

\_\_\_\_\_ is a process used in web development that turns website code into the interactive pages users see when they visit a website.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Rendering     |
| <input type="radio"/>            | Navigation    |
| <input type="radio"/>            | Encapsulation |
| <input type="radio"/>            | Compilation   |

Click to Save Answer & Move to Next Question

The three layers in a typical web based three-layered architecture are presentation, business and \_\_\_\_\_ layers.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Application |
| <input type="radio"/>            | Session     |
| <input checked="" type="radio"/> | Data        |
| <input type="radio"/>            | Physical    |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is basically a checklist of things which must be handled while developing your design.

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | Web Application Testing |
| <input type="radio"/>            | HTML and CSS            |
| <input checked="" type="radio"/> | Web Application Frame   |
| <input type="radio"/>            | Web Application Design  |

Click to Save Answer & Move to Next Question

Which of the following statements is **not true** about web applications?

Select the correct option

 Reload Math Equations

- |                                  |                                                                                                 |
|----------------------------------|-------------------------------------------------------------------------------------------------|
| <input type="radio"/>            | The core of a web application is its server-side logic.                                         |
| <input checked="" type="radio"/> | Web application runs locally on the operating system (OS) of the device.                        |
| <input type="radio"/>            | Web applications are accessed by users through a web browser with an active network connection. |
| <input type="radio"/>            | The web application layer itself can be comprised of many distinct layers.                      |

\_\_\_\_\_ layer of web applications is usually developed using HTML, CSS and JavaScript.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Network      |
| <input checked="" type="radio"/> | Presentation |
| <input type="radio"/>            | Data         |
| <input type="radio"/>            | Business     |

Presentation entities store the data that is used to manage the views in the \_\_\_\_\_ layer of the web application.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Data         |
| <input checked="" type="radio"/> | Presentation |
| <input type="radio"/>            | Network      |
| <input type="radio"/>            | Business     |

Presentation entities are used to store state related to the -----.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | processing Logic |
| <input checked="" type="radio"/> | user interface   |
| <input type="radio"/>            | data             |
| <input type="radio"/>            | business         |

Consider the \_\_\_\_\_ requirements for your presentation entities, if they are to be passed across the network or stored on the disk.

**Select the correct option**

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Domain          |
| <input type="radio"/>            | Parsing         |
| <input checked="" type="radio"/> | Serialization   |
| <input type="radio"/>            | Externalization |



When designing a request-processing strategy, you should ensure separation of concerns by implementing the request-processing logic separately from the \_\_\_\_\_.

**Select the correct option**

|                                  |                     |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | User Interface      |
| <input type="radio"/>            | Business Logic Tier |
| <input type="radio"/>            | Database            |
| <input type="radio"/>            | Network             |

Supervising controller pattern is a form of the \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | MVC         |
| <input type="radio"/>            | shared-data |
| <input checked="" type="radio"/> | MVP         |
| <input type="radio"/>            | broker      |

It is recommended to divide user interface (UI) processing into three distinct roles by using the \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | broker          |
| <input type="radio"/>            | pipe-and-Filter |
| <input checked="" type="radio"/> | MVC or MVP      |
| <input type="radio"/>            | shared-data     |

[Click to Go to Previous Question](#)

[Click to Go to Next Question](#)

\_\_\_\_\_ is the process of verifying what the users have access to.

Select the correct option

 Reload Math Equations

|                                  |                             |
|----------------------------------|-----------------------------|
| <input type="radio"/>            | Communication               |
| <input checked="" type="radio"/> | Authorization               |
| <input type="radio"/>            | Logging and instrumentation |
| <input type="radio"/>            | Authentication              |

\_\_\_\_\_ is the process of verifying what the users have access to.

Select the correct option

 Reload Math Equations

|                                  |                             |
|----------------------------------|-----------------------------|
| <input type="radio"/>            | Communication               |
| <input checked="" type="radio"/> | Authorization               |
| <input type="radio"/>            | Logging and instrumentation |
| <input type="radio"/>            | Authentication              |

For designing an effective logging and instrumentation strategy, \_\_\_\_\_ may be required in legal proceedings to prove the wrongdoing of individuals.

**Select the correct option**

|                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Log files     |
| <input type="radio"/>            | Binary files  |
| <input type="radio"/>            | Regular files |

\_\_\_\_\_ is the term used to refer to a visitor's time browsing a web site.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Navigation |
| <input checked="" type="radio"/> | Session    |
| <input type="radio"/>            | Latency    |
| <input type="radio"/>            | Frequency  |

Session expiry (timeout) is very important in web applications to achieve -----.

Select the correct option

 Reload Math Equations

☒

security

☐

efficiency

☐

usability

☐

performance



At the time of designing an efficient and secure session-management strategy, for security reasons, use \_\_\_\_\_.

**Select the correct option**

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Navigation         |
| <input checked="" type="radio"/> | Session Expiry     |
| <input type="radio"/>            | Request Processing |

\_\_\_\_\_ is the action of checking or proving the accuracy of something.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | Validation  |
| <input type="radio"/>            | Testing     |
| <input type="radio"/>            | Assessment  |
| <input type="radio"/>            | Recognition |

For web applications, it is recommended to design validation strategy to \_\_\_\_\_malicious input.

Select the correct option

 Reload Math Equations

- |                                  |                                 |
|----------------------------------|---------------------------------|
| <input type="radio"/>            | constrain and sanitize          |
| <input type="radio"/>            | constrain                       |
| <input type="radio"/>            | reject                          |
| <input checked="" type="radio"/> | constrain, reject, and sanitize |

Designing an effective validation solution, use \_\_\_\_\_ validation for security.

**Select the correct option**

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Admin-side  |
| <input checked="" type="radio"/> | Server-side |
| <input type="radio"/>            | Tester-side |
| <input type="radio"/>            | Client-side |

In a layered architecture, the software application is divided into various \_\_\_\_\_ layers, with each layer located on top of a lower layer.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Horizontal |
| <input type="radio"/>            | Parallel   |
| <input type="radio"/>            | Vertical   |
| <input type="radio"/>            | Contiguous |

N-tier architecture also known as a \_\_\_\_\_architecture.

**Select the correct option**

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Three-tier |
| <input checked="" type="radio"/> | Multi-tier |
| <input type="radio"/>            | Two-tier   |

At the time of designing presentation layer, use \_\_\_\_\_ validation to improve user experience and responsiveness.

**Select the correct option**

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Admin-side  |
| <input type="radio"/>            | Tester-side |
| <input type="radio"/>            | Server-side |
| <input checked="" type="radio"/> | Client-side |

In web applications design, the user interaction logic should be \_\_\_\_\_ the UI components.

Select the correct option

 Reload Math Equations

- |                                  |                |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | decoupled from |
| <input type="radio"/>            | compared with  |
| <input type="radio"/>            | combined with  |
| <input type="radio"/>            | merged with    |



At the time of designing presentation layer, use \_\_\_\_\_ validation to improve user experience and responsiveness.

**Select the correct option**

☐

Admin-side

☒

Client-side

☐

Tester-side

For performance improvement in web applications, it is recommended to cache the \_\_\_\_\_ only .

Select the correct option

 Reload Math Equations

- |                                  |                                |
|----------------------------------|--------------------------------|
| <input type="radio"/>            | main page                      |
| <input type="radio"/>            | index page                     |
| <input checked="" type="radio"/> | static pages or parts of pages |
| <input type="radio"/>            | dynamic pages                  |

The \_\_\_\_\_ layer coordinates the application, performs detailed processes and makes logical decisions.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Data         |
| <input checked="" type="radio"/> | Business     |
| <input type="radio"/>            | Physical     |
| <input type="radio"/>            | Presentation |

At the time of designing business layer for your Web application, design business entities that represent the real world data, and use these to pass data between \_\_\_\_\_.

**Select the correct option**

|                                  |                              |
|----------------------------------|------------------------------|
| <input checked="" type="radio"/> | Components                   |
| <input type="radio"/>            | Users                        |
| <input type="radio"/>            | Business-critical operations |
| <input type="radio"/>            | Web services                 |

In web applications, the \_\_\_\_\_ layer implements the business logic and workflows.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Communication |
| <input type="radio"/>            | Presentation  |
| <input type="radio"/>            | Data          |
| <input checked="" type="radio"/> | Business      |

Click to Save Answer & Move to Next Question

It is recommended to design a separate \_\_\_\_\_ layer to hide the details of the database from other layers of the web application.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Application  |
| <input checked="" type="radio"/> | Data         |
| <input type="radio"/>            | Presentation |
| <input type="radio"/>            | Business     |

At the time of designing a web application, \_\_\_\_\_ is used to access external services using service agents.

**Select the correct option**

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Presentation Layer |
| <input checked="" type="radio"/> | Data Layer         |
| <input type="radio"/>            | Service Layer      |

The \_\_\_\_\_ layer provides services and data for the business layer.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | Data         |
| <input type="radio"/>            | Application  |
| <input type="radio"/>            | Business     |
| <input type="radio"/>            | Presentation |



At the time of designing a web application, \_\_\_\_\_ is used to access external services using service agents.

**Select the correct option**

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Service Layer      |
| <input checked="" type="radio"/> | Data Layer         |
| <input type="radio"/>            | Business Layer     |
| <input type="radio"/>            | Presentation Layer |

In web applications design, it is recommended to consider \_\_\_\_\_common business logic functions.

Select the correct option

 Reload Math Equations

|                                  |                          |
|----------------------------------|--------------------------|
| <input type="radio"/>            | excluding                |
| <input type="radio"/>            | ignoring                 |
| <input checked="" type="radio"/> | centralizing and reusing |
| <input type="radio"/>            | decentralizing           |

The \_\_\_\_\_ layer coordinates the application, performs detailed processes and makes logical decisions.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Physical     |
| <input type="radio"/>            | Presentation |
| <input type="radio"/>            | Data         |
| <input checked="" type="radio"/> | Business     |

Consider designing a separate service layer if you plan to expose your \_\_\_\_\_ logic using a web service.

**Select the correct option**

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Coding   |
| <input checked="" type="radio"/> | Business |
| <input type="radio"/>            | Formal   |
| <input type="radio"/>            | Informal |

It is recommended to design the services (in service-oriented web applications) to be \_\_\_\_\_, assuming that the same message request may arrive multiple times.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Idempotent |
| <input type="radio"/>            | Mirrored   |
| <input type="radio"/>            | Static     |
| <input type="radio"/>            | Dynamic    |

It is recommended to consider designing a separate \_\_\_\_\_ if your applications' business layer is being deployed on a remote tier, or if you want to expose the business logic using a web service.

Select the correct option

 Reload Math Equations

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | connection pooling |
| <input type="radio"/>            | database           |
| <input type="radio"/>            | application layer  |
| <input checked="" type="radio"/> | service layer      |

Click on the correct answer to see the correct answer.

Designing a separate business layer to implement the business logic and workflows \_\_\_\_\_ the testability of your application.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Reduces  |
| <input checked="" type="radio"/> | Improves |

Question # 2 of 3

Time Left: 05 sec(s)

\_\_\_\_\_ is a measure of how well your system or components allow you to create test criteria and execute tests to determine if the criteria are met.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Usability   |
| <input type="radio"/>            | Testing     |
| <input checked="" type="radio"/> | Testability |
| <input type="radio"/>            | Test suite  |

[Click to View Answer & Move to Next Question](#)



You should consider testability when designing your architecture because it makes it easier to diagnose problems earlier and reduce \_\_\_\_\_ cost.

Select the correct option

 Reload Math Equations

|                                  |                            |
|----------------------------------|----------------------------|
| <input type="radio"/>            | Requirements specification |
| <input type="radio"/>            | Testing                    |
| <input checked="" type="radio"/> | Maintenance                |
| <input type="radio"/>            | Deployment                 |

Which of the following statements is **not true** about web applications' performance?

Select the correct option

 Reload Math Equations

- |                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| <input checked="" type="radio"/> | Avoid batch operations, as it maximizes round trips across boundaries. |
| <input type="radio"/>            | Always avoid unnecessary round trips over the network.                 |
| <input type="radio"/>            | Implementing caching techniques improve performance and scalability.   |
| <input type="radio"/>            | Performance is a non-functional requirement.                           |

In web applications, batch operations are performed to \_\_\_\_\_ round trips across boundaries.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input checked="" type="radio"/> | Minimize |
| <input type="radio"/>            | Maximize |

At the time of designing security mechanism for your web application, consider \_\_\_\_\_ and digitally signing any sensitive data that is sent across the network.

**Select the correct option**

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Logging    |
| <input type="radio"/>            | Analyzing  |
| <input type="radio"/>            | Decrypting |
| <input checked="" type="radio"/> | Encrypting |

It is recommended to design a security strategy for web applications and implement \_\_\_\_\_ to protect your application from a range of threats.

Select the correct option

 Reload Math Equations

- |                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| <input type="radio"/>            | Authentication and authorization                   |
| <input checked="" type="radio"/> | authentication, authorization, and data validation |
| <input type="radio"/>            | data validation                                    |
| <input type="radio"/>            | verification and validation                        |

Which of the following statements is **not true** about security considerations in web applications?

Select the correct option

 Reload Math Equations

- |                                  |                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------|
| <input type="radio"/>            | Consider the use of input validation and data validation at every trust boundary. |
| <input type="radio"/>            | Consider implementing a strong authorization mechanism to protect business logic. |
| <input checked="" type="radio"/> | Consider the use of relying on client-side validation only.                       |
| <input type="radio"/>            | Consider the use of authentication at every trust boundary.                       |

At the time of deploying a Web application, you might need to consider \_\_\_\_\_ trade-offs.

**Select the correct option**

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Testing  |
| <input checked="" type="radio"/> | Design   |
| <input type="radio"/>            | Security |

Question # 2019

Time Left: 00 sec(s)

When deploying a web application, It is recommended to use \_\_\_\_\_ deployment to achieve better scalability and to allow each layer to be secured separately.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Distributed     |
| <input type="radio"/>            | Non-distributed |



When deploying a web application, It is recommended to use \_\_\_\_\_ deployment to maximize performance.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Distributed     |
| <input checked="" type="radio"/> | Non-distributed |

Click to Save Answer & Move to Next Question

When deploying a web application, it is recommended to take into account how layer and component location will affect the \_\_\_\_\_ of the application.

Select the correct option

 Reload Math Equations

- |                                  |                                        |
|----------------------------------|----------------------------------------|
| <input type="radio"/>            | scalability, and security              |
| <input type="radio"/>            | performance and scalability            |
| <input type="radio"/>            | performance and security               |
| <input checked="" type="radio"/> | performance, scalability, and security |

5/11/2025, 10:11 AM

When deploying a web application on multiple servers, the use of \_\_\_\_\_ helps to maximize response times, resource utilization, and throughput.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Load balancing  |
| <input type="radio"/>            | De-multiplexing |
| <input type="radio"/>            | Multiplexing    |
| <input type="radio"/>            | Paging          |

We can use \_\_\_\_\_ to distribute requests on multiple servers so that they can be handled by different Web servers.

**Select the correct option**

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Load balancing  |
| <input type="radio"/>            | Load increasing |
| <input type="radio"/>            | Power balancing |

When deploying a web application on multiple servers, it is recommended to use \_\_\_\_\_ to distribute requests so that they are handled by different web servers.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Multiplexing    |
| <input checked="" type="radio"/> | Load balancing  |
| <input type="radio"/>            | Paging          |
| <input type="radio"/>            | De-multiplexing |

\_\_\_\_\_ provides an elastic set of resources through the use of virtual machines, virtual networks, and virtual file systems.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Data mining      |
| <input type="radio"/>            | Big data         |
| <input type="radio"/>            | Data warehousing |
| <input checked="" type="radio"/> | Cloud computing  |

Click to Save Answer & Move to Next Question

Question # 5 of 5

Time Left: 05 sec(s)

The term \_\_\_\_\_ is generally used to describe data centers available to many users over the Internet.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Big data         |
| <input checked="" type="radio"/> | Cloud computing  |
| <input type="radio"/>            | Data warehousing |
| <input type="radio"/>            | Data mining      |

\_\_\_\_\_ relies on sharing of resources to achieve coherence and economies of scale.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Cloud computing  |
| <input type="radio"/>            | Data mining      |
| <input type="radio"/>            | Big data         |
| <input type="radio"/>            | Data warehousing |



\_\_\_\_\_ is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Data mining      |
| <input type="radio"/>            | Data warehousing |
| <input checked="" type="radio"/> | Cloud computing  |
| <input type="radio"/>            | Big data         |

\_\_\_\_\_ relies on sharing of resources to achieve coherence and economies of scale.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Data warehousing |
| <input type="radio"/>            | Big data         |
| <input type="radio"/>            | Data mining      |
| <input checked="" type="radio"/> | Cloud computing  |

The term \_\_\_\_\_ is generally used to describe data centers available to many users over the Internet.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Big data         |
| <input checked="" type="radio"/> | Cloud computing  |
| <input type="radio"/>            | Data mining      |
| <input type="radio"/>            | Data warehousing |

Click to Save Answer & Move to Next Question

In Cloud computing, services and resources are available over the network to a \_\_\_\_\_ collection of clients, independent of location and device.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Homogeneous   |
| <input checked="" type="radio"/> | Heterogeneous |

Click to Save Answer & Move to Next Question

The cloud provider can dynamically assign physical and virtual resources to consumers, according to their instantaneous demands through a process called \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Resource pooling |
| <input type="radio"/>            | Multi-tasking    |
| <input type="radio"/>            | DHCP             |
| <input type="radio"/>            | Multi-tenancy    |

Storage, processing, memory, network bandwidth, and virtual machines related to cloud computing are examples of \_\_\_\_\_.

**Select the correct option**

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Hosts     |
| <input checked="" type="radio"/> | Resources |
| <input type="radio"/>            | Clouds    |
| <input type="radio"/>            | Services  |

In \_\_\_\_\_ model, the capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, including OS and applications.

Select the correct option

 Reload Math Equations

|                                  |                                    |
|----------------------------------|------------------------------------|
| <input checked="" type="radio"/> | Infrastructure as a Service (IaaS) |
| <input type="radio"/>            | Hardware as a Service (HaaS)       |
| <input type="radio"/>            | Platform as a Service (PaaS)       |
| <input type="radio"/>            | Software as a Service (SaaS)       |

In \_\_\_\_\_ the consumer uses applications run on a cloud where they can be as varied as email, calendars, video streaming, and real-time collaboration.

**Select the correct option**

|                                  |                                    |
|----------------------------------|------------------------------------|
| <input checked="" type="radio"/> | Software as a Service (SaaS)       |
| <input type="radio"/>            | Private Cloud Deployment           |
| <input type="radio"/>            | Infrastructure as a Service (IaaS) |
| <input type="radio"/>            | Platform as a Service (PaaS)       |



The primary purpose of an organization that owns a \_\_\_\_\_ infrastructure is not the selling of cloud services.

Select the correct option

 Reload Math Equations

☒ Private cloud

☐ Public cloud

\_\_\_\_\_ is the use of a single application that is responsible for supporting distinct classes or users.

**Select the correct option**

|                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | Resource Pooling          |
| <input type="radio"/>            | Ubiquitous Network Access |
| <input type="radio"/>            | Rapid Elasticity          |
| <input checked="" type="radio"/> | Multi-Tenancy             |

In \_\_\_\_\_ model, a variety of services are provided to the consumer, which can include various database options, load-balancing options, availability options, and development environments.

Select the correct option

 Reload Math Equations

- |                                  |                                    |
|----------------------------------|------------------------------------|
| <input type="radio"/>            | Platform as a Service (PaaS)       |
| <input type="radio"/>            | Software as a Service (SaaS)       |
| <input type="radio"/>            | Hardware as a Service (HaaS)       |
| <input checked="" type="radio"/> | Infrastructure as a Service (IaaS) |

Question # 2019

Time Left: 00:00:00

The cloud provider can dynamically assign physical and virtual resources to consumers, according to their instantaneous demands through a process called \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Multi-tenancy    |
| <input type="radio"/>            | Multi-tasking    |
| <input type="radio"/>            | DHCP             |
| <input checked="" type="radio"/> | Resource pooling |

In a multi-tenant application the \_\_\_\_\_ is responsible for avoiding incompatibilities for older versions.

**Select the correct option**

|                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | System Analyst         |
| <input type="radio"/>            | Database administrator |
| <input checked="" type="radio"/> | Vendor                 |
| <input type="radio"/>            | IT department          |

Storage, processing, memory, network bandwidth, and virtual machines related to cloud computing are examples of \_\_\_\_\_ .

**Select the correct option**

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Clouds    |
| <input type="radio"/>            | Services  |
| <input checked="" type="radio"/> | Resources |

Stateless services, Data stored across zones and \_\_\_\_\_ are the options utilized by the architect to improve availability quality attributes in cloud environment.

**Select the correct option**

|                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Distributed data     |
| <input checked="" type="radio"/> | Graceful degradation |
| <input type="radio"/>            | State full services  |

"Stateless services – mirroring" and "Data stored across zones – partition" techniques are used as a backup option for the \_\_\_\_\_ of the cloud services.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Reliability     |
| <input type="radio"/>            | Maintainability |
| <input type="radio"/>            | Security        |
| <input checked="" type="radio"/> | Availability    |



The Cloud is just like a platform, and architecting a system to execute in the cloud, especially using \_\_\_\_\_, is no different than architecting for any other distributed platform.

Select the correct option

 Reload Math Equations

- |                                  |                                    |
|----------------------------------|------------------------------------|
| <input checked="" type="radio"/> | Infrastructure as a Service (IaaS) |
| <input type="radio"/>            | Hardware as a Service (Haas)       |
| <input type="radio"/>            | Platform as a Service (PaaS)       |
| <input type="radio"/>            | Software as a Service (SaaS)       |

Various concerns of an application, such as UI, business logic, authorization, logging, and database access, are not kept separate in a \_\_\_\_\_ architecture.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | pipe-and-filter |
| <input type="radio"/>            | micro-service   |
| <input checked="" type="radio"/> | monolithic      |
| <input type="radio"/>            | layered         |

Monolithic architecture is typically well suited for \_\_\_\_\_ applications.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | distributed      |
| <input type="radio"/>            | very large       |
| <input type="radio"/>            | service-oriented |
| <input checked="" type="radio"/> | small            |

Which of the following statements is not true about monolithic applications?

Select the correct option

 Reload Math Equations

- |                                  |                                                   |
|----------------------------------|---------------------------------------------------|
| <input type="radio"/>            | Maintainability is low.                           |
| <input checked="" type="radio"/> | Migration to a different technology is very easy. |
| <input type="radio"/>            | They typically have better performance.           |
| <input type="radio"/>            | Components are tightly coupled.                   |

In \_\_\_\_\_ architecture, the components are interconnected and interdependent, resulting in a tightly coupled code.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | pipe-and-filter |
| <input type="radio"/>            | layered         |
| <input checked="" type="radio"/> | monolithic      |
| <input type="radio"/>            | micro-service   |

In service-oriented architecture, a \_\_\_\_\_ is a part of the software application that performs a specific task, providing functionality to other parts of the same software application or to other software applications.

Select the correct option

 Reload Math Equations

|                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | component      |
| <input type="radio"/>            | design pattern |
| <input checked="" type="radio"/> | service        |
| <input type="radio"/>            | class          |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is an architectural pattern for developing software systems by creating loosely coupled, interoperable services that work together to automate business processes.

**Select the correct option**

- |                                  |                                |
|----------------------------------|--------------------------------|
| <input type="radio"/>            | Function-oriented architecture |
| <input type="radio"/>            | State-oriented architecture    |
| <input checked="" type="radio"/> | Service-oriented architecture  |

A key aspect of service-oriented architecture is that it decomposes application logic into smaller units that can be reused and \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | distributed |
| <input type="radio"/>            | migrated    |
| <input type="radio"/>            | outsourced  |
| <input type="radio"/>            | duplicated  |



In service-oriented architecture, services can vary in size and one \_\_\_\_\_ can be composed of multiple other services to accomplish its task.

Select the correct option

 Reload Math Equations

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | class        |
| <input type="radio"/>            | architecture |
| <input type="radio"/>            | structure    |
| <input checked="" type="radio"/> | service      |

The key difference of service-oriented architecture from a traditional distributed architecture is \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                      |
|----------------------------------|--------------------------------------|
| <input type="radio"/>            | the use of web services              |
| <input type="radio"/>            | its loosely coupled nature           |
| <input checked="" type="radio"/> | how its core components are designed |
| <input type="radio"/>            | its distributed nature               |

Service-oriented architecture (SOA) achieves a \_\_\_\_\_, which is a design principle that separates a software system into parts, with each part addressing a distinct concern.

Select the correct option

 Reload Math Equations

|                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | dynamic programming    |
| <input type="radio"/>            | design pattern         |
| <input type="radio"/>            | architectural pattern  |
| <input checked="" type="radio"/> | separation of concerns |

Service-oriented architecture (SOA) achieves a \_\_\_\_\_, which is a design principle that separates a software system into parts, with each part addressing a distinct concern.

Select the correct option

 Reload Math Equations

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | dynamic programming    |
| <input type="radio"/>            | design pattern         |
| <input type="radio"/>            | architectural pattern  |
| <input checked="" type="radio"/> | separation of concerns |

Service-Oriented Architecture increases \_\_\_\_\_ which allows for the sharing of data and the reuse of logic.

**Select the correct option**

|                                  |                            |
|----------------------------------|----------------------------|
| <input checked="" type="radio"/> | Intrinsic Interoperability |
| <input type="radio"/>            | Extrinsic Interoperability |
| <input type="radio"/>            | Federation                 |
| <input type="radio"/>            | Vendor Diversity           |

In service-oriented architecture, organizations have the flexibility to choose whether they want to replace certain systems, allowing them to use a phased approach to\_\_\_\_\_

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | installation |
| <input checked="" type="radio"/> | migration    |
| <input type="radio"/>            | maintenance  |
| <input type="radio"/>            | deployment   |

Click to Save Answer & Move to Next Question

Due to its design nature, service-oriented architecture works very well with \_\_\_\_\_development methodologies.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | agile       |
| <input type="radio"/>            | waterfall   |
| <input type="radio"/>            | sequential  |
| <input type="radio"/>            | prototyping |

Click to Save Answer & Move to Next Question

Business logic, in the form of business entities and business processes, exists in the form of physical \_\_\_\_\_ within service-oriented architecture.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | patterns |
| <input type="radio"/>            | designs  |
| <input type="radio"/>            | classes  |
| <input checked="" type="radio"/> | services |



Growing larger in scope and functionality as compared to legacy systems will add \_\_\_\_\_ to a software system.

**Select the correct option**

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Better Performance |
| <input type="radio"/>            | Portability        |
| <input type="radio"/>            | More Scope         |
| <input checked="" type="radio"/> | Complexity         |

In micro-service architecture, a micro-service should be a \_\_\_\_\_ to the consumers of the service, hiding its implementation and complexity.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | prototype             |
| <input checked="" type="radio"/> | black box             |
| <input type="radio"/>            | architectural pattern |
| <input type="radio"/>            | design pattern        |

A microservice architecture is well-suited for \_\_\_\_\_ software systems.

**Select the correct option**

|                                  |                   |
|----------------------------------|-------------------|
| <input type="radio"/>            | Small and Simple  |
| <input type="radio"/>            | Indecomposable    |
| <input checked="" type="radio"/> | Large and Complex |
| <input type="radio"/>            | Unanalysable      |

Question # 3 of 3

Time Left: 73 sec(s)

A \_\_\_\_\_ architecture is particularly well-suited for large and/or complex software systems.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | MVC           |
| <input type="radio"/>            | monolithic    |
| <input checked="" type="radio"/> | micro-service |
| <input type="radio"/>            | MVP           |

The \_\_\_\_\_ architecture pattern builds software applications using small, autonomous, independently versioned, self-contained services.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | cloud computing |
| <input type="radio"/>            | MVC             |
| <input checked="" type="radio"/> | micro-service   |
| <input type="radio"/>            | monolithic      |

Click to Save Answer & Move to Next Question

Question # 1019

Time Left: 05 sec(s)

In micro-service architecture, all services are autonomous and \_\_\_\_\_ deployable.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | combinedly    |
| <input type="radio"/>            | batch-wise    |
| <input checked="" type="radio"/> | independently |
| <input type="radio"/>            | mutually      |

----- architecture has better fault isolation as compared to other architectures.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | micro-service |
| <input type="radio"/>            | MVC           |
| <input type="radio"/>            | monolithic    |
| <input type="radio"/>            | MVP           |

A characteristics of microservice architecture is to provide \_\_\_\_\_ data storage capability.

**Select the correct option**

|                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | Independent |
| <input type="radio"/>            | Huge        |
| <input type="radio"/>            | Lesser      |



With \_\_\_\_\_, a single application uses multiple programming languages in its implementation.

Select the correct option

 Reload Math Equations

☐

pair programming

☐

polyglot persistence

☐

multi-threading

☒

polyglot programming

Click on the correct answer

Question # 2 of 3

Time Left: 62 sec(s)

\_\_\_\_\_architecture gives you the option of using multiple programming languages, runtimes, frameworks, and data storage technologies.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | pipe-and-filter |
| <input type="radio"/>            | client-server   |
| <input type="radio"/>            | monolithic      |
| <input checked="" type="radio"/> | micro-service   |

With \_\_\_\_\_ in micro-service architecture, multiple persistence options are used within a single application.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | multi-threading      |
| <input type="radio"/>            | pair programming     |
| <input checked="" type="radio"/> | polyglot persistence |
| <input type="radio"/>            | polyglot programming |

\_\_\_\_\_ applications do not need to make a call to the database 2<sup>nd</sup> time, as session info is stored on the server itself, hence it is faster.

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input checked="" type="radio"/> | Stateful  |
| <input type="radio"/>            | Stateless |

Typical problems with \_\_\_\_\_ applications are Load balancing and scalability.

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Stateless |
| <input checked="" type="radio"/> | Stateful  |

Any data that flows through a \_\_\_\_\_ service is typically transitory and the state is stored only in a separate back-end service like a database.

Select the correct option

 Reload Math Equations

☐ stateful

☒ Stateless

\_\_\_\_\_ is very important for decomposing a complex system into a right set of micro-services.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | development skills    |
| <input type="radio"/>            | deploying environment |
| <input checked="" type="radio"/> | domain knowledge      |
| <input type="radio"/>            | programming tools     |

A micro-service application with services that are too \_\_\_\_\_, results in a large number of services, and hence increases the overall complexity.

Select the correct option

 Reload Math Equations

- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | coarse-grained |
| <input checked="" type="radio"/> | fine-grained   |



Architects' focus is on the boundaries and interfaces. Internal details are dealt at the \_\_\_\_\_ level.

Select the correct option

 Reload Math Equations

- |                                  |                          |
|----------------------------------|--------------------------|
| <input type="radio"/>            | requirements elicitation |
| <input type="radio"/>            | deployment               |
| <input checked="" type="radio"/> | design                   |
| <input type="radio"/>            | maintenance              |

\_\_\_\_\_ drives the software system which is being developed.

Select the correct option

 Reload Math Equations

|                                  |                           |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Business domain knowledge |
| <input type="radio"/>            | Deployment environment    |
| <input type="radio"/>            | Development tools         |
| <input type="radio"/>            | Testing team              |

The \_\_\_\_\_ is a collection of hotspots that you can use to analyze your application architecture.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Architecture pattern |
| <input type="radio"/>            | Application type     |
| <input type="radio"/>            | Architecture style   |
| <input checked="" type="radio"/> | Architecture frame   |

\_\_\_\_\_ helps in organizing and thinking about key engineering decisions.

Select the correct option

 Reload Math Equations

|                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Architecture style   |
| <input type="radio"/>            | Application type     |
| <input checked="" type="radio"/> | Architecture frame   |
| <input type="radio"/>            | Architecture pattern |

Which of the following is not a component of the Architecture Meta-Frame?

Select the correct option

 Reload Math Equations

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Quality attributes |
| <input type="radio"/>            | Architecture frame |
| <input type="radio"/>            | Application types  |
| <input checked="" type="radio"/> | Interpreters       |

\_\_\_\_\_ helps in organizing and thinking about key engineering decisions.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Architecture style   |
| <input checked="" type="radio"/> | Architecture frame   |
| <input type="radio"/>            | Application type     |
| <input type="radio"/>            | Architecture pattern |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ helps you to turn core features such as caching, data access, validation, and workflow into actions.

Select the correct option

 Reload Math Equations

|                                  |                      |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Architecture frame   |
| <input type="radio"/>            | Application type     |
| <input type="radio"/>            | Architecture style   |
| <input type="radio"/>            | Architecture pattern |

\_\_\_\_\_ is the process of allowing an authenticated user to access the resources by checking whether the user has access rights to the system.

Select the correct option

 Reload Math Equations

|                                  |                             |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | Authorization               |
| <input type="radio"/>            | Authentication              |
| <input type="radio"/>            | Logging and instrumentation |
| <input type="radio"/>            | Communication               |

Click to Save Answer & Move to Next Question



\_\_\_\_\_ is the process to ensure and confirms a user's identity and whether the user is registered or not to access particular data.

Select the correct option

 Reload Math Equations

|                                  |                             |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | Authentication              |
| <input type="radio"/>            | Communication               |
| <input type="radio"/>            | Authorization               |
| <input type="radio"/>            | Logging and instrumentation |

Which of the following does not belong to the category of the Architecture Frame?

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Cashing       |
| <input type="radio"/>            | Workflow      |
| <input checked="" type="radio"/> | Constraints   |
| <input type="radio"/>            | Communication |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is achieved using passwords, biometrics, MFA or OTPs etc.

Select the correct option

 Reload Math Equations

- |                                  |                             |
|----------------------------------|-----------------------------|
| <input type="radio"/>            | Logging and instrumentation |
| <input checked="" type="radio"/> | Authentication              |
| <input type="radio"/>            | Communication               |
| <input type="radio"/>            | Authorization               |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is the process of verifying what the users have access to.

Select the correct option

 Reload Math Equations

|                                  |                             |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | Authorization               |
| <input type="radio"/>            | Logging and instrumentation |
| <input type="radio"/>            | Communication               |
| <input type="radio"/>            | Authentication              |

[Click to Get Answer & Move to Next Question](#)

\_\_\_\_\_ is achieved through settings maintained by security teams.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Normalization    |
| <input type="radio"/>            | Authentication   |
| <input type="radio"/>            | De-normalization |
| <input checked="" type="radio"/> | Authorization    |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 85 sec(s)

The Architecture Meta-Frame was developed by \_\_\_\_\_ Corporation.

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Apple     |
| <input type="radio"/>            | Oracle    |
| <input type="radio"/>            | Google    |
| <input checked="" type="radio"/> | Microsoft |

In case of a client/server application, data caching on the client machine is not possible.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | False |
| <input type="radio"/>            | True  |

Caching solutions can be employed in different tiers / layers of a system.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |



\_\_\_\_\_ communication refers to the exchange of data between two or more parties without the requirement for all the recipients to respond immediately (not in real-time).

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Formal       |
| <input checked="" type="radio"/> | Asynchronous |
| <input type="radio"/>            | Visual       |
| <input type="radio"/>            | Synchronous  |

Click to Save Answer & Move to Next Question

Communication strategies usually deals with \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | data in use               |
| <input checked="" type="radio"/> | data in motion            |
| <input type="radio"/>            | data at rest              |
| <input type="radio"/>            | data in use and in motion |

Which of the following is not an example of asynchronous communication?

Select the correct option

 Reload Math Equations

|                                  |                |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | Phone call     |
| <input type="radio"/>            | Text messaging |
| <input type="radio"/>            | Letters        |
| <input type="radio"/>            | Email          |

\_\_\_\_\_communication means that two or more people exchange information in real-time.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Visual       |
| <input type="radio"/>            | Written      |
| <input checked="" type="radio"/> | Synchronous  |
| <input type="radio"/>            | Asynchronous |

[Click to Reload Math Equations](#)

Communication strategies usually deals with \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                           |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | data in motion            |
| <input type="radio"/>            | data in use               |
| <input type="radio"/>            | data at rest              |
| <input type="radio"/>            | data in use and in motion |

A \_\_\_\_\_ in a database system must maintain atomicity, consistency, isolation, and durability – commonly known as ACID properties:

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Relation    |
| <input type="radio"/>            | Thread      |
| <input checked="" type="radio"/> | Transaction |
| <input type="radio"/>            | Tuple       |

Question # 2 of 3

Time Left: 57 sec(s)

\_\_\_\_\_ states that a transaction must be treated as an atomic unit, that is, either all of its operations are executed or none.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Isolation   |
| <input type="radio"/>            | Consistency |
| <input type="radio"/>            | Durability  |
| <input checked="" type="radio"/> | Atomicity   |

\_\_\_\_\_ is the ability to execute more than one programs or tasks simultaneously.

Select the correct option

 Reload Math Equations

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Efficiency  |
| <input checked="" type="radio"/> | Concurrency |
| <input type="radio"/>            | Scalability |
| <input type="radio"/>            | Performance |

Click to Save Answer & Move to Next Question



-----strategies describe techniques for abstracting and accessing data in your data store.

Select the correct option

 Reload Math Equations

|                                  |                                  |
|----------------------------------|----------------------------------|
| <input type="radio"/>            | Data communication               |
| <input checked="" type="radio"/> | Data access                      |
| <input type="radio"/>            | Caching and state                |
| <input type="radio"/>            | Authentication and authorization |

\_\_\_\_\_ strategies describe techniques for abstracting and accessing data in your data store.

Select the correct option

 Reload Math Equations

- |                                  |                                  |
|----------------------------------|----------------------------------|
| <input type="radio"/>            | Authentication and authorization |
| <input checked="" type="radio"/> | Data access                      |
| <input type="radio"/>            | Data communication               |
| <input type="radio"/>            | Caching and state                |

Question # 2013

Time Left: 00 sec(s)

\_\_\_\_\_ is single row of a table, which contains a single record for that relation.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Primary key |
| <input type="radio"/>            | Foreign key |
| <input checked="" type="radio"/> | Tuple       |
| <input type="radio"/>            | Attribute   |

Click to Give Answer & Move to Next Question

In relational databases, data is stored in the form of \_\_\_\_\_

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Word Files    |
| <input type="radio"/>            | Excel sheets  |
| <input checked="" type="radio"/> | Tables        |
| <input type="radio"/>            | Notepad Files |

[Click to Save Answer & Move to Next Question](#)

\_\_\_\_\_ is concerned with the Look & Feel of the software application.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Authorization   |
| <input type="radio"/>            | Authentication  |
| <input type="radio"/>            | Communication   |
| <input checked="" type="radio"/> | User experience |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is the interaction between the users and your application.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Communication   |
| <input type="radio"/>            | Authorization   |
| <input checked="" type="radio"/> | User experience |
| <input type="radio"/>            | Authentication  |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ refers to how easy a product is to use.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Performance |
| <input type="radio"/>            | Efficiency  |
| <input type="radio"/>            | Reliability |
| <input checked="" type="radio"/> | Usability   |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is/are a design decision with zero degrees of freedom.

Select the correct option

 Reload Math Equations

- |                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Testing             |
| <input type="radio"/>            | Coding              |
| <input checked="" type="radio"/> | Constraints         |
| <input type="radio"/>            | System architecture |

Click to Save Answer & Move to Next Question



Question # 3013

Time left: 03 sec(s)

Product recommendations is also called\_\_\_\_\_ recommendations.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Structural    |
| <input type="radio"/>            | Process       |
| <input type="radio"/>            | Design        |
| <input type="radio"/>            | Client-Server |

A three-tier layered service-oriented architecture may be the right thing for a \_\_\_\_\_enterprise's web-based B2B system but completely wrong for an avionics application.

Select the correct option

 Reload Math Equations

|                                  |        |
|----------------------------------|--------|
| <input type="radio"/>            | Micro  |
| <input type="radio"/>            | Medium |
| <input type="radio"/>            | Small  |
| <input checked="" type="radio"/> | Large  |

Question # 1 of 3

Time Left: 74 sec(s)

Modern thinking on architecture assumes that your design will \_\_\_\_\_ during the implementation stages of the application.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | be fixed         |
| <input type="radio"/>            | remain constant  |
| <input type="radio"/>            | remain unchanged |
| <input checked="" type="radio"/> | evolve over time |

Agile software development refers to a set of software development methodologies based on \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | prototyping            |
| <input type="radio"/>            | linear development     |
| <input checked="" type="radio"/> | iterative development  |
| <input type="radio"/>            | sequential development |

Create your architecture with evolution in mind so that it will be \_\_\_\_\_ in terms of adapting to requirements that are not fully known at the start of the design process.

**Select the correct option**

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Agile      |
| <input type="radio"/>            | Steady     |
| <input type="radio"/>            | Consistent |
| <input type="radio"/>            | Stable     |

Question # 10/2

Time left: 00 sec(s)

Use threat models to understand\_\_\_\_\_.

Select the correct option

☐

Risks and vulnerabilities

☐

Issues and risks

☐

Issues and vulnerabilities

Question # 1 of 2

Time Left: 47 sec(s)

Use threat models to understand \_\_\_\_\_.

Select the correct option



Risks and vulnerabilities



Issues and risks



Issues and vulnerabilities

Question # 2 of 2

Time Left: 40 sec(s)

We can use \_\_\_\_\_ of the architecture to communicate and share the design efficiently with all the stakeholders.

Select the correct option

 Reload Math Equations

- |                                  |                                        |
|----------------------------------|----------------------------------------|
| <input type="radio"/>            | models and views                       |
| <input type="radio"/>            | models                                 |
| <input type="radio"/>            | views                                  |
| <input checked="" type="radio"/> | models, views and other visualizations |



Which approach you should consider while refining your architecture?

**Select the correct option**

|                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | Updated and adaptive      |
| <input checked="" type="radio"/> | Incremental and iterative |
| <input type="radio"/>            | Iterative and adaptive    |

In case of a new architecture, your initial baseline is the first \_\_\_\_\_ architectural design from which candidate architectures will be built.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | detailed      |
| <input checked="" type="radio"/> | high-level    |
| <input type="radio"/>            | low-level     |
| <input type="radio"/>            | comprehensive |

----- architectures are used to iteratively test and improve the software architecture.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Basic      |
| <input checked="" type="radio"/> | Candidate  |
| <input type="radio"/>            | Baseline   |
| <input type="radio"/>            | High-level |

A \_\_\_\_\_ architecture describes the existing system (how your system looks today).

Select the correct option

 Reload Math Equations

- |                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | modern    |
| <input type="radio"/>            | complete  |
| <input type="radio"/>            | candidate |
| <input checked="" type="radio"/> | baseline  |

[Click to Get the Solution of Math Equations](#)

Use \_\_\_\_\_ architectures to get the big picture right, and use \_\_\_\_\_ architectures to iteratively test and improve your architecture.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Standard , original  |
| <input type="radio"/>            | Original , standard  |
| <input checked="" type="radio"/> | Baseline , candidate |
| <input type="radio"/>            | Candidate , baseline |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ is an end-to-end test of a small segment of the application.

Select the correct option

 Reload Math Equations

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | Candidate architecture |
| <input type="radio"/>            | Application type       |
| <input checked="" type="radio"/> | Architectural spike    |
| <input type="radio"/>            | Baseline architecture  |

Click to Save Answer & Move to Next Question

The purpose of a/an \_\_\_\_\_ is to reduce risk and to test potential paths.

Select the correct option

 Reload Math Equations

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | Candidate architecture |
| <input type="radio"/>            | Application type       |
| <input checked="" type="radio"/> | Architectural spike    |
| <input type="radio"/>            | Baseline architecture  |

An architectural spike will result in a/an \_\_\_\_\_ that can be tested against a baseline.

Select the correct option

 Reload Math Equations

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | quality attribute      |
| <input type="radio"/>            | key hot spots          |
| <input type="radio"/>            | application type       |
| <input checked="" type="radio"/> | candidate architecture |



The purpose of an architectural spike is to reduce \_\_\_\_\_ and to test potential paths.

Select the correct option

|                                  |        |
|----------------------------------|--------|
| <input checked="" type="radio"/> | Risk   |
| <input type="radio"/>            | Effort |
| <input type="radio"/>            | Time   |
| <input type="radio"/>            | Cost   |

A use case diagram depicts the \_\_\_\_\_ functionality of a system.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | low-level     |
| <input type="radio"/>            | comprehensive |
| <input checked="" type="radio"/> | high-level    |
| <input type="radio"/>            | detailed      |

Architecturally significant use cases, exercise enough of the design to be useful in \_\_\_\_\_ the architecture.

**Select the correct option**

|                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | Evaluating  |
| <input type="radio"/>            | Supervision |
| <input type="radio"/>            | Handling    |

The \_\_\_\_\_ represents a canonical view of a typical application architecture, using a layered style to separate functional areas into separate layers.

Select the correct option

 Reload Math Equations

|                                  |                                    |
|----------------------------------|------------------------------------|
| <input checked="" type="radio"/> | Reference application architecture |
| <input type="radio"/>            | 4+1 View model                     |
| <input type="radio"/>            | Architectural drivers              |
| <input type="radio"/>            | Architecture meta-frame            |

Reference application architecture is developed by \_\_\_\_\_ corporation.

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Adobe     |
| <input type="radio"/>            | IBM       |
| <input checked="" type="radio"/> | Microsoft |
| <input type="radio"/>            | Google    |

The \_\_\_\_\_ demonstrates how a typical application might interact with its users, external systems, data sources, and services.

Select the correct option

 Reload Math Equations

|                                  |                                    |
|----------------------------------|------------------------------------|
| <input type="radio"/>            | Architecture meta-frame            |
| <input type="radio"/>            | Architectural drivers              |
| <input checked="" type="radio"/> | Reference application architecture |
| <input type="radio"/>            | 4+1 View model                     |

Which of the following is not an example of architectural styles?

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | N-tier          |
| <input checked="" type="radio"/> | Encapsulation   |
| <input type="radio"/>            | Object-oriented |
| <input type="radio"/>            | Client/server   |

Question # 3 of 3

Time Left: 50 sec(s)

The choice of architectural styles depends upon:

Select the correct option

 Reload Math Equations

- |                                  |                                                                      |
|----------------------------------|----------------------------------------------------------------------|
| <input type="radio"/>            | Application type only                                                |
| <input type="radio"/>            | Scenarios only                                                       |
| <input checked="" type="radio"/> | Application type, scenarios, as well as requirements and constraints |
| <input type="radio"/>            | Requirements and constraints only                                    |



Question # 1 of 3

Time Left: 70 sec(s)

Each software architecture pattern consists of a \_\_\_\_\_.

Select the correct option

 Reload Math Equations

☐

context and a problem statement

☒

context, problem statement, and a solution

☐

problem statement and a solution

☐

problem statement

A / an \_\_\_\_\_ is a solution to a recurring problem that is well understood, in a particular context.

Select the correct option

 Reload Math Equations

- |                                  |                               |
|----------------------------------|-------------------------------|
| <input type="radio"/>            | architecture frame            |
| <input type="radio"/>            | application type              |
| <input type="radio"/>            | architecture class            |
| <input checked="" type="radio"/> | software architecture pattern |

Click to Save Answer & Move to Next Question

-----codify knowledge and experience into a solution that we can reuse.

Select the correct option

 Reload Math Equations

- |                                  |                                |
|----------------------------------|--------------------------------|
| <input type="radio"/>            | Application type               |
| <input type="radio"/>            | Quality attribute              |
| <input type="radio"/>            | Architecture frame             |
| <input checked="" type="radio"/> | Software architecture patterns |

Click to Save Answer & Move to Next Question

A / an \_\_\_\_\_ is a solution to a recurring problem that is well understood, in a particular context.

Select the correct option

 Reload Math Equations

|                                  |                               |
|----------------------------------|-------------------------------|
| <input checked="" type="radio"/> | software architecture pattern |
| <input type="radio"/>            | architecture class            |
| <input type="radio"/>            | application type              |
| <input type="radio"/>            | architecture frame            |

Good object oriented design is specific to knowledge about polymorphism, inheritance and abstraction.

Select the correct option

 Reload Math Equations

☒ True

☐ False

\_\_\_\_\_ provides us a set of guidelines to structure our systems to avoid future evolutionary problems.

Select the correct option

 Reload Math Equations

- |                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Simple association |
| <input type="radio"/>            | Symmetric pattern  |
| <input checked="" type="radio"/> | Design pattern     |
| <input type="radio"/>            | Organized solution |

Software architecture patterns are similar to design patterns, except that they are broader in scope and are applied at the \_\_\_\_\_.

**Select the correct option**

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Planning level     |
| <input type="radio"/>            | Programming level  |
| <input type="radio"/>            | Design level       |
| <input checked="" type="radio"/> | Architecture level |

Question # 2 of 3

Time Left: 73 sec(s)

\_\_\_\_\_ are broader in scope and are applied at the software architecture level.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Constraints           |
| <input checked="" type="radio"/> | Architecture patterns |
| <input type="radio"/>            | Design patterns       |
| <input type="radio"/>            | Coding paradigms      |

Click to Save Answer & Move to Next Question



\_\_\_\_\_ is a grouping of design decisions that provide a high-level structure and behavior for software systems.

Select the correct option

 Reload Math Equations

|                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Coding paradigm      |
| <input checked="" type="radio"/> | Architecture pattern |
| <input type="radio"/>            | Constraints          |
| <input type="radio"/>            | Design pattern       |

\_\_\_\_\_ are more fine-grained and are used at the software implementation level.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Design patterns       |
| <input type="radio"/>            | Architecture patterns |
| <input type="radio"/>            | Coding paradigms      |
| <input type="radio"/>            | Constraints           |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 65 sec(s)

The most published patterns (in literature) are \_\_\_\_\_ patterns.

Select the correct option

 Reload Math Equations

- |                                  |                               |
|----------------------------------|-------------------------------|
| <input checked="" type="radio"/> | component-and-connector (C&C) |
| <input type="radio"/>            | allocation                    |
| <input type="radio"/>            | deployment                    |
| <input type="radio"/>            | module                        |

----- show how the system will relate to non-software structures in its environment.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Dynamic structures    |
| <input checked="" type="radio"/> | Deployment structures |
| <input type="radio"/>            | Static structures     |
| <input type="radio"/>            | Module structures     |

\_\_\_\_\_ are the implementation units of the software system.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Dynamic structures    |
| <input checked="" type="radio"/> | Static structures     |
| <input type="radio"/>            | Deployment structures |

Patterns can be categorized by the \_\_\_\_\_ type of elements that they show.

**Select the correct option**

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Prototype     |
| <input type="radio"/>            | Architectural |
| <input type="radio"/>            | Significant   |
| <input checked="" type="radio"/> | Dominant      |

Question # 3013

Time Left: 52 sec (3)

\_\_\_\_\_ focus on the way the elements interact with each other at runtime to carry out the system's functions.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Static structures     |
| <input checked="" type="radio"/> | Dynamic structures    |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ provide the structure and main components of the software system being built.

Select the correct option

 Reload Math Equations

☐

Design patterns

☐

Constraints

☒

Architecture patterns

☐

Coding paradigms

Click to Save Answer & Move to Next Question



The \_\_\_\_\_ divides the software into units called layers.

**Select the correct option**

☐

Factory method pattern

☒

Layered pattern

☐

Builder pattern

☐

Singleton pattern

The layered pattern divides the software system into units called layers, where each layer is a grouping of \_\_\_\_\_ that offers a cohesive set of services.

Select the correct option

 Reload Math Equations

|                                  |         |
|----------------------------------|---------|
| <input type="radio"/>            | classes |
| <input type="radio"/>            | objects |
| <input checked="" type="radio"/> | modules |
| <input type="radio"/>            | design  |

Click to Save Answer & Move to Next Question

In Layered pattern (whether the layers are open or closed), each layer is \_\_\_\_\_ the layers above it.

Select the correct option

 Reload Math Equations

☐

dependent on

☒

independent of

☐

reliant on

☐

conditional on

Click to Save Answer & Move to Next Question

In a layered architecture, the software application is divided into various \_\_\_\_\_ layers, with each layer located on top of a lower layer.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Vertical   |
| <input type="radio"/>            | Parallel   |
| <input type="radio"/>            | Contiguous |
| <input checked="" type="radio"/> | Horizontal |

\_\_\_\_\_ layers provide layers of isolation, which makes code easier to change, write, and understand.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Parallel |
| <input checked="" type="radio"/> | Closed   |
| <input type="radio"/>            | Open     |
| <input type="radio"/>            | Adjacent |

Maintainability is low in \_\_\_\_\_ layers because multiple layers can call into another layer, increasing the number of dependencies and making changes more difficult.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input checked="" type="radio"/> | open     |
| <input type="radio"/>            | closed   |
| <input type="radio"/>            | parallel |
| <input type="radio"/>            | adjacent |

With a \_\_\_\_\_ layer, requests that are flowing down the stack from the layer above must go through it and cannot bypass it.

Select the correct option

 Reload Math Equations

- |                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | open     |
| <input type="radio"/>            | parallel |
| <input checked="" type="radio"/> | closed   |
| <input type="radio"/>            | adjacent |

Click to Save Answer & Move to Next Question

When partitioning application logic, \_\_\_\_\_ are a way to organize functionality and components.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Layers     |
| <input type="radio"/>            | Classes    |
| <input type="radio"/>            | Structures |
| <input type="radio"/>            | Tiers      |



Tiers are \_\_\_\_\_ separation.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input checked="" type="radio"/> | physical |
| <input type="radio"/>            | units    |
| <input type="radio"/>            | module   |
| <input type="radio"/>            | logical  |

Layers are \_\_\_\_\_ separation.

**Select the correct option**

|                                  |         |
|----------------------------------|---------|
| <input type="radio"/>            | Module  |
| <input type="radio"/>            | Units   |
| <input checked="" type="radio"/> | Logical |

Question # 1 of 3

Time Left: 36 sec(s)

Applications using a layered architecture may have higher levels of \_\_\_\_\_ if more than one application can reuse the same layer.

Select the correct option

 Reload Math Equations

- |                                  |              |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | reusability  |
| <input type="radio"/>            | usability    |
| <input type="radio"/>            | security     |
| <input type="radio"/>            | availability |

Dependencies between layers can be \_\_\_\_\_ in a layered architecture, which further reduces complexity.

Select the correct option

 Reload Math Equations

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | prioritized |
| <input type="radio"/>            | increased   |
| <input checked="" type="radio"/> | minimized   |
| <input type="radio"/>            | ignored     |

Click to Save Answer & Move to Next Question

When an application using a layered architecture is deployed to different tiers, \_\_\_\_\_ is / are increased.

Select the correct option

 Reload Math Equations

- |                                  |                              |
|----------------------------------|------------------------------|
| <input checked="" type="radio"/> | Scalability and availability |
| <input type="radio"/>            | Availability                 |
| <input type="radio"/>            | Agility                      |
| <input type="radio"/>            | Scalability                  |

Although the different layers can be designed to be independent, a requirement change may require changes in multiple layers, hence this type of coupling lowers the overall \_\_\_\_\_ of the software application.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Reusability  |
| <input checked="" type="radio"/> | Agility      |
| <input type="radio"/>            | Availability |
| <input type="radio"/>            | Scalability  |

When layers are deployed to separate physical tiers, there is an additional cost of \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                          |
|----------------------------------|--------------------------|
| <input type="radio"/>            | Monetary                 |
| <input checked="" type="radio"/> | Performance and Monetary |
| <input type="radio"/>            | Performance              |
| <input type="radio"/>            | Nothing                  |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ are also known as component-and-connector (C&C) structures.

Select the correct option

 Reload Math Equations

|                                  |                       |         |
|----------------------------------|-----------------------|---------|
| <input type="radio"/>            | Deployment structures |         |
| <input type="radio"/>            | Static structures     |         |
| <input type="radio"/>            | Allocation structures |         |
| <input checked="" type="radio"/> | Dynamic structures    | Correct |



Client-server architecture, also known as a \_\_\_\_\_ architecture.

**Select the correct option**

|                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | Two-tier    |
| <input type="radio"/>            | Three-tier  |
| <input type="radio"/>            | Single-tier |

When the server contains a significant portion of the logic and is handling a large share of the workload, then this type of client is known as a  
-----

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Thin client   |
| <input type="radio"/>            | Super client  |
| <input type="radio"/>            | Thick client  |
| <input type="radio"/>            | Master client |

Question # 3 of 3

Time Left: 81 sec(s)

When the client contains a significant portion of the logic and is handling a large share of the workload, it is known as a \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Master client |
| <input checked="" type="radio"/> | Thick client  |
| <input type="radio"/>            | Thin client   |
| <input type="radio"/>            | Super client  |

\_\_\_\_\_ focus on the way the elements interact with each other at runtime to carry out the system's functions.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Static structures     |
| <input checked="" type="radio"/> | Dynamic structures    |

The \_\_\_\_\_ tier is sometimes referred to as the application tier.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Presentation |
| <input type="radio"/>            | Software     |
| <input type="radio"/>            | Data         |
| <input checked="" type="radio"/> | Business     |

The \_\_\_\_\_ tier provides services and data for the business tier.

Select the correct option

 Reload Math Equations

☐

Business

☒

Data

☐

Application

☐

Presentation

The \_\_\_\_\_ tier provides functionality for the application's user interface.

Select the correct option

 Reload Math Equations

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Business     |
| <input type="radio"/>            | Application  |
| <input type="radio"/>            | Data         |
| <input checked="" type="radio"/> | Presentation |

Click to Save Answer & Move to Next Question

N-tier architecture also known as a \_\_\_\_\_ architecture.

**Select the correct option**



Multi-tier



Three-tier



Two-tier



Which of the following statements is **not true** in the context of layer bridging in layered architecture.

Select the correct option

 Reload Math Equations

- |                                  |                                                               |
|----------------------------------|---------------------------------------------------------------|
| <input type="radio"/>            | Any layer can use any other layer immediately below it.       |
| <input type="radio"/>            | Any layer can use any of other layers below it.               |
| <input type="radio"/>            | Any layer can use the "side car" containing common utilities. |
| <input checked="" type="radio"/> | Any layer can use any other layer above it.                   |

\_\_\_\_\_ deals with mapping from software structures to the system's organizational, developmental, installation, and execution environments.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | C&C structures        |
| <input type="radio"/>            | Dynamic structures    |
| <input type="radio"/>            | Static structures     |
| <input checked="" type="radio"/> | Allocation structures |

Components are deployed onto \_\_\_\_\_ in order to execute in allocation structure.

Select the correct option

|                                  |                            |         |
|----------------------------------|----------------------------|---------|
| <input type="radio"/>            | System                     |         |
| <input type="radio"/>            | Both Hardware and Software |         |
| <input checked="" type="radio"/> | Hardware                   | Correct |
| <input type="radio"/>            | Software                   |         |

Shared Data (or repository) Pattern is an example of \_\_\_\_\_ Patterns.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Allocation |
| <input type="radio"/>            | Layered    |
| <input type="radio"/>            | Module     |
| <input checked="" type="radio"/> | C&C type   |

----- pattern is a fundamental building block of the distributed systems.

Select the correct option

 Reload Math Equations

|                                  |        |
|----------------------------------|--------|
| <input type="radio"/>            | Module |
| <input checked="" type="radio"/> | Broker |
| <input type="radio"/>            | Unit   |
| <input type="radio"/>            | Static |

The broker pattern separates users of services from providers of services by inserting an intermediary, called a \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |         |
|----------------------------------|---------|
| <input type="radio"/>            | Service |
| <input type="radio"/>            | Server  |
| <input type="radio"/>            | Client  |
| <input checked="" type="radio"/> | Broker  |

Question # 3 of 3

Time Left: 34 sec(s)

The question that arise in our minds while implementing a system that has been developed from a collection of complex services is \_\_\_\_\_.

Select the correct option

 Reload Math Equations

☐

How the system's graphic will be easy to use?

☐

How the systems will look?

☒

How the systems will interoperate?

☐

How the system's mobile application will be developed?

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 65 sec(s)

In the broker pattern, due to the presence of the broker, the client remains completely ignorant of the \_\_\_\_\_ of the server.

Select the correct option

 Reload Math Equations

- |                                  |                                         |
|----------------------------------|-----------------------------------------|
| <input checked="" type="radio"/> | identity, location, and characteristics |
| <input type="radio"/>            | identity, and location                  |
| <input type="radio"/>            | identity, and characteristics           |
| <input type="radio"/>            | identity                                |



In the context of the broker pattern, with the use of the broker, the complexity of the software system \_\_\_\_\_

Select the correct option

 Reload Math Equations

- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | decreases      |
| <input type="radio"/>            | remains stable |
| <input checked="" type="radio"/> | increases      |
| <input type="radio"/>            | subside        |

Which of the following statements is **not true** about broker pattern:

Select the correct option

 Reload Math Equations

- |                                  |                                                                         |
|----------------------------------|-------------------------------------------------------------------------|
| <input type="radio"/>            | Broker can be a single point of failure for a large and complex system. |
| <input type="radio"/>            | Broker can potentially be bottlenecks for communication.                |
| <input type="radio"/>            | Broker can be an obvious point of attack from a security perspective.   |
| <input checked="" type="radio"/> | The use of broker reduces the complexity of the software system.        |

Question # 3 of 3

Time Left: 79 sec(s)

Layered pattern is an example of \_\_\_\_\_ patterns.

Select the correct option

 Reload Math Equations

|                                  |               |         |
|----------------------------------|---------------|---------|
| <input type="radio"/>            | C&C type      |         |
| <input type="radio"/>            | Client-Server |         |
| <input checked="" type="radio"/> | Module        | Correct |
| <input type="radio"/>            | Allocation    |         |

Click to Save Answer & Move to Next Question

MVC stands for \_\_\_\_\_

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Mobile view component |
| <input type="radio"/>            | Model view component  |
| <input checked="" type="radio"/> | Model view controller |
| <input type="radio"/>            | Mobile view connector |

MVC is a type of \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/>            | module                  |
| <input type="radio"/>            | allocation              |
| <input type="radio"/>            | static                  |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ pattern provides a structure for building user interfaces and provides a separation of the different responsibilities involved.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | MVC             |
| <input type="radio"/>            | Module          |
| <input type="radio"/>            | Broker          |
| <input type="radio"/>            | Pipe-and-Filter |

Question # 1 of 3

Time Left: 70 sec(s)

The pattern of interaction in the \_\_\_\_\_ pattern is characterized by successive transformations of streams of data.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | broker          |
| <input type="radio"/>            | MVC             |
| <input type="radio"/>            | client - server |
| <input checked="" type="radio"/> | pipe-and-filter |

The pattern of interaction in the \_\_\_\_\_ pattern is characterized by successive transformations of streams of data.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | broker          |
| <input type="radio"/>            | MVC             |
| <input type="radio"/>            | client - server |
| <input checked="" type="radio"/> | pipe-and-filter |

Click to Save Answer & Move to Next Question



Pipe-and-Filter is a type of \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | module                  |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/>            | static                  |
| <input type="radio"/>            | allocation              |

Click to Save Answer & Move to Next Question

**Question # 2 of 3****Time Left: 83 sec(s)**

In\_\_\_\_\_ pattern, a software system is divided into reusable, loosely coupled components (connected to each other) with simple, generic interaction mechanisms, that (being independent) can execute in parallel.

**Select the correct option**[Reload Math Equations](#)

- |                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | pipe-and-filter |
| <input type="radio"/>            | client - server |
| <input type="radio"/>            | broker          |
| <input type="radio"/>            | MVC             |

Question # 6 of 6

Time Left: 10:00 (9)

The pattern of interaction in the \_\_\_\_\_ pattern is characterized by successive transformations of streams of data.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | broker          |
| <input type="radio"/>            | MVC             |
| <input type="radio"/>            | client - server |
| <input checked="" type="radio"/> | pipe-and-filter |

In \_\_\_\_\_ pattern, the independent processing at each step supports reuse, parallelization, and simplified reasoning about overall behavior of the system.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | broker          |
| <input type="radio"/>            | MVC             |
| <input checked="" type="radio"/> | pipe-and-filter |
| <input type="radio"/>            | client - server |

Slide 8 of 10 - Reload Math Equations

Which of the following statements is **not true** about pipe-and-filter architectural pattern?

Select the correct option

 Reload Math Equations

- |                                  |                                                                                                    |
|----------------------------------|----------------------------------------------------------------------------------------------------|
| <input type="radio"/>            | A filter typically does not know the identity of its upstream or downstream filters.               |
| <input checked="" type="radio"/> | It is always a good choice for an interactive system.                                              |
| <input type="radio"/>            | Having large numbers of independent filters can add substantial amounts of computational overhead. |
| <input type="radio"/>            | It may not be appropriate for long-running computations without any checkpoint/restore mechanism.  |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 71 sec(s)

----- Views are very important for asking questions about the system's runtime properties.

Select the correct option

 Reload Math Equations

|                                  |                         |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | Component-and-Connector |
| <input type="radio"/>            | Modules                 |
| <input type="radio"/>            | Static structures       |
| <input type="radio"/>            | Deployment structures   |

In client-server pattern, the \_\_\_\_\_ can be a performance bottleneck and it can be a single point of failure.

Select the correct option

 Reload Math Equations

- |                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | clients            |
| <input checked="" type="radio"/> | server             |
| <input type="radio"/>            | clients and server |
| <input type="radio"/>            | services           |

Click to Save Answer & Move to Next Question

In client-server pattern (a type of C&C pattern), components are \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                     |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | clients and servers |
| <input type="radio"/>            | servers             |
| <input type="radio"/>            | clients             |
| <input type="radio"/>            | software protocol   |

Click to Save Answer & Move to Next Question



Client-server pattern is a type of \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | module                  |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/>            | deployment              |
| <input type="radio"/>            | allocation              |

Click to Save Answer & Move to Next Question

In shared-data pattern, there are several data accessors and at least \_\_\_\_\_shared-data store(s).

Select the correct option

 Reload Math Equations



one



two



zero



three

Shared-data pattern is a type of \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | allocation              |
| <input type="radio"/>            | deployment              |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/>            | module                  |

Click to Save Answer & Move to Next Question

Which of the following statements is **not true** about shared-data pattern?

Select the correct option

 Reload Math Equations

- |                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| <input checked="" type="radio"/> | This pattern does not support modifiability.                           |
| <input type="radio"/>            | The producers and consumers of the shared data may be tightly coupled. |
| <input type="radio"/>            | The shared-data store may be a performance bottleneck.                 |
| <input type="radio"/>            | The shared-data store is potentially a single point of failure.        |

Click to Save Answer & Move to Next Question

\_\_\_\_\_embody decisions as to how the system will relate to non-software structures in its environment.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | C&C structures        |
| <input type="radio"/>            | Static structures     |
| <input type="radio"/>            | Dynamic structures    |
| <input checked="" type="radio"/> | Allocation structures |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ are also known as deployment structures.

Select the correct option

 Reload Math Equations

|                                  |                                    |
|----------------------------------|------------------------------------|
| <input type="radio"/>            | Component-and-Connector structures |
| <input checked="" type="radio"/> | Allocation structures              |
| <input type="radio"/>            | Static structures                  |
| <input type="radio"/>            | Dynamic structures                 |

Tiers can be created to group components of similar functionality; in which case it is a \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

|                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | deployment              |
| <input type="radio"/>            | module                  |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/>            | allocation              |

Click to Save Answer & Move to Next Question

Multi-tier pattern, when describe mapping software elements to computing elements, makes it a/an \_\_\_\_\_ pattern.

Select the correct option

 Reload Math Equations

|                                  |                                 |
|----------------------------------|---------------------------------|
| <input type="radio"/>            | C&C                             |
| <input type="radio"/>            | MVC                             |
| <input checked="" type="radio"/> | Allocation <span>Correct</span> |
| <input type="radio"/>            | Broker                          |

[Click to view answers to Math Questions](#)



In \_\_\_\_\_ architecture, the components are interconnected and interdependent, resulting in a tightly coupled code.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | micro-service   |
| <input type="radio"/>            | layered         |
| <input type="radio"/>            | pipe-and-filter |
| <input checked="" type="radio"/> | monolithic      |

In \_\_\_\_\_ user interface, business logic, authorization and database access like components work as a single unit resulting in tightly coupled code.

Select the correct option

 Reload Math Equations

- |                                  |                               |
|----------------------------------|-------------------------------|
| <input type="radio"/>            | Layered Architecture          |
| <input type="radio"/>            | MVC Architecture              |
| <input checked="" type="radio"/> | Monolithic Architecture       |
| <input type="radio"/>            | Service-Oriented Architecture |

Click to Save Answer & Move to Next Question

Various concerns of an application, such as UI, business logic, authorization, logging, and database access, are not kept separate in a \_\_\_\_\_ architecture.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | pipe-and-filter |
| <input type="radio"/>            | layered         |
| <input checked="" type="radio"/> | monolithic      |
| <input type="radio"/>            | micro-service   |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 78 sec(s)

A \_\_\_\_\_ architecture is one in which a software application is designed to work as a single, self-contained unit.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | pipe-and-filter |
| <input type="radio"/>            | micro-service   |
| <input checked="" type="radio"/> | monolithic      |
| <input type="radio"/>            | layered         |

\_\_\_\_\_ is a drawback in Monolithic applications because a change in one part is more likely to affect other parts of the application.

Select the correct option

 Reload Math Equations

|                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Easy to Scale        |
| <input type="radio"/>            | Loose Coupling       |
| <input checked="" type="radio"/> | Low Maintainability  |
| <input type="radio"/>            | High Maintainability |

Due to the tightly coupled components, it is difficult to make changes to the monolithic applications (a change in one part is more likely to affect other parts), thus decreasing the \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | maintainability |
| <input type="radio"/>            | performance     |
| <input type="radio"/>            | efficiency      |
| <input type="radio"/>            | usability       |

Monolithic architecture is typically well suited for \_\_\_\_\_ applications.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | distributed      |
| <input type="radio"/>            | very large       |
| <input type="radio"/>            | service-oriented |
| <input checked="" type="radio"/> | small            |

In designing web applications we can implement loose coupling between different layers with the help of \_\_\_\_\_ mechanism.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Specification |
| <input type="radio"/>            | Polymorphism  |
| <input type="radio"/>            | Inheritance   |
| <input checked="" type="radio"/> | Abstraction   |

Click to Save Answer & Move to Next Question



Which of the following statements is **not true** about "Layering in web applications"?

Select the correct option

 Reload Math Equations

- |                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| <input type="radio"/>            | It allows to monitor and optimize the performance of each layer separately. |
| <input type="radio"/>            | Layering is used to partition an application logically.                     |
| <input checked="" type="radio"/> | Layering decreases scalability of the web applications.                     |
| <input type="radio"/>            | It helps to create maintainable code.                                       |

Click to Save Answer & Move to Next Question

We can consider using a/an \_\_\_\_\_ to allow Web server to process other incoming requests in long-running or blocking operations.

Select the correct option

 Reload Math Equations

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | Top to Bottom Approach |
| <input checked="" type="radio"/> | Asynchronous approach  |
| <input type="radio"/>            | Synchronous approach   |
| <input type="radio"/>            | Multiplexed approach   |

\_\_\_\_\_ and output buffering is used to reduce round trips b/w the browser and the web server.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Mapping  |
| <input type="radio"/>            | Tunning  |
| <input checked="" type="radio"/> | Caching  |
| <input type="radio"/>            | Layering |

Click to Save Answer & Move to Next Question

Question # 1012

Time Left: 01 sec(s)

Instead of sending sensitive data in plain text form we need to consider using \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input checked="" type="radio"/> | Secure Sockets Layer (SSL) Encryption |
| <input type="radio"/>            | User Datagram Protocol (UDP)          |
| <input type="radio"/>            | Transmission Control Protocol (TCP)   |
| <input type="radio"/>            | File Transfer Protocol                |

We should design our web application to \_\_\_\_\_ users whenever they cross a trust boundary.

Select the correct option

 Reload Math Equations

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | educate      |
| <input type="radio"/>            | locate       |
| <input type="radio"/>            | truncate     |
| <input checked="" type="radio"/> | authenticate |

\_\_\_\_\_ is basically a checklist of things which must be handled while developing your design.

Select the correct option

 Reload Math Equations

|                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | Web Application Testing |
| <input type="radio"/>            | Web Application Design  |
| <input type="radio"/>            | HTML and CSS            |
| <input checked="" type="radio"/> | Web Application Frame   |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ can leave an application vulnerable to spoofing attacks, dictionary attacks, session hijacking, and other types of attack.

Select the correct option

 Reload Math Equations

|                                  |                          |
|----------------------------------|--------------------------|
| <input type="radio"/>            | Audit and Log activities |
| <input type="radio"/>            | Strong Authorization     |
| <input type="radio"/>            | Strong Passwords         |
| <input checked="" type="radio"/> | Weak Authorization       |

Which of the following statements is **not true** about "Authentication in web applications" ?

Select the correct option

 Reload Math Equations

- |                                  |                                                                                                      |
|----------------------------------|------------------------------------------------------------------------------------------------------|
| <input type="radio"/>            | Strong password policies are required (i.e password length and complexity, and password expiration). |
| <input type="radio"/>            | Strong account management practices are required, such as account lockouts and expirations.          |
| <input type="radio"/>            | We need to identify trust boundaries within web application layers.                                  |
| <input checked="" type="radio"/> | Never use platform-supported authentication mechanisms. Always develop your own custom mechanisms.   |

Submit Answer



Improper or weak \_\_\_\_\_ strategy leads to information disclosure, data tampering, and elevation of privileges.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Authorization    |
| <input type="radio"/>            | Normalization    |
| <input type="radio"/>            | De-normalization |
| <input type="radio"/>            | Authentication   |

Improper or weak \_\_\_\_\_ strategy leads to information disclosure, data tampering, and elevation of privileges.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Authorization    |
| <input type="radio"/>            | Normalization    |
| <input type="radio"/>            | De-normalization |
| <input type="radio"/>            | Authentication   |

\_\_\_\_\_ determines the tasks that an authenticated identity can perform, and identifies the resources that can be accessed.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | De-normalization |
| <input type="radio"/>            | Normalization    |
| <input type="radio"/>            | Authentication   |
| <input checked="" type="radio"/> | Authorization    |

\_\_\_\_\_ determines the tasks that an authenticated identity can perform, and identifies the resources that can be accessed.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Authorization    |
| <input type="radio"/>            | De-normalization |
| <input type="radio"/>            | Authentication   |
| <input type="radio"/>            | Normalization    |

[Click to go to previous question](#)

Question # 1 of 3

Time Left: 84 sec(s)

Caching solutions can be employed in different tiers / layers of a system.

Select the correct option

 Reload Math Equations

☐ False

☒ True

Click to Save Answer & Move to Next Question

In case of a client/server application, data caching on the client machine is not possible.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | True  |
| <input checked="" type="radio"/> | False |

At the time of cache designing, avoid caching \_\_\_\_\_ data.

**Select the correct option**

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Volatile   |
| <input type="radio"/>            | Stable     |
| <input type="radio"/>            | Persistent |

For performance improvement, it is required to cache data in a \_\_\_\_\_format.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | encrypted    |
| <input checked="" type="radio"/> | ready-to-use |
| <input type="radio"/>            | volatile     |
| <input type="radio"/>            | disposable   |



Incorrect caching choices and poor caching design can degrade \_\_\_\_\_ of the software application.

Select the correct option

 Reload Math Equations

- |                                  |                                          |
|----------------------------------|------------------------------------------|
| <input type="radio"/>            | Performance and security                 |
| <input type="radio"/>            | Security and responsiveness              |
| <input type="radio"/>            | Performance and responsiveness           |
| <input checked="" type="radio"/> | Performance, security and responsiveness |

Question # 1 of 3

Time Left: 58 sec(s)

Correct \_\_\_\_\_ in your web pages prevents sensitive exception details from being revealed to the user.

Select the correct option

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Web crawling       |
| <input type="radio"/>            | Event Handling     |
| <input checked="" type="radio"/> | Exception Handling |

A/an \_\_\_\_\_ is an event, which occurs during the execution of a program that disrupts the normal flow of the program's instructions.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | association |
| <input checked="" type="radio"/> | exception   |
| <input type="radio"/>            | composition |
| <input type="radio"/>            | aggregation |

Which of the following statements is **not true** about exception management?

Select the correct option

 Reload Math Equations

- |                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| <input type="radio"/>            | Do not reveal sensitive information through exception details.         |
| <input checked="" type="radio"/> | Always use exceptions to control the logical flow of your application. |
| <input type="radio"/>            | Design a global error handler to catch unhandled exceptions.           |
| <input type="radio"/>            | Log exception related information in an error file.                    |

Click to Save Answer & Move to Next Question

For designing an effective logging and instrumentation strategy, \_\_\_\_\_ may be required in legal proceedings to prove the wrongdoing of individuals.

**Select the correct option**

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Socket files |
| <input checked="" type="radio"/> | Log files    |
| <input type="radio"/>            | Binary files |

\_\_\_\_\_ can be used to detect suspicious activities as well as legal proceedings to prove the wrongdoing of individuals.

Select the correct option

 Reload Math Equations

|                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Architectural styles |
| <input checked="" type="radio"/> | Log files            |
| <input type="radio"/>            | Design patterns      |
| <input type="radio"/>            | Transactions         |

Designing a consistent \_\_\_\_\_ structure for your application will help to minimize user confusion as well as reduce the apparent complexity of the application.

**Select the correct option**

|                                  |              |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | Navigation   |
| <input type="radio"/>            | Database     |
| <input type="radio"/>            | Presentation |

Designing a consistent navigation structure for your application will \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                                   |
|----------------------------------|---------------------------------------------------|
| <input type="radio"/>            | maximize user confusion                           |
| <input checked="" type="radio"/> | reduce the apparent complexity of the application |
| <input type="radio"/>            | decrease the performance of the application       |
| <input type="radio"/>            | decrease the usability of the application         |



It is recommended to design the navigation strategy in a way that separates it from the \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | processing logic |
| <input type="radio"/>            | Internet         |
| <input type="radio"/>            | user             |
| <input type="radio"/>            | keyboard         |

\_\_\_\_\_ is a well-suited mechanism for designing the page layout.

Select the correct option

 Reload Math Equations

|                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | C language             |
| <input checked="" type="radio"/> | Cascading style sheets |
| <input type="radio"/>            | COBOL                  |
| <input type="radio"/>            | Fortran                |

Question # 2013

Time Left: 70 sec(s)

It is recommended to design your application so that the page layout can be separated from the specific UI components and \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | UI processing |
| <input type="radio"/>            | keyboard      |
| <input type="radio"/>            | user          |
| <input type="radio"/>            | Internet      |

\_\_\_\_\_ are the appropriate persons for building the page layout of the web applications.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | SQA team members      |
| <input checked="" type="radio"/> | Designers             |
| <input type="radio"/>            | Developers            |
| <input type="radio"/>            | Requirement engineers |

A class should contains the functionality that is relates to this class. That make it this class more .....

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Virtual   |
| <input type="radio"/>            | Inherited |
| <input type="radio"/>            | Coupled   |
| <input checked="" type="radio"/> | Cohesive  |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 72 sec(s)

The developer should analyze the piece of code that is being extracted to create the extract method and then move this method to the related class using move method refactoring to make that class more cohesive.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |

When a developer applies refactoring, he must \_\_\_\_\_ the code.

Select the correct option

 Reload Math Equations

- |                                  |         |
|----------------------------------|---------|
| <input type="radio"/>            | Recycle |
| <input checked="" type="radio"/> | Test    |
| <input type="radio"/>            | Delate  |
| <input type="radio"/>            | Remove  |

During refactoring, while a developer creating an extract method, he should update the variable name to make more readable according to the specific functionality placed in extract method.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |



While applying refactoring on a long method, the developer should repeat the extracting out and moving method processes on the other algorithmic steps available in the same method.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |

Click to Save Answer & Move to Next Question

Improved cohesion in design will return \_\_\_\_\_.

Select the correct option

 Reload Math Equations



Ease in modification



Hard to modify



Difficult to modify



Very hard to update

Question # 2 of 2

Time Left: 80 sec(s)

Once an application has developed and implemented then there is no possibility to add new requirements in the developed and running system.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | False |
| <input type="radio"/>            | True  |

Temporary variable cause problem in .....

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Short methods |
| <input type="radio"/>            | Programming   |
| <input checked="" type="radio"/> | Long methods  |
| <input type="radio"/>            | C++ language  |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 77 sec(s)

If a developer encapsulates the expression or formula in a method that holds by temporary variable, it will enhance \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                     |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | Reusability         |
| <input type="radio"/>            | Encapsulation       |
| <input type="radio"/>            | Inheritance         |
| <input type="radio"/>            | Difficult to modify |

Question # 2 of 3

Time Left: 79 sec(s)

If a temporary variable holds an expression or formula, it means temporary variable has reusable kind of information.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Question # 3 of 3

Time Left: 83 sec(s)

Temporary variable cause problem in \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Short methods |
| <input checked="" type="radio"/> | Long methods  |
| <input type="radio"/>            | Programming   |
| <input type="radio"/>            | C++ language  |

Object morphing problem may be solved by \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | Inheritance             |
| <input type="radio"/>            | Encapsulation           |
| <input type="radio"/>            | Difficult to handle     |
| <input checked="" type="radio"/> | Strategy design pattern |



Object morphing is a blessing for software developers.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | True  |
| <input checked="" type="radio"/> | False |

Click to Save Answer & Move to Next Question

Object morphing problem may be solved by \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | Difficult to handle     |
| <input checked="" type="radio"/> | Strategy design pattern |
| <input type="radio"/>            | Encapsulation           |
| <input type="radio"/>            | Inheritance             |

Click to Save Answer & Move to Next Question

An application is running smoothly, and the developer's fears make him reluctant to refactor.

Select the correct option

 Reload Math Equations

- |                                  |                                  |
|----------------------------------|----------------------------------|
| <input type="radio"/>            | Fear of not getting food         |
| <input type="radio"/>            | Fear of staying a week in office |
| <input type="radio"/>            | Fear of weight gain              |
| <input checked="" type="radio"/> | Fear of breaking current program |

Question # 2 of 3

Time Left: 59 sec(s)

Why are developers reluctant to perform refactoring?

Select the correct option

 Reload Math Equations

- |                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| <input type="radio"/>            | Social media addiction                                          |
| <input checked="" type="radio"/> | Lacking of understanding                                        |
| <input type="radio"/>            | Because application developed using monolithic architecture     |
| <input type="radio"/>            | Because application developed using micro services architecture |

One of the reasons is short term focus of developers in performing the refactoring.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

The databases works as global variables.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Click to Save Answer & Move to Next Question

Question # 2 of 3

Time Left: 75 sec(s)

The code is hard to change while making changes in the database is easy.

Select the correct option

 Reload Math Equations

☐ True

☒ False

Microsoft PowerPoint does not provide different slide views.

Select the correct option

 Reload Math Equations

True

☐

False

☒

Click to Save Answer & Move to Next Question



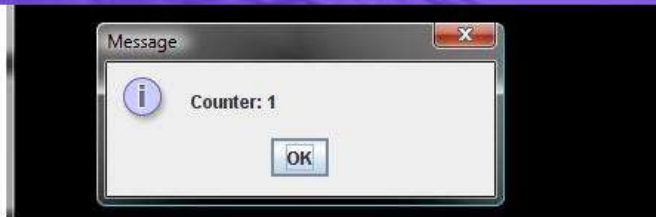
It is not different in mobile and laptop screen heights and widths. That's why a software developer does not consider device display while programming.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | True  |
| <input checked="" type="radio"/> | False |

Click to Save Answer & Move to Next Question



Which of the following suitable name of above interface?

Select the correct option

 Reload Math Equations

- |                                  |                                          |
|----------------------------------|------------------------------------------|
| <input type="radio"/>            | Console based input and output           |
| <input type="radio"/>            | GUI based input and output               |
| <input checked="" type="radio"/> | Console-based Input and GUI based Output |

```
C:\Users\Sasa2\src\comp110>java examples.mvc.ConsoleUI
Counter: 0
1
Counter: 1
-1
Counter: 0
5
Counter: 5
_
```

Which of the following suitable name of above interface?

Select the correct option

 Reload Math Equations

- |                                  |                         |
|----------------------------------|-------------------------|
| <input type="radio"/>            | Mobile interface        |
| <input checked="" type="radio"/> | Console based interface |
| <input type="radio"/>            | Laptop interface        |

### Question

```
public class MonolithicConsoleUI {  
    public static void main(String[] args) {  
        int counter = 0;  
        while (true) {  
            System.out.println("Counter: " + counter);  
            int nextInput = Console.readInt();  
            if (nextInput == 0) break;  
            counter += nextInput;  
        }  
    }  
}
```

counter variable initializes with Zero in the above code.

### Result

✓ - Correct

```
public class MonolithicConsoleUI {  
    public static void main(String[] args) {  
        int counter = 0;  
        while (true) {  
            System.out.println("Counter: " + counter);  
            int nextInput = Console.readInt();  
            if (nextInput == 0) break;  
            counter += nextInput;  
        }  
    }  
}
```

Answer

✓ - Correct

Identify the output command in the above code.

Monolithic application provides just console based user interface.

Select the correct option

 Reload Math Equations

☐

True

☒

False

In model / interactor pattern, model has \_\_\_\_\_ functionality.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Different  |
| <input type="radio"/>            | Recycled   |
| <input type="radio"/>            | Duplicated |
| <input checked="" type="radio"/> | Common     |

A situation in which an application has multiple user interfaces of the same code. It means there is duplicated code. The duplicated code problem will be handled through \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                            |
|----------------------------------|----------------------------|
| <input type="radio"/>            | Agile pattern              |
| <input checked="" type="radio"/> | Model / Interactor pattern |
| <input type="radio"/>            | Waster fall patter         |
| <input type="radio"/>            | Spiral pattern             |

Click to Save Answer & Move to Next Question



Different input and output user interfaces of an application make code .....

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Easy      |
| <input checked="" type="radio"/> | Duplicate |
| <input type="radio"/>            | Enhanced  |
| <input type="radio"/>            | Recycle   |

Question # 1 of 1

Time Left: 50 sec(s)

\_\_\_\_\_ is a major drawback in monolithic user interfaces.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Hybrid code      |
| <input type="radio"/>            | Mixed interfaces |
| <input type="radio"/>            | Simple code      |
| <input checked="" type="radio"/> | Code duplication |

MVS has \_\_\_\_\_ parts.

Select the correct option

 Reload Math Equations

|                                  |   |
|----------------------------------|---|
| <input checked="" type="radio"/> | 3 |
| <input type="radio"/>            | 2 |
| <input type="radio"/>            | 1 |
| <input type="radio"/>            | 0 |

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To remove the input and output code duplication in the example given in the video, which technique will be used?

Select the correct option

 Reload Math Equations

- |                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | MVC console View          |
| <input type="radio"/>            | MVC language              |
| <input type="radio"/>            | Waterfall MVC             |
| <input checked="" type="radio"/> | MVC architectural pattern |

Question # 6019

Time Left: 00:00:00

Fundamentally user interface has two parts:

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Input and output     |
| <input type="radio"/>            | Two output console   |
| <input type="radio"/>            | Two input console    |
| <input type="radio"/>            | It has only one part |

Click to Save Answer & Move to Next Question

User interface is combination of \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Controller and output |
| <input type="radio"/>            | Depends on IDE        |
| <input type="radio"/>            | Inputs and view       |
| <input checked="" type="radio"/> | View and controller   |

[Click to Save Answer & Move to Next Question](#)

May be there are multiple views, so the question arises how to synchronize view and controller?

Select the correct option

 Reload Math Equations

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| <input checked="" type="radio"/> | With the help of observer pattern |
| <input type="radio"/>            | With the help of Java             |
| <input type="radio"/>            | With the help of .net             |
| <input type="radio"/>            | Waterfall MVC                     |

Click to Save Answer & Move to Next Question

MVC divided the program logic into \_\_\_\_\_interconnected elements.

Select the correct option

 Reload Math Equations

- |                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | Zero  |
| <input checked="" type="radio"/> | Three |
| <input type="radio"/>            | one   |
| <input type="radio"/>            | Four  |



An architecture acts as a/an \_\_\_\_\_ between abstract business goals and the final (concrete) resulting system.

Select the correct option

☐

Tool

☐

Design

☐

Observer

☒

Bridge

The software architecture of a system is the \_\_\_\_\_ needed to reason about the system.

Select the correct option

 Reload Math Equations

|                                  |                   |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | set of structures |
| <input type="radio"/>            | instructions      |
| <input type="radio"/>            | guidelines        |
| <input type="radio"/>            | relationships     |

\_\_\_\_\_ is a set of elements held together by a relation.

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input checked="" type="radio"/> | Structure |
| <input type="radio"/>            | Software  |
| <input type="radio"/>            | CPU       |
| <input type="radio"/>            | Compiler  |

\_\_\_\_\_ is about making fundamental structural choices.

Select the correct option

 Reload Math Equations

- |                                  |                                     |
|----------------------------------|-------------------------------------|
| <input type="radio"/>            | Software Requirements Specification |
| <input checked="" type="radio"/> | Software Architecture               |
| <input type="radio"/>            | Software Validation                 |
| <input type="radio"/>            | Software Testing                    |

Software systems are composed of \_\_\_\_\_ structures.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Infinite |
| <input checked="" type="radio"/> | Many     |
| <input type="radio"/>            | Single   |
| <input type="radio"/>            | Zero     |

Most of the times in Agile or spiral-development projects, the architectural decisions are made at the \_\_\_\_\_ stages.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Early            |
| <input checked="" type="radio"/> | Later            |
| <input type="radio"/>            | Advanced         |
| <input type="radio"/>            | Initial/Starting |

Click to Save Answer & Move to Next Question

In an architectural design, the allocation structures are also known as \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                          |
|----------------------------------|------------------------------------------|
| <input type="radio"/>            | Component-and-Connector (C&C) structures |
| <input checked="" type="radio"/> | Deployment structures                    |
| <input type="radio"/>            | Dynamic structures                       |
| <input type="radio"/>            | Static structures                        |

In Component-and-Connector (C&C) structures, the components are \_\_\_\_\_ entities.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Deployment |
| <input checked="" type="radio"/> | Run-time   |
| <input type="radio"/>            | Internal   |
| <input type="radio"/>            | Static     |



In an architectural design, the allocation structures are also known as \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                          |
|----------------------------------|------------------------------------------|
| <input type="radio"/>            | Dynamic structures                       |
| <input type="radio"/>            | Component-and-Connector (C&C) structures |
| <input type="radio"/>            | Static structures                        |
| <input checked="" type="radio"/> | Deployment structures                    |

[Click Here to Reload Math Equations](#)

We have \_\_\_\_\_ broader categories of structures in Architectural design.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Five     |
| <input checked="" type="radio"/> | Three    |
| <input type="radio"/>            | Infinite |
| <input type="radio"/>            | Ten      |

\_\_\_\_\_components are runtime entities / executables.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Dynamic structures    |
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Static structures     |

Click to Save Answer & Move to Next Question

Question # 1019

Time Left: 04 sec(s)

In layered structure, modules are aggregated (organized) into \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |        |
|----------------------------------|--------|
| <input type="radio"/>            | Blocks |
| <input type="radio"/>            | Cubes  |
| <input type="radio"/>            | Parts  |
| <input checked="" type="radio"/> | Layers |

Question # 2 of 3

Time Left: 00 sec(s)

\_\_\_\_\_ focus on module decomposition in larger projects.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Dynamic structures    |
| <input checked="" type="radio"/> | Static structures     |

Class diagram is an example of \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Deployment structures |
| <input checked="" type="radio"/> | Static structures     |
| <input type="radio"/>            | Dynamic structures    |

Many of the software quality attributes are the \_\_\_\_\_requirements.

Select the correct option

 Reload Math Equations

- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | functional     |
| <input checked="" type="radio"/> | non-functional |

Click to Save Answer & Move to Next Question

A structure is \_\_\_\_\_ if it supports reasoning about the system and its properties.

Select the correct option

 Reload Math Equations

☒

architectural

☐

developmental

☐

responsive

☐

computational



The set of architectural structures is \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                   |
|----------------------------------|-------------------|
| <input type="radio"/>            | fixed             |
| <input type="radio"/>            | limited           |
| <input type="radio"/>            | fixed and limited |
| <input checked="" type="radio"/> | not fixed         |

Click to Save Answer & Move to Next Question

The architecture specifically \_\_\_\_\_ certain information about elements that is not useful for reasoning about the system.

**Select the correct option**

☐

Approve

☒

Omits

☐

Keeps

☐

Add

Architectural abstraction is essential to \_\_\_\_\_ the complexity of the system.

Select the correct option

 Reload Math Equations



decrease



detect



increase



reject

An architecture is a/an \_\_\_\_\_ of a system that selects certain details and omits certain information that is not useful for reasoning about the system.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | abstraction  |
| <input type="radio"/>            | illustration |
| <input type="radio"/>            | introduction |
| <input type="radio"/>            | description  |

Software Architecture is concerned with the \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                 |
|----------------------------------|---------------------------------|
| <input checked="" type="radio"/> | public interface                |
| <input type="radio"/>            | internal implementation details |
| <input type="radio"/>            | Objects and Classes             |
| <input type="radio"/>            | private details                 |

Even though every system has an architecture, it does not necessarily follow that the architecture is known to \_\_\_\_\_

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Programmer    |
| <input checked="" type="radio"/> | Anyone        |
| <input type="radio"/>            | Network Admin |
| <input type="radio"/>            | System Admin  |

Every system includes ..... among them to support some type of reasoning.

Select the correct option

 Reload Math Equations

|                                  |                        |
|----------------------------------|------------------------|
| <input checked="" type="radio"/> | Elements and Relations |
| <input type="radio"/>            | Classes                |
| <input type="radio"/>            | Relations              |
| <input type="radio"/>            | Elements               |

Although every system has an architecture, it is \_\_\_\_\_ that the architecture is documented.

Select the correct option

 Reload Math Equations

- |                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | necessary     |
| <input checked="" type="radio"/> | not necessary |



System Architecture is concerned with the total system including \_\_\_\_\_

Select the correct option

 Reload Math Equations

- |                                  |                                |
|----------------------------------|--------------------------------|
| <input type="radio"/>            | hardware and software          |
| <input type="radio"/>            | hardware                       |
| <input checked="" type="radio"/> | hardware, software, and humans |
| <input type="radio"/>            | software                       |

All types of architectures can be \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                    |
|----------------------------------|------------------------------------|
| <input type="radio"/>            | designed and documented            |
| <input type="radio"/>            | evaluated                          |
| <input type="radio"/>            | designed                           |
| <input checked="" type="radio"/> | designed, evaluated and documented |

\_\_\_\_\_ is concerned with a total system, including hardware, software, and humans.

Select the correct option

 Reload Math Equations

|                                  |                         |         |
|----------------------------------|-------------------------|---------|
| <input checked="" type="radio"/> | System architecture     | Correct |
| <input type="radio"/>            | Enterprise architecture |         |
| <input type="radio"/>            | Hardware architecture   |         |
| <input type="radio"/>            | Software architecture   |         |

Modern systems are usually too \_\_\_\_\_ to grasp all at once.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | Easy     |
| <input checked="" type="radio"/> | Complex  |
| <input type="radio"/>            | Neutral  |
| <input type="radio"/>            | Flexible |

A/an \_\_\_\_\_ is a representation of a structure.

Select the correct option

 Reload Math Equations

|                                  |          |
|----------------------------------|----------|
| <input checked="" type="radio"/> | View     |
| <input type="radio"/>            | element  |
| <input type="radio"/>            | software |
| <input type="radio"/>            | design   |

A /an \_\_\_\_\_ consists of a representation of a set of elements and the relations among them.

Select the correct option

 Reload Math Equations

- |                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | design   |
| <input type="radio"/>            | object   |
| <input checked="" type="radio"/> | view     |
| <input type="radio"/>            | software |

Which of the following statements is not true about software architectures?

Select the correct option

 Reload Math Equations

- |                                  |                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------|
| <input type="radio"/>            | They consist of structures, which in turn consist of elements and relationships |
| <input type="radio"/>            | They answer to requirements                                                     |
| <input checked="" type="radio"/> | They all have the same vocabulary and techniques                                |
| <input type="radio"/>            | They are intended to satisfy stakeholders                                       |

Click on the correct answer

4+1 View Model of Software Architecture was proposed by \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                   |
|----------------------------------|-------------------|
| <input type="radio"/>            | Grady Booch       |
| <input checked="" type="radio"/> | Philippe Kruchten |
| <input type="radio"/>            | Roger Pressman    |
| <input type="radio"/>            | Ian Sommerville   |



\_\_\_\_\_ represents the perspective of the System Engineer.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Physical view    |
| <input type="radio"/>            | Development view |
| <input type="radio"/>            | Logical view     |
| <input type="radio"/>            | Process view     |

Question # 3013

Time Left: 00:00:07

\_\_\_\_\_ represents the perspective of the Programmers and Software Managers.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Process view     |
| <input type="radio"/>            | Logical view     |
| <input checked="" type="radio"/> | Development view |
| <input type="radio"/>            | Physical view    |

[Click to Save Answer & Move to Next Question](#)

\_\_\_\_\_ represents the perspective of the End-user.

Select the correct option

 Reload Math Equations

- |                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Process view     |
| <input checked="" type="radio"/> | Logical view     |
| <input type="radio"/>            | Development view |
| <input type="radio"/>            | Physical view    |

Question # 2 of 3

Time Left: 83 sec(s)

\_\_\_\_\_ represents the perspective of the Integrator.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Physical view    |
| <input type="radio"/>            | Logical view     |
| <input type="radio"/>            | Development view |
| <input checked="" type="radio"/> | Process view     |

In any \_\_\_\_\_, the elements are modules of some kind.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Module structure     |
| <input type="radio"/>            | Deployment structure |
| <input type="radio"/>            | Allocation structure |
| <input type="radio"/>            | Dynamic structure    |

Static Structures are also known as \_\_\_\_\_.

**Select the correct option**



Module Structure



Dynamic Structure



Development Structure

\_\_\_\_\_ are assigned areas of functional responsibility.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Module                |
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Dynamic structures    |

----- represent a static way of considering the system.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Modules               |
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Dynamic structures    |
| <input type="radio"/>            | Allocation structures |



In Dynamic structures, \_\_\_\_\_ are the communication vehicles among components.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | clients    |
| <input type="radio"/>            | server     |
| <input type="radio"/>            | modules    |
| <input checked="" type="radio"/> | connectors |

----- are also called Component & Connector Structures.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Static structures     |
| <input checked="" type="radio"/> | Dynamic structures    |

\_\_\_\_\_ are assigned areas of functional responsibility.

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Deployment structures |
| <input type="radio"/>            | Allocation structures |
| <input type="radio"/>            | Dynamic structures    |
| <input checked="" type="radio"/> | Module                |

\_\_\_\_\_ represent a static way of considering the system.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Deployment structures |
| <input checked="" type="radio"/> | Modules               |
| <input type="radio"/>            | Dynamic structures    |
| <input type="radio"/>            | Allocation structures |

----- structures are very useful for Project management.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | C&C        |
| <input type="radio"/>            | Static     |
| <input checked="" type="radio"/> | Allocation |
| <input type="radio"/>            | Dynamic    |

\_\_\_\_\_ structures are very useful for Configuration management.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Allocation |
| <input type="radio"/>            | Dynamic    |
| <input type="radio"/>            | Static     |
| <input type="radio"/>            | C&C        |

 Reload Math Equations

The \_\_\_\_\_ structure, which embodies parallelism within the system, is strongly tied to the ease with which a system can be made free of deadlock and performance bottlenecks.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | efficiency   |
| <input type="radio"/>            | availability |
| <input type="radio"/>            | security     |
| <input checked="" type="radio"/> | concurrency  |

Reload Math Equations

The \_\_\_\_\_ structure is strongly tied to the achievement of performance, availability, and security goals.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | deployment |
| <input type="radio"/>            | C&C        |
| <input type="radio"/>            | dynamic    |
| <input type="radio"/>            | static     |



\_\_\_\_\_ structures provide a perspective for reasoning about some of the relevant quality attributes.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Dynamic     |
| <input checked="" type="radio"/> | All type of |
| <input type="radio"/>            | Allocation  |
| <input type="radio"/>            | Static      |

Click to Save Answer & Move to Next Question

In Dynamic structures, \_\_\_\_\_ are the communication vehicles among components.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | clients    |
| <input type="radio"/>            | server     |
| <input type="radio"/>            | modules    |
| <input checked="" type="radio"/> | connectors |

In general, mappings between structures are \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | many-to-one  |
| <input checked="" type="radio"/> | many to many |
| <input type="radio"/>            | one-to-many  |
| <input type="radio"/>            | one-to-one   |

Click to Save Answer & Move to Next Question

Although the structures give different system perspectives, they are not\_\_\_\_\_.

**Select the correct option**

|                                  |             |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | Independent |
| <input type="radio"/>            | Dependent   |
| <input type="radio"/>            | Conditional |
| <input type="radio"/>            | Reliant on  |

In general, for smaller systems, we prefer \_\_\_\_\_ structure(s).

Select the correct option

 Reload Math Equations

- |                                  |          |
|----------------------------------|----------|
| <input type="radio"/>            | many     |
| <input type="radio"/>            | one      |
| <input type="radio"/>            | too many |
| <input checked="" type="radio"/> | fewer    |

The \_\_\_\_\_ the system, the more dramatic the difference between these structures tends to be.

Select the correct option

 Reload Math Equations

|                                  |         |
|----------------------------------|---------|
| <input type="radio"/>            | Smaller |
| <input checked="" type="radio"/> | Larger  |
| <input type="radio"/>            | Lower   |
| <input type="radio"/>            | Petite  |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ patterns specializes the generic deployment (software-to-hardware allocation) structure.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Allocation |
| <input type="radio"/>            | Module     |
| <input type="radio"/>            | Layered    |
| <input type="radio"/>            | C&C type   |

Shared Data (or repository) Pattern is an example of \_\_\_\_\_ Patterns.

Select the correct option

 Reload Math Equations

|                                  |            |
|----------------------------------|------------|
| <input type="radio"/>            | Allocation |
| <input type="radio"/>            | Layered    |
| <input type="radio"/>            | Module     |
| <input checked="" type="radio"/> | C&C type   |



Question # 6 of 6

Time Left: 00:00:00

Layered pattern is an example of \_\_\_\_\_ patterns.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Module        |
| <input type="radio"/>            | Allocation    |
| <input type="radio"/>            | C&C type      |
| <input type="radio"/>            | Client-Server |

A three-tier layered service-oriented architecture may be the right thing for a \_\_\_\_\_enterprise's web-based B2B system but completely wrong for an avionics application.

Select the correct option

 Reload Math Equations

|                                  |        |
|----------------------------------|--------|
| <input checked="" type="radio"/> | Large  |
| <input type="radio"/>            | Medium |
| <input type="radio"/>            | Small  |
| <input type="radio"/>            | Micro  |

Click to Save Answer & Move to Next Question

Product recommendations is also called \_\_\_\_\_ recommendations.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Client-Server |
| <input type="radio"/>            | Design        |
| <input checked="" type="radio"/> | Structural    |
| <input type="radio"/>            | Process       |

"The architecture should be the product of a single architect or a small group of architects with an identified technical leader". This recommendation holds for \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| <input checked="" type="radio"/> | Agile, Open Source as well as traditional projects |
| <input type="radio"/>            | Agile projects only                                |
| <input type="radio"/>            | Agile and Open Source projects only                |
| <input type="radio"/>            | Traditional projects only                          |

Under Process Recommendations, the architecture should lend itself to \_\_\_\_\_ implementation.

Select the correct option

 Reload Math Equations

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Linear      |
| <input checked="" type="radio"/> | Incremental |
| <input type="radio"/>            | Partial     |
| <input type="radio"/>            | Runtime     |

Under Process Recommendations, the architecture should be documented using\_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Forms           |
| <input type="radio"/>            | Word processing |
| <input checked="" type="radio"/> | Views           |
| <input type="radio"/>            | Spreadsheets    |

There should be a strong connection between the architect(s) and the development team, to avoid ivory tower designs that are -----.

Select the correct option

 Reload Math Equations

|                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Robust      |
| <input checked="" type="radio"/> | Impractical |
| <input type="radio"/>            | Secure      |
| <input type="radio"/>            | Efficient   |

The information-hiding modules should \_\_\_\_\_ things likely to change, thus insulating the software from the effects of those changes.

Select the correct option

 Reload Math Equations

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Unwrap      |
| <input type="radio"/>            | Open        |
| <input type="radio"/>            | Release     |
| <input checked="" type="radio"/> | Encapsulate |



Question # 3 of 3

Time Left: 83 sec(s)

In the context of Product Recommendations, Do not expect a \_\_\_\_\_ correspondence between modules and components.

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | many-to-many |
| <input type="radio"/>            | many-to-one  |
| <input checked="" type="radio"/> | one-to-one   |
| <input type="radio"/>            | one-to-many  |

The architecture should feature well-defined modules whose functional responsibilities are assigned on the principles of information hiding and

-----

Select the correct option

 Reload Math Equations

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | integration            |
| <input type="radio"/>            | hardware               |
| <input checked="" type="radio"/> | separation of concerns |
| <input type="radio"/>            | software               |

Click to Save Answer & Move to Next Question

The software architecture of a system Comprises of \_\_\_\_\_ , relations among them and the Properties of both.

**Select the correct option**

|                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Software tools      |
| <input checked="" type="radio"/> | Software elements   |
| <input type="radio"/>            | Software structures |
| <input type="radio"/>            | Observers           |

Architectural drivers are inputs into the \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                                   |
|----------------------------------|-----------------------------------|
| <input checked="" type="radio"/> | Design process                    |
| <input type="radio"/>            | Verification & Validation process |
| <input type="radio"/>            | Testing phase                     |
| <input type="radio"/>            | Coding phase                      |

[Click to Go to Previous Question](#) [Click to Go to Next Question](#)

Question # 2 of 3

Time Left: 83 sec(s)

The \_\_\_\_\_ satisfies Architectural drivers.

Select the correct option

 Reload Math Equations

☐

System specifications

☐

Software requirements

☐

Coding

☒

Software architecture design

The Architectural drivers \_\_\_\_\_ the design of the software architecture.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Validate        |
| <input checked="" type="radio"/> | Drive and guide |
| <input type="radio"/>            | Test            |
| <input type="radio"/>            | Verify          |

\_\_\_\_\_ are the considerations that need to be made for the software system that are architecturally significant.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Design patterns       |
| <input checked="" type="radio"/> | Architectural Drivers |
| <input type="radio"/>            | Code smells           |
| <input type="radio"/>            | Data Structures       |

Click to Save Answer & Move to Next Question

Question # 5 of 5

Time Left: 80 sec(s)

-----describe what you are doing and why you are doing it.

Select the correct option

 Reload Math Equations

|                                  |                       |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Architectural Drivers |
| <input type="radio"/>            | Code smells           |
| <input type="radio"/>            | Testing techniques    |
| <input type="radio"/>            | Pointers              |



Which of the following does not come under the class of Architectural styles:

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Client-Server   |
| <input type="radio"/>            | Component-based |
| <input checked="" type="radio"/> | Web Application |
| <input type="radio"/>            | N-Tier          |

Which of the following cannot be considered as a Quality attribute:

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Caching         |
| <input type="radio"/>            | Security        |
| <input type="radio"/>            | Reusability     |
| <input type="radio"/>            | Maintainability |

Which of the following is not an Application Type:

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Rich Client  |
| <input type="radio"/>            | Web based    |
| <input checked="" type="radio"/> | N-Tier       |
| <input type="radio"/>            | Mobile based |

Quality attributes cannot be considered as:

Select the correct option

 Reload Math Equations

- |                                  |                             |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | functional requirements     |
| <input type="radio"/>            | service-level agreements    |
| <input type="radio"/>            | cross-cutting concerns      |
| <input type="radio"/>            | non-functional requirements |

Question # 3 of 3

Time Left: 84 sec(s)

\_\_\_\_\_ is a measure of the "goodness" of a product along some dimension of interest to its stakeholders.

Select the correct option

 Reload Math Equations

|                                  |                        |         |
|----------------------------------|------------------------|---------|
| <input type="radio"/>            | Functional requirement |         |
| <input type="radio"/>            | System specification   |         |
| <input checked="" type="radio"/> | Quality attribute      | Correct |
| <input type="radio"/>            | Software Maintenance   |         |

Question # 3 of 3

Time Left: 00 sec(s)

\_\_\_\_\_ is a testable / measurable property of a system that indicates how well the system satisfies the needs of its stakeholders.

Select the correct option

 Reload Math Equations

|                                  |                        |         |
|----------------------------------|------------------------|---------|
| <input type="radio"/>            | Functional requirement |         |
| <input checked="" type="radio"/> | Quality attribute      | Correct |
| <input type="radio"/>            | Software Maintenance   |         |
| <input type="radio"/>            | System specification   |         |

Which of the following is not considered as a Quality attribute?

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Performance     |
| <input type="radio"/>            | Maintainability |
| <input checked="" type="radio"/> | Transactions    |
| <input type="radio"/>            | Portability     |

Which of the following cannot be considered as a Quality attribute:

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Security        |
| <input type="radio"/>            | Maintainability |
| <input checked="" type="radio"/> | Caching         |
| <input type="radio"/>            | Reusability     |



While developing a software for the Apple Mobile OS, which of the following quality attribute will be given least priority:

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Usability        |
| <input type="radio"/>            | Security         |
| <input checked="" type="radio"/> | Interoperability |
| <input type="radio"/>            | Performance      |

We need to understand how to \_\_\_\_\_ Software Quality attributes.

Select the correct option

 Reload Math Equations

- |                                  |                               |
|----------------------------------|-------------------------------|
| <input type="radio"/>            | Refine                        |
| <input checked="" type="radio"/> | Capture, refine and challenge |
| <input type="radio"/>            | Capture                       |
| <input type="radio"/>            | Capture and refine            |

Quality attributes have tradeoffs between them.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

\_\_\_\_\_ defines the capability for components and subsystems to be suitable for use in other applications and in other scenarios.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Manageability   |
| <input type="radio"/>            | Maintainability |
| <input type="radio"/>            | Reliability     |
| <input checked="" type="radio"/> | Reusability     |

\_\_\_\_\_defines the proportion of time that the system is functional and working.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Usability     |
| <input checked="" type="radio"/> | Availability  |
| <input type="radio"/>            | Reliability   |
| <input type="radio"/>            | Manageability |

\_\_\_\_\_ defines how well the system meets the requirements of the different type of users for good user experience.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Maintainability |
| <input type="radio"/>            | Reliability     |
| <input type="radio"/>            | Availability    |
| <input checked="" type="radio"/> | Usability       |

\_\_\_\_\_ is the ability of a system to remain operational over time (the probability that a system will not fail to perform its functionality over a specified interval of time).

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Usability     |
| <input type="radio"/>            | Manageability |
| <input checked="" type="radio"/> | Reliability   |
| <input type="radio"/>            | Availability  |

Which of the following is not an Application Type:

Select the correct option

 Reload Math Equations

|                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Web based    |
| <input checked="" type="radio"/> | N-Tier       |
| <input type="radio"/>            | Rich Client  |
| <input type="radio"/>            | Mobile based |



Question # 6919

Time Left: 00:00:00

Constraints can sometimes be \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |             |         |
|----------------------------------|-------------|---------|
| <input checked="" type="radio"/> | prioritized | Correct |
| <input type="radio"/>            | rejected    |         |
| <input type="radio"/>            | accepted    |         |
| <input type="radio"/>            | ignored     |         |

Click to Save Answer & Move to Next Question

\_\_\_\_\_ are designed to support communication between loosely coupled components.

Select the correct option

 Reload Math Equations

|                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | Rich Internet application |
| <input type="radio"/>            | Web application           |
| <input type="radio"/>            | Rich client application   |
| <input checked="" type="radio"/> | Service application       |

Which of the following application types is probably the best choice if you want to support data entry with forms in an occasionally connected scenario ?

Select the correct option

 Reload Math Equations

|                                  |                           |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Rich client application   |
| <input type="radio"/>            | Rich Internet application |
| <input type="radio"/>            | Web application           |
| <input type="radio"/>            | Service application       |

[Click to go to previous Math 101 Question](#)

Our choice of an appropriate application type usually depends on the \_\_\_\_\_:

Select the correct option

 Reload Math Equations

- |                                  |                                              |
|----------------------------------|----------------------------------------------|
| <input type="radio"/>            | Constraints                                  |
| <input checked="" type="radio"/> | User requirements, scenarios and constraints |
| <input type="radio"/>            | User requirements                            |
| <input type="radio"/>            | Scenarios and constraints                    |

Click to Save Answer & Move to Next Question

Every application design must take into account the following quality attributes:

Select the correct option

 Reload Math Equations

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| <input type="radio"/>            | Performance and maintainability only       |
| <input type="radio"/>            | Security and performance only              |
| <input checked="" type="radio"/> | Security, performance, and maintainability |
| <input type="radio"/>            | Security and maintainability only          |

\_\_\_\_\_ can support multiple platforms and browsers, and uses the processing and storage resources of the server.

Select the correct option

 Reload Math Equations

|                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Desktop application |
| <input type="radio"/>            | Service application |
| <input checked="" type="radio"/> | Web application     |
| <input type="radio"/>            | Mobile application  |

Which of the following application types is probably the best choice if you want to support rich media and graphics delivered over the Internet ?

Select the correct option

 Reload Math Equations

|                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | Service application       |
| <input checked="" type="radio"/> | Rich Internet application |
| <input type="radio"/>            | Web application           |
| <input type="radio"/>            | Rich client application   |

[Click to go to previous question](#) [Click to go to next question](#)

Question # 1 of 3

Time Left: 65 sec(s)

It can be used to add an interface to existing system to hide its complexities.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Facade Pattern  |
| <input type="radio"/>            | Proxy pattern   |
| <input type="radio"/>            | Visitor pattern |
| <input type="radio"/>            | Builder pattern |



\_\_\_\_\_ can change from one state to another state in response to some inputs.

Select the correct option

 Reload Math Equations

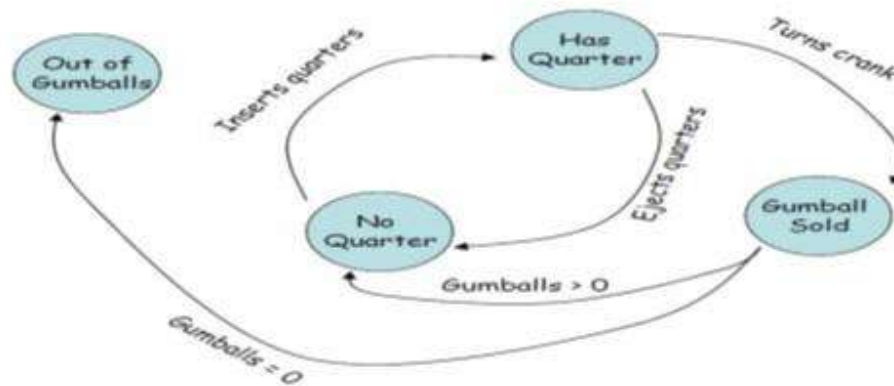
- |                                  |                   |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | State machine     |
| <input type="radio"/>            | State pattern     |
| <input type="radio"/>            | Singleton pattern |
| <input type="radio"/>            | Input machine     |

IoT is the abbreviation for \_\_\_\_\_.

Select the correct option

[Reload Math Equations](#)

- |                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Internet far things |
| <input type="radio"/>            | Things for internet |
| <input checked="" type="radio"/> | Internet of things  |
| <input type="radio"/>            | Issues of internet  |



Above state diagram has Four states.

Question # 3 of 3

Time Left: 77 sec(s)

It can be used to add an interface to existing system to hide its complexities.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Builder pattern |
| <input type="radio"/>            | Visitor pattern |
| <input type="radio"/>            | Proxy pattern   |
| <input checked="" type="radio"/> | Façade Pattern  |

Façade is a \_\_\_\_\_

Select the correct option

 Reload Math Equations

|                                  |                              |
|----------------------------------|------------------------------|
| <input type="radio"/>            | Deceptive rooftop appearance |
| <input type="radio"/>            | Foundation appearance        |
| <input type="radio"/>            | Hidden appearance            |
| <input checked="" type="radio"/> | Deceptive outward appearance |

It can be used to add an interface to existing system to hide its complexities.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Facade Pattern  |
| <input type="radio"/>            | Proxy pattern   |
| <input type="radio"/>            | Builder pattern |
| <input type="radio"/>            | Visitor pattern |

An object alters its behavior in response to internal state changes.

Select the correct option

 Reload Math Equations

- |                                  |                              |
|----------------------------------|------------------------------|
| <input type="radio"/>            | Input machine motivation     |
| <input type="radio"/>            | State loop motivation        |
| <input checked="" type="radio"/> | State pattern motivation     |
| <input type="radio"/>            | Singleton pattern motivation |

Click to Save Answer & Move to Next Question

In state design pattern, Whenever the request() is made on the context it is delegated to \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Double handle() |
| <input type="radio"/>            | Object handle() |
| <input checked="" type="radio"/> | State handle()  |
| <input type="radio"/>            | Fixed handle()  |

In state design pattern the context is the \_\_\_\_\_ that can have a number of internal states.

Select the correct option

 Reload Math Equations

|                                  |                          |
|----------------------------------|--------------------------|
| <input checked="" type="radio"/> | Class                    |
| <input type="radio"/>            | Switch statement         |
| <input type="radio"/>            | Methods                  |
| <input type="radio"/>            | Internet of things (IoT) |



In state pattern, each state is represented by a \_\_\_\_\_.

Select the correct option

 Reload Math Equations

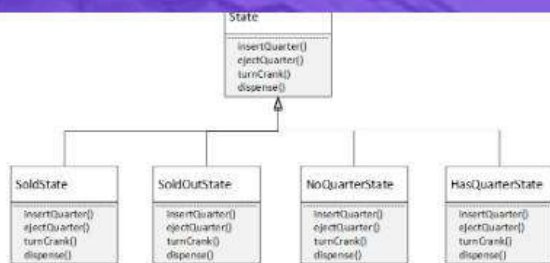
- |                                  |                         |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | Concrete state class    |
| <input type="radio"/>            | Method concrete class   |
| <input type="radio"/>            | Abstract concrete class |
| <input type="radio"/>            | Object concrete class   |

In gumball machine, implement a state class for \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                            |
|----------------------------------|----------------------------|
| <input type="radio"/>            | Two states of the machine  |
| <input type="radio"/>            | One state of the machine   |
| <input type="radio"/>            | Zero state of the machine  |
| <input checked="" type="radio"/> | Every state of the machine |



There are \_\_\_\_\_ concrete classes in above class diagram.

Select the correct option

[Reload Math Equations](#)

- |                                  |        |
|----------------------------------|--------|
| <input type="radio"/>            | Five   |
| <input checked="" type="radio"/> | Four   |
| <input type="radio"/>            | Twenty |

In gumball machine, \_\_\_\_\_ will be responsible for the behavior of the machine when it is in the corresponding state.

Select the correct option

 Reload Math Equations

|                                  |                          |
|----------------------------------|--------------------------|
| <input type="radio"/>            | State methods            |
| <input checked="" type="radio"/> | State Class              |
| <input type="radio"/>            | Internet of things (IoT) |
| <input type="radio"/>            | State virtual machine    |

It is alternate to put lots of conditional statements in the context.

Select the correct option

 Reload Math Equations

|                                  |                   |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | State pattern     |
| <input type="radio"/>            | Leveling pattern  |
| <input type="radio"/>            | Strategy pattern  |
| <input type="radio"/>            | Singleton pattern |

With strategy design pattern you can change the behavior by associating it with different objects.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

With strategy design pattern you can change the behavior by associating it with different objects.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Another name of composite design pattern is \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                           |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | General hierarchy pattern |
| <input type="radio"/>            | Suitable pattern          |
| <input type="radio"/>            | Singleton pattern         |
| <input type="radio"/>            | Composite design pattern  |



Problems that are handled with composite design patterns can also be handled with tree data structures.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | True  |
| <input checked="" type="radio"/> | False |

Which of the following design pattern defines "one to many" dependency between objects? If one object changes its state, all its dependents are notified and updated automatically.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | Facade           |
| <input type="radio"/>            | Abstract factory |
| <input checked="" type="radio"/> | Observer         |
| <input type="radio"/>            | Prototype        |

Question # 1 of 3

Time Left: 83 sec(s)

Data is available in rows and columns in an excel sheet. You create a bar graph of available data. So, when you change in any row of data, this change will also be made in the bar graph automatically.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Click to Save Answer & Move to Next Question

----- pattern is playing an important role in creating bars and charts functionality in Microsoft Excel.

Select the correct option

 Reload Math Equations

|                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Facade    |
| <input checked="" type="radio"/> | Observer  |
| <input type="radio"/>            | Composite |
| <input type="radio"/>            | Singleton |

Another name of composite design pattern is \_\_\_\_\_

Select the correct option

 Reload Math Equations

- |                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | Singleton pattern         |
| <input checked="" type="radio"/> | General hierarchy pattern |
| <input type="radio"/>            | Composite design pattern  |
| <input type="radio"/>            | Suitable pattern          |

Changing a running application to decrease the coupling and minimize the design issues etc. But the external behavior of the application will not change.

Select the correct option

 Reload Math Equations

|                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Abstract factoring  |
| <input type="radio"/>            | Prototype factoring |
| <input type="radio"/>            | Façade factoring    |
| <input checked="" type="radio"/> | Refactoring         |

Improving the design after it has been written.

Select the correct option

 Reload Math Equations

|                                  |                |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | Refactoring    |
| <input type="radio"/>            | Re-joining     |
| <input type="radio"/>            | Reapplication  |
| <input type="radio"/>            | Re-prototyping |

Refactoring is nothing but good \_\_\_\_\_.

Select the correct option

 Reload Math Equations

☐ Singleton practices

☐ Conditional practices

☒ Design practices

☐ Pattern practices



Refactoring is nothing but good \_\_\_\_\_

Select the correct option

 Reload Math Equations

- |                                  |                       |
|----------------------------------|-----------------------|
| <input type="radio"/>            | Pattern practices     |
| <input type="radio"/>            | Conditional practices |
| <input type="radio"/>            | Singleton practices   |
| <input checked="" type="radio"/> | Design practices      |

Click to Save Answer & Move to Next Question

Improving the design after it has been written.

Select the correct option

 Reload Math Equations

- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | Re-prototyping |
| <input checked="" type="radio"/> | Refactoring    |
| <input type="radio"/>            | Reapplication  |
| <input type="radio"/>            | Re-joining     |

Click to Save Answer & Move to Next Question

In modern technology, refactoring is a fundamental technique in the development of software.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Slide 8 of 10 - Math & Math Equations

Changing a running application to decrease the coupling and minimize the design issues etc. But the external behavior of the application will not change.

Select the correct option

 Reload Math Equations

|                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Abstract factoring  |
| <input type="radio"/>            | Prototype factoring |
| <input type="radio"/>            | Façade factoring    |
| <input checked="" type="radio"/> | Refactoring         |

Refactoring is applied to change the \_\_\_\_\_ of the application.

Select the correct option

 Reload Math Equations

- |                                  |                    |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | Internal structure |
| <input type="radio"/>            | External structure |
| <input type="radio"/>            | Foreign structure  |
| <input type="radio"/>            | Outer structure    |

Click to Save Answer & Move to Next Question

```
if (isSpecialDeal()) {
```

```
    total = price * 0.95;
```

```
    send ();
```

```
}
```

```
else {
```

```
    total = price * 0.98;
```

```
    send ();
```

```
}
```

How above code can be little better (refactor)?

**Select the correct option**

 Reload Math Equations



Common method will be taken out from the if-else brackets

```
if (isSpecialDeal()) {  
    total = price * 0.95;  
    send ();  
}  
else {  
    total = price * 0.98;  
    send ();  
}
```

Answer

Which method is repeating in above if-else conditions?

Code is very much bugged and unable to run. What will you do?

Select the correct option

 Reload Math Equations

- |                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Go to manual system |
| <input type="radio"/>            | Refactor            |
| <input checked="" type="radio"/> | Rewrite             |
| <input type="radio"/>            | Destroy all code    |

During the development or refactoring the system. What will be the important focus?

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Optimization    |
| <input checked="" type="radio"/> | Maintainability |
| <input type="radio"/>            | Office expenses |
| <input type="radio"/>            | Building rent   |

Click to Save Answer & Move to Next Question



Code is very much bugged and unable to run. What will you do?

Select the correct option

 Reload Math Equations

- |                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Destroy all code    |
| <input checked="" type="radio"/> | Rewrite             |
| <input type="radio"/>            | Refactor            |
| <input type="radio"/>            | Go to manual system |

Click to Save Answer & Move to Next Question

In real time applications, \_\_\_\_\_ is very critical criteria to accept the system.

Select the correct option

 Reload Math Equations

- |                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Legacy systems     |
| <input checked="" type="radio"/> | Performance        |
| <input type="radio"/>            | Office environment |
| <input type="radio"/>            | User interface     |

To make refactoring safe, you should use \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Environment patterns |
| <input type="radio"/>            | Legacy pattern       |
| <input checked="" type="radio"/> | Refactoring pattern  |
| <input type="radio"/>            | Interface pattern    |

The fundamental principle of refactoring that make it safe is \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Stop testing       |
| <input checked="" type="radio"/> | Constantly testing |
| <input type="radio"/>            | No testing         |
| <input type="radio"/>            | Abandon testing    |

Refactoring is a/an \_\_\_\_\_ task.

Select the correct option

 Reload Math Equations

|                                  |               |
|----------------------------------|---------------|
| <input type="radio"/>            | Insignificant |
| <input checked="" type="radio"/> | Critical      |
| <input type="radio"/>            | Easy          |
| <input type="radio"/>            | Wasteful      |

Bad smells term coined from the below quote \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                |
|----------------------------------|--------------------------------|
| <input checked="" type="radio"/> | If its skinks, change it.      |
| <input type="radio"/>            | If it stinks, do not change it |
| <input type="radio"/>            | If it stinks, do nothing       |
| <input type="radio"/>            | If it not stinks, change it    |

Click to Save Answer & Move to Next Question

Bad smells term coined from the below quote .....

Select the correct option

 Reload Math Equations



If its skinks, change it.



If it stinks, do not change it



If it stinks, do nothing



If it not stinks, change it

Question # 1 of 3

Time Left: 83 sec(s)

Refactoring an application, there is need of training, experience and tools.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |



Question # 2 of 3

Time Left: 85 sec(s)

A good designer may notice bad designs easily.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |

----- accumulate over time as the program grows.

Select the correct option

 Reload Math Equations

|                                  |                            |
|----------------------------------|----------------------------|
| <input type="radio"/>            | Object orientation abusers |
| <input type="radio"/>            | Maintainability            |
| <input checked="" type="radio"/> | Bloaters                   |
| <input type="radio"/>            | Stinkers                   |

----- are code, classes and methods that get bigger to such enormous proportions that they are tough to work with.

Select the correct option

 Reload Math Equations

|                                  |                   |
|----------------------------------|-------------------|
| <input type="radio"/>            | Couplers          |
| <input type="radio"/>            | Realtors          |
| <input checked="" type="radio"/> | Bloaters          |
| <input type="radio"/>            | Change preventers |

[Click here to Reload Math Equations](#)

Bloaters are keep increasing with the passage of time if nobody makes an effort to eradicate them.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |

Which of the following is not object orientation abusers?

Select the correct option

 Reload Math Equations

|                                  |                    |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | Bad method request |
| <input type="radio"/>            | Switch statement   |
| <input type="radio"/>            | Refused bequest    |
| <input type="radio"/>            | Temporary field    |

In object orientation, switch statement can be replaced by use of \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Friend function |
| <input checked="" type="radio"/> | Polymorphism    |
| <input type="radio"/>            | Inheritance     |
| <input type="radio"/>            | Encapsulation   |

Which of the following is a prominent bad smell, if that bad smell will be correct then quality of your object oriented design will be better?

Select the correct option

 Reload Math Equations

- |                                  |                                               |
|----------------------------------|-----------------------------------------------|
| <input checked="" type="radio"/> | Switch statement                              |
| <input type="radio"/>            | Alternative classes with different interfaces |
| <input type="radio"/>            | Temporary field                               |
| <input type="radio"/>            | Refused bequest                               |

Click to Save Answer & Move to Next Question

Question # 1014

Time Left: 75 sec(s)

You want to change something at one place but in return, you have to make many changes at other places with respect to get result of first change.

Select the correct option

 Reload Math Equations

☐

Refused bequest

☐

Temporary field

☐

Object orientation abusers

☒

Change preventers

Click to Save Answer & Move to Next Question



Change preventers make your program complicated and expensive.

Select the correct option

 Reload Math Equations

True



False



Click to Save Answer & Move to Next Question

Question # 3 of 4

Time Left: 05 sec(s)

Normally, all bad smells one way or the other are change preventers but there is a specific change preventer's category.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Click to Save Answer & Move to Next Question

Change preventers, you make change at one place but in return you have to make many changes. Finally, change scope get limited.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | True  |
| <input checked="" type="radio"/> | False |

Click to Save Answer & Move to Next Question

Comments in the code are \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                                    |
|----------------------------------|------------------------------------|
| <input type="radio"/>            | Core part of code                  |
| <input type="radio"/>            | Code will not run without comments |
| <input checked="" type="radio"/> | Dispensable                        |
| <input type="radio"/>            | Tester must check about comments   |

Click to Save Answer & Move to Next Question

Dispensable make code hard to understand and decrease the code efficiency.

Select the correct option

 Reload Math Equations

☐ True

☒ False

Click to Save Answer & Move to Next Question

Dispensable are most critical part of code. If any code missing dispensable, code will not run.

Select the correct option

 Reload Math Equations

☐

True

☒

False

Comments in the code fall in divergent change category of bad code smells.

Select the correct option

 Reload Math Equations

|                                  |                  |
|----------------------------------|------------------|
| <input type="radio"/>            | True             |
| <input checked="" type="radio"/> | False<br>Correct |

Click to Save Answer & Move to Next Question

Which of the following is not from the couplers category of bad smells?

Select the correct option

 Reload Math Equations

|                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | Message chain          |
| <input type="radio"/>            | Feature envy           |
| <input type="radio"/>            | Inappropriate intimacy |
| <input checked="" type="radio"/> | Beautiful chain        |



Sets of classes that know too much about each other's private details.

Select the correct option

 Reload Math Equations

☐

Middle man

☒

Inappropriate Intimacy

☐

Feature Envy

☐

Message chain

A client asks an object for another object and then asks that object for another object etc.

Select the correct option

 Reload Math Equations

- |                                  |                                                |
|----------------------------------|------------------------------------------------|
| <input type="radio"/>            | It is not the violation of law of demter       |
| <input checked="" type="radio"/> | It is the violation of law of demeter          |
| <input type="radio"/>            | It is violation of law of software engineering |
| <input type="radio"/>            | It is violation of object orientation          |

[Click to Show Answer & Move to Next Question](#)

A class depend on another class's data. It is a behavioral form of \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | class cycle          |
| <input type="radio"/>            | friend functionality |
| <input type="radio"/>            | company class        |
| <input checked="" type="radio"/> | god class            |

Click to Save Answer & Move to Next Question

There is no refactoring guidelines available in the refactoring catalog for large classes.

Select the correct option

 Reload Math Equations

True

☐

False

☒

Which of the following refactoring is not in the list of refactoring catalogs to remove duplicate code bad smells?

Select the correct option

 Reload Math Equations

- |                                  |                |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | Code remover   |
| <input type="radio"/>            | Extract method |
| <input type="radio"/>            | Extract class  |
| <input type="radio"/>            | Pull up method |

Any change in system that keep the behavior unchanged is called \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | Rehabilitation |
| <input checked="" type="radio"/> | Refactoring    |
| <input type="radio"/>            | Programming    |
| <input type="radio"/>            | Structuring    |

[Click to Give Answer & Move to Next Question](#)

Question # 1 of 4

Time Left: 79 sec(s)

The extract method can use in both situations, like the large class and large method.

Select the correct option

 Reload Math Equations

☐ False

☒ True

\_\_\_\_\_ is a fundamental refactoring that make design better.

Select the correct option

 Reload Math Equations

|                                  |                     |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | Extract method      |
| <input type="radio"/>            | Polymorphism        |
| <input type="radio"/>            | Inheritance         |
| <input type="radio"/>            | Refactoring catalog |



Question # 3 of 4

Time Left: 82 sec(s)

The extract method is most commonly applied to refactor.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |

When you have a code fragment, you can group logical or algorithmic steps, give them a name, and turn them into a method. This refactoring called \_\_\_\_\_.

Select the correct option

 Reload Math Equations

- |                                  |                     |
|----------------------------------|---------------------|
| <input type="radio"/>            | Grouping steps      |
| <input checked="" type="radio"/> | Extract method      |
| <input type="radio"/>            | Refactoring catalog |
| <input type="radio"/>            | Inheritance         |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 29 sec(s)

A situation in which you are using a temporary variable to hold an expression then \_\_\_\_\_ and convert it into method.

Select the correct option

 Reload Math Equations

- |                                  |                                 |
|----------------------------------|---------------------------------|
| <input checked="" type="radio"/> | Extract the expression          |
| <input type="radio"/>            | Re-write whole code             |
| <input type="radio"/>            | Change IDE                      |
| <input type="radio"/>            | Change the programming language |

Question # 1 of 3

Time Left: 83 sec(s)

```
double basePrice = _quantity * _itemPrice;
```

Select the correct option

 Reload Math Equations

- |                                  |                              |
|----------------------------------|------------------------------|
| <input type="radio"/>            | basePrice is a class         |
| <input checked="" type="radio"/> | basePrice is a variable      |
| <input type="radio"/>            | basePrice is a friend method |
| <input type="radio"/>            | basePrice is a method        |

**Question # 2 of 3**

```
double basePrice =  Correct
```

```
if (basePrice > 1000)
```

```
    return basePrice * 0.95;
```

```
else
```

```
    return basePrice * 0.98;
```

Which expression from the above code, you will extract and put into a method.

Question # 3 of 3

Time Left: 84 sec(s)

A situation in which you are using a temporary variable to hold an expression then \_\_\_\_\_ and convert it into method.

Select the correct option

 Reload Math Equations

|                                  |                                 |
|----------------------------------|---------------------------------|
| <input type="radio"/>            | Re-write whole code             |
| <input type="radio"/>            | Change IDE                      |
| <input type="radio"/>            | Change the programming language |
| <input checked="" type="radio"/> | Extract the expression          |

Question # 1013

Time Left: 75 sec(s)

It improves application maintainability and design.

Select the correct option

 Reload Math Equations

- |                                  |                              |
|----------------------------------|------------------------------|
| <input type="radio"/>            | Refactoring- java method     |
| <input checked="" type="radio"/> | Refactoring-move method      |
| <input type="radio"/>            | Refactoring- C++ main method |
| <input type="radio"/>            | Refactoring- any method      |

Click to Save Answer & Move to Next Question

Violation of single responsibility principle may fix through -----.

Select the correct option

 Reload Math Equations

- |                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| <input checked="" type="radio"/> | Refactoring-move method                            |
| <input type="radio"/>            | It cannot be fixed                                 |
| <input type="radio"/>            | Single responsibility principle cannot be violated |
| <input type="radio"/>            | It can be fixed after apply of C++ main function   |



Question # 2 of 3

Time Left: 79 sec(s)

Move method improve the overall \_\_\_\_\_ of the system.

Select the correct option

 Reload Math Equations

|                                  |                                        |
|----------------------------------|----------------------------------------|
| <input checked="" type="radio"/> | Cohesion                               |
| <input type="radio"/>            | Interface                              |
| <input type="radio"/>            | Increase number of classes in the code |
| <input type="radio"/>            | Increase coupling                      |

In null object refactoring, replace the \_\_\_\_\_ with the null object.

Select the correct option

 Reload Math Equations

- |                                  |                 |
|----------------------------------|-----------------|
| <input type="radio"/>            | Float value     |
| <input checked="" type="radio"/> | Null value      |
| <input type="radio"/>            | Int value       |
| <input type="radio"/>            | Repeated checks |

Click to Save Answer & Move to Next Question

To check a null value while populating data from database, developer need to use repeated conditional checks.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | True  |
| <input checked="" type="radio"/> | False |

\_\_\_\_\_ use to display content in a web browser.

Select the correct option

 Reload Math Equations

|                                  |         |
|----------------------------------|---------|
| <input checked="" type="radio"/> | HTML    |
| <input type="radio"/>            | Excel   |
| <input type="radio"/>            | Pascal  |
| <input type="radio"/>            | Fortran |

Question # 2 of 2

Time Left: 85 sec(s)

In recent times, a video store is like an obsolete concept.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input checked="" type="radio"/> | True  |
| <input type="radio"/>            | False |

Slide Question 2 to Next Question

In a large method, which of the following refactoring is easily applicable?

Select the correct option

 Reload Math Equations

- |                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Code regenerator   |
| <input type="radio"/>            | Code refactoring   |
| <input checked="" type="radio"/> | Extract method     |
| <input type="radio"/>            | Object orientation |

Click to Save Answer & Move to Next Question

If we have a code to refactor, it is hard to think about where to start refactoring.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |

Refactoring through the extract method is most of the common refactoring processes.

Select the correct option

 Reload Math Equations

|                                  |       |
|----------------------------------|-------|
| <input type="radio"/>            | False |
| <input checked="" type="radio"/> | True  |



A method return type was double, during refactoring it will be changed to int type. What type of error will come?

Select the correct option

 Reload Math Equations

|                                  |                    |
|----------------------------------|--------------------|
| <input type="radio"/>            | Global error       |
| <input checked="" type="radio"/> | Rounding-off error |
| <input type="radio"/>            | Easy error         |
| <input type="radio"/>            | No error           |

While refactoring using extract method, developer should be careful about \_\_\_\_\_.

Select the correct option

 Reload Math Equations

|                                  |                          |
|----------------------------------|--------------------------|
| <input checked="" type="radio"/> | Method return type       |
| <input type="radio"/>            | Don't use extract method |
| <input type="radio"/>            | Switch type              |
| <input type="radio"/>            | Programming language     |