

In code bad smells, a _____ is a pointless code whose absence would result in a cleaner, more efficient and more understandable code.

CS603 Final : Software Architecture and Design By Black Vigo



Choices:

Coupler

☐

Dispensable

☒

Change Preventers

☐

Bloaters

☐

_____ is a bad smell, it occurs when a method requires a lot of information from some other class and is also considered as a symptom of behavioral form of 'god class'.

Choices:

☐

Inappropriate intimacy

☐

Middle man

☒

Message chain

☐

Feature envy

_____ is helpful to apply in a situation where a method is using more features of another class than the class on which it is defined.

Choices:

☐ Copy method☐ Extract method☐ Move method☒ Cohesion

By using state design pattern, when an action is called, it is delegated to the _____ state.

Choices:

☐ Next☒ Current☐ Previous☐ Next-to-Next

Question: 4 (Marks: 1)

Attempted Questions: 5

Total Questions: 50

The _____ allows an object to alter its behavior when its internal state changes.

Choices:

Observer Design Pattern

Strategy Design Pattern

State Design Pattern

Façade Design Pattern

Observer design pattern defines a _____ dependency between objects.

Choices:

One-to-one



One-to-many



Many-to-many



Both one-to-one and many-to-many



Which of the following code smells is not a type of object-orientation abusers?

Choices:

Switch statement



Temporary field



Refused bequest



Shotgun surgery



_____ is the process of changing a software system.

Choices:

☐ Data Mining

☐ Debugging

☐ Data Modeling

☒ Refactoring

Which of the following code smells is not a type of object-orientation abusers?

Choices:

Switch statement



Temporary field



Refused bequest



Shotgun surgery



Any class that can be attached to a user-interface but is oblivious to the user-interface is referred to as a _____.

Choices:

☒ Model☐ Interactor☐ Monolithic UI☐ Relationship

_____ improves the performance and responsiveness of your application.

Choices:

☐ Exception Management

☐ Logging and Instrumentation

☒ Caching

☐ Navigation

_____ is a major drawback of using Monolithic User Interfaces(UI) in a software application.

Choices:

☐ Lazy Class☒ Code Duplication☐ Data Class☐ Comments

At the time of designing navigation strategy, consider _____ in a master page, so that it is consistent across pages.

Choices:

- ☐ Primary navigation
- ☐ Top Bar Navigation
- ☒ Encapsulating navigation
- ☐ Hierarchical website navigation

The _____ of your Web application displays the User Interface (UI) and facilitates user interaction.

Choices:

☐ Service Layer☐ Business Layer☐ Data Layer☒ Presentation Layer

At the time of designing the _____ for your Web application, consider how to implement the business logic and long-running workflows.

Choices:

☐ Service Layer

☐ Data Layer

☒ Business Layer

☐ Presentation Layer

MVC in the MVC architectural pattern stands for Model, View and _____.

Choices:☐ Connector☐ Console☒ Controller☐ Characteristics

The architecture is a bridge between _____ and the final (concrete) resulting system.

- A.Design
- B.
- C.
- D.

Choices:

Design



Development goals



Developer



Business goals



An architecture can lead us through the path from abstract goals to a/an _____

Choices:

☒ Concrete system

☐ Business goal

☐ Initial system

☐ Design of a system

We can use load balancing when we deploy our Web application on _____.

Choices:☐ Single Server☐ Client side☐ Local Host☒ Multiple Servers

Pooling of cloud computing resources can help to efficiently serve _____.

Choices:

☐ A Single consumer only

☐ Exactly two consumers

☐ Only homogeneous hosts

☒ Multiple consumers

A/An _____ is a part of a software application that performs a specific task, providing functionality to other parts of the same software application or to other software applications.

Choices:

☐ Server☐ Data☒ Service☐ Architecture

A microservice should be a _____ to the consumers of the service in terms of its implementation and complexity.

Choices:

☐ White Box☒ Black Box☐ Grey Box☐ Transparent

A/An _____ takes requests from clients and routes them to the appropriate microservice through its routing configuration.

Choices:

☐ SMTP server☒ HTTP server☐ FTP server☐ UDP server

The two concepts that are related to polyglot microservices are polyglot programming and _____.

Choices:

☒ Polyglot application☐ Polyglot language☐ Polyglot persistence☐ Polyglot implementation

An architecture is a/an _____ of a system that selects certain details and suppresses others.

Choices:

☒ Abstraction

☐ Study

☐ Breakdown

☐ Analysis

Different views of the human body: the skeletal, the vascular, and the X-ray together they describe the _____ of the human body.

Choices:

☐ Reliability☐ Element☒ Architecture☐ Quality

The architecture should be evaluated for its ability to deliver the system's important _____ attributes.

Choices:

☐ Functionality☒ Quality☐ Interface☐ Control

Wherever possible, design your application so that it can _____ over time to address new requirements and challenges.

Choices:

Consistent



Steady



Change



Stable



_____ add details to the design over multiple passes to make sure that you get the big decisions right first, and then focus on the details.

Choices:

☒ Incrementally☐ Iteratively☐ Step wise☐ At once

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

Choices:

Candidate architecture



Reference application architecture



Baseline architecture



Incremental architecture



Module patterns show _____.

Choices:

☒ Components



☐ Designs

☐ Architecture

☐ Modules

The Software architecture design satisfies _____.

Choices:

☐ Coding

☐ Software Testing

☒ Architectural drivers

☐ Software Maintenance

The _____ drive and guide the design of the software architecture.

Choices:

☐ Programming tools

☐ Architectural drivers

☒ Software requirements

☐ System specifications

The Client part of the application contains the _____ code and the Server contains the _____ in Client Server Architecture.

Choices:

☒ User interface, database

☐ Database, user interface

☐ Database, business code

☐ Database, business logic

Segments of the _____ layer are not allowed to use each other, but segments of the _____ layer are.

Choices:

☒ Top, bottom

☐ Bottom, top

☐ Second, first

☐ Last, first

_____ is also known as architectural pattern.

Choices:

☐ Template

☐ Integrated Development Environment (IDE)

☒ Architectural style

☐ Design

Removing temp variable is good thing because they often cause the need for _____ where none are required.

Choices:

Logic



Code



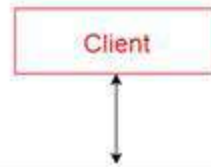
Parameters



Functions



Which component and connector pattern will be used in the below system's view?



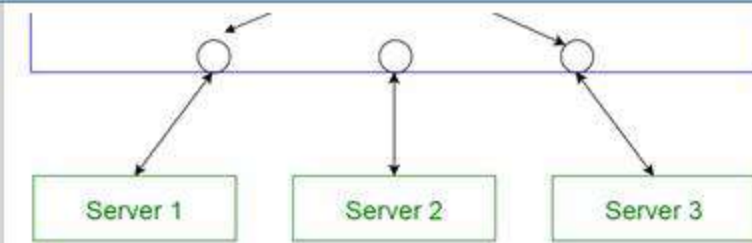
Choices:

☐ Broker pattern

☐ Systematic pattern

☐ MVC pattern

☒ Pipe and filer pattern



Choices:

☐ Broker pattern☐ Systematic pattern☐ MVC pattern☒ Pipe and filer pattern

The shared-data store is also potentially _____.

Choices:

☐ A no failure

☒ A single point of failure

☐ Always succeed

☐ A double point failure

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

Choices:

☐ Micro Services Architecture

☒ Monolithic Architecture

☐ Network Architecture

☐ C-Panel Architecture

Which of the following are the possible refactorings applied on duplicated code?

- 1.Extract method
- 2.Move method
- 3.Extract class
- 4.Abstract class
- 5.Pull Up method
6. Inherited class

Answer:



Martin Fowler has divided the known twenty two bad smells into five categories and “Bloaters” is one of them. Write down the names of any three bad smells that fall in the Bloaters category.

Answer:



You should design a data layer for your web application to abstract the logic which is necessary to access the database. What are the benefits of using a separate data layer?

Answer:



Which Structure is strongly tied to the achievement of performance, availability, and security goals?

Answer:



Patterns can be characterized according to the type of architectural elements they use.
You are required to enlist any two allocation type patterns.

Answer:



Define the concept sidecar with the help of a diagram.

Answer:



Dispensable is a category of bad smell in code, identify the different types of dispensables in code from the given options.

1. Comments
2. Move method
3. Extract method
4. Duplicate code
5. Lazy class
6. Abstract class

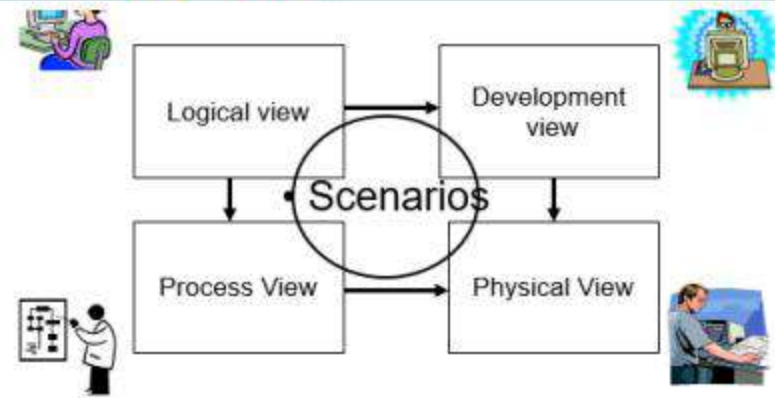
Answer:



Which types of guidelines should be followed at the time of designing request processing strategy for a web application? Explain.

Answer:





Answer:

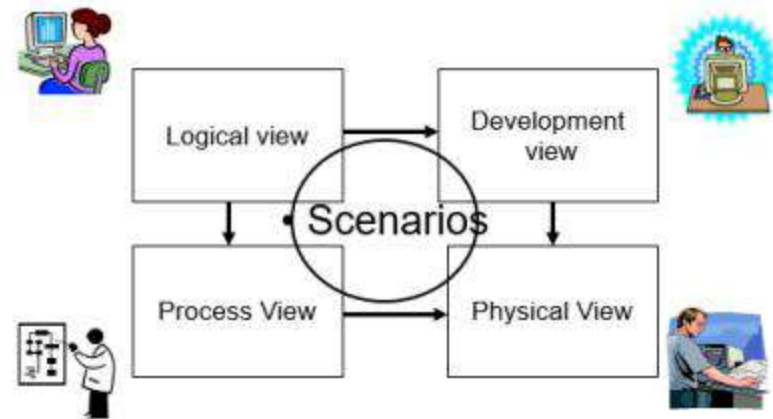


Enlist at least four uses of Software Architecture Patterns?

Answer:



4+1 View Model of Architecture is given below which represents the four different views, you are required to identify the viewers of each type of view and mention their names.



Answer:

