Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 70%. We keep your highest score.

Next item →

1. Which of the following best describes software architecture?   1 / 1 point
   - ○ It describes how the application should be coded.
   - ● It represents the earliest design decisions.
   - ○ The choice of technology stack drives the software architecture.
   - ○ It captures implementation details.

   ✓ **Correct**
   Correct! Software architecture choices represent the earliest design decisions in development.

2. Which of the following are artifacts that result from designing the software architecture?   1 / 1 point
   - ● UML diagrams
   - ○ Administrator user guide
   - ○ Software requirements specification (SRS)
   - ○ Test cases

   ✓ **Correct**
   Correct! UML diagrams are often produced when designing software architecture.

3. Components in a well-structured design should be _____.   1 / 1 point
   - ○ loosely constrained
   - ○ loosely cohesive
   - ● tightly cohesive
   - ○ tightly coupled

   ✓ **Correct**
   Correct! Components in a well-structured design should be tightly cohesive and loosely coupled.

4. Which of the following is an advantage of using UML diagrams when designing software architecture?   1 / 1 point
   - ○ They describe which parameters should be passed when instantiating an object.
   - ● They serve to bring new team members up to speed quickly.
   - ○ They explain which methods should be included when coding an object.
   - ○ They all use JavaScript.

   ✓ **Correct**
   Correct! UML diagrams offer a visual way to explain the design of software which helps to bring new team members up to speed quickly on a project.

5. Which of the following best describes encapsulation?   1 / 1 point
   - ● Bundling data and methods to hide an internal state, so a component's specific implementation is not exposed.
   - ○ A component's design so it doesn't have dependencies on other components.
   - ○ A component should be easily replaced with another component.
   - ○ Designing a component so it operates in different environments.

   ✓ **Correct**
   Correct! This is a description of encapsulation.

6. Which of the following best describes a service?   1 / 1 point
   - ○ A service defines, composes, and implements loosely coupled independent components so they work together to create an application.
   - ○ It is a type of object.
   - ● A unit of functionality that focuses on a solution to a business need, is deployed independently, and is reused by multiple systems.
   - ○ A focus on the decomposition of a design into logical components.

   ✓ **Correct**
   Correct! This is a description of a service.

7. Which statement is true regarding a 2-tier architecture?   1 / 1 point
   - ○ The two different tiers are the application tier and the data tier.
   - ○ A 2-tier architecture consists of a decentralized network of nodes that are both clients and servers.
   - ○ A 2-tier architecture consists of producers and consumers of events.
   - ● The interface resides on client machines and makes requests to a server for data or services.

   ✓ **Correct**
   Correct! The interface resides on the client machines and makes requests to a server for data or services in a 2-tier architecture.

8. Which of the following architecture patterns are mutually exclusive?   1 / 1 point
   - ○ Peer-to-peer and event-driven
   - ● Peer-to-peer and two-tier
   - ○ Three-tier and microservices
   - ○ Microservices and event-driven

   ✓ **Correct**
   Correct. In a peer-to-peer architecture, each node is both client and server whereas a two-tier architectural pattern involves clients communicating with servers on separate machines.

9. Which of the following environments is intended for developers to use while they are actively coding the application?   1 / 1 point
   - ● Development
   - ○ QA
   - ○ Production
   - ○ Staging

   ✓ **Correct**
   Correct! The development environment is intended for developers to use while they are actively coding the application.

10. Which of the following is a security device that monitors traffic between an internal and an external network?   1 / 1 point
    - ● Firewall
    - ○ Router
    - ○ Load balancer
    - ○ Web server

    ✓ **Correct**
    Correct! A firewall is a security device that monitors traffic between an interior and an exterior network.