

# 11 Lecture - CS504

## Important Mcqs

Which of the following is NOT a software design principle? a) Encapsulation b) Abstraction c) Polymorphism d) Inheritance **Solution: c) Polymorphism**

Which design pattern is used to decouple objects and promote loose coupling? a) Observer b) Singleton c) Factory d) Prototype **Solution: a) Observer**

Which software design principle states that software entities should have only one reason to change? a) Single Responsibility Principle (SRP) b) Open-Closed Principle (OCP) c) Liskov Substitution Principle (LSP) d) Interface Segregation Principle (ISP) **Solution: a) Single Responsibility Principle (SRP)**

Which design pattern is used to create objects without specifying their exact class? a) Adapter b) Prototype c) Builder d) Abstract Factory **Solution: b) Prototype**

Which design principle promotes the idea of coding to an interface rather than an implementation? a) Dependency Inversion Principle (DIP) b) Interface Segregation Principle (ISP) c) Liskov Substitution Principle (LSP) d) Open-Closed Principle (OCP) **Solution: b) Interface Segregation Principle (ISP)**

Which design pattern is used to provide a simple interface to a complex subsystem? a) Facade b) Decorator c) Proxy d) Composite **Solution: a) Facade**

Which design principle suggests that classes should be open for extension but closed for modification? a) Interface Segregation Principle (ISP) b) Liskov Substitution Principle (LSP) c) Single Responsibility Principle (SRP) d) Open-Closed Principle (OCP) **Solution: d) Open-Closed Principle (OCP)**

Which design pattern is used to encapsulate the creation of an object into a single function call? a) Singleton b) Abstract Factory c) Builder d) Factory Method **Solution: d) Factory Method**

Which software design principle suggests that high-level modules should not depend on low-level modules but both should depend on abstractions? a) Dependency Inversion Principle (DIP) b) Liskov Substitution Principle (LSP) c) Interface Segregation Principle (ISP) d) Single Responsibility Principle (SRP) **Solution: a) Dependency Inversion Principle (DIP)**

Which design pattern is used to encapsulate a request as an object, thereby allowing users to parameterize clients with queues, requests, and operations? a) Iterator b) Command c) Strategy d) Memento **Solution: b) Command**