Day 26 22/08/2025

Task 01:

What do you know about design workflow?

This concept is similar to SDLC where the process has a sequence of tasks and collaboration to ensure design is consistent, efficient meets the requirement.

It brings clarity and quality in the development process.

Task 02:

What do you know about persistent objects?

A persistent object is an object whose state is saved to some form of storage so that it can outlive the program execution.

A persistent object keeps its state even after the program stops, and when the program runs again, the object can be restored from storage.

Task 04

Which of the following components is not typically part of the Command pattern?

a) Invoker

b) Receiver

c) Abstract Factory

d) Command (interface/abstract class)

Task 05:

What role does the Invoker play in the Command pattern?

a) It knows how to perform the operations associated with a request.

b) It encapsulates the request as an object.

c) It asks the command to carry out the request.

d) It defines the interface for executing an operation.

Task 06

A key benefit of using the Command pattern is its ability to support:

a) Lazy initialization

b) Undo/Redo functionality

c) Singleton instance creation

d) Compile-time polymorphism

Task 07

In the Strategy pattern, what role does the "Context" play?

A. It defines the interface for the algorithms.

B. It implements a specific algorithm.

C. It maintains a reference to a Strategy object and delegates the task to it.

D. It creates the Concrete Strategy objects.

Task 08

In which of the following mechanisms, types of all variables and expressions are fixed at compilation time.

a) Strong Typing

b) Weak Typing

c) Static Binding/ early binding

d) Dynamic Binding/ late binding

Task 09

In which pattern does a class represent the functionality of another class, providing a simplified interface to a complex subsystem?

a) Decorator Pattern

b) Facade Pattern

c) Proxy Pattern

d) Composite Pattern

Task 10

Which of the following statements about Persistence is correct?

a) It is the enforcement of the class of an object, such that objects of different types may not be interchanged, or at the most they may be interchanged only in very restricted ways.

b) It is the property of an object through which its existence transcends time and/or space.

c) It is the property that distinguishes an active object from one that is not active.

d) All of the mentioned

Task 11

What is that concept in type theory in which a single name may denote objects of many different classes that are related by some common super class referred to \_\_\_\_\_\_

a) Monomorphism

b) Type Checking

c) Polymorphism

d) Generalization

Task 12:

Which of the following patterns is used to create a single instance of a class and provide a global point of access to it?

a) Factory Pattern

b) Singleton Pattern

c) Builder Pattern

d) Prototype Pattern

Task 13:

The Adapter pattern is a type of \_\_\_\_\_\_ pattern.

a) Creational

b) Structural

c) Behavioral

d) Concurrency

Task 14:

Which design pattern defines a one-to-many dependency between objects so that when one object changes state, all its dependents are notified and updated automatically?

a) Strategy Pattern

b) Command Pattern

c) Observer Pattern

d) Mediator Pattern

Task 15:

The Model-View-Controller (MVC) is an example of a \_\_\_\_\_\_ pattern.

a) Creational

b) Structural

c) Behavioral

d) Architectural