24/04/2024

Design Patterns in Java

A design patterns are **well-proved solution** for solving the specific problem/task.

Problem Given:
Suppose you want to create a class for which only a single instance (or object) should be created and that single object can be used by all other classes.

Solution:
Singleton design pattern is the best solution of above specific problem. So, every design pattern has **some specification or set of rules** for solving the problems. What are those specifications, you will see later in the types of design patterns.

When should we use the design patterns?

We must use the design patterns **during the analysis and requirement phase of SDLC**(Software Development Life Cycle).

Design patterns ease the analysis and requirement phase of SDLC by providing information based on prior hands-on experiences.

Categorization of design patterns:

Basically, design patterns are categorized into two parts:

1. Core Java (or JSE) Design Patterns.

2. JEE Design Patterns.

a) Singleton type pattern
b) Proto type Design Pattern
c) MVC Type Design Pattern