

# Design Patterns

TL;DR

## What is a design pattern?

Design patterns are best practise strategies to solve a recurring problem.

Whenever a problem arises, there are two options.

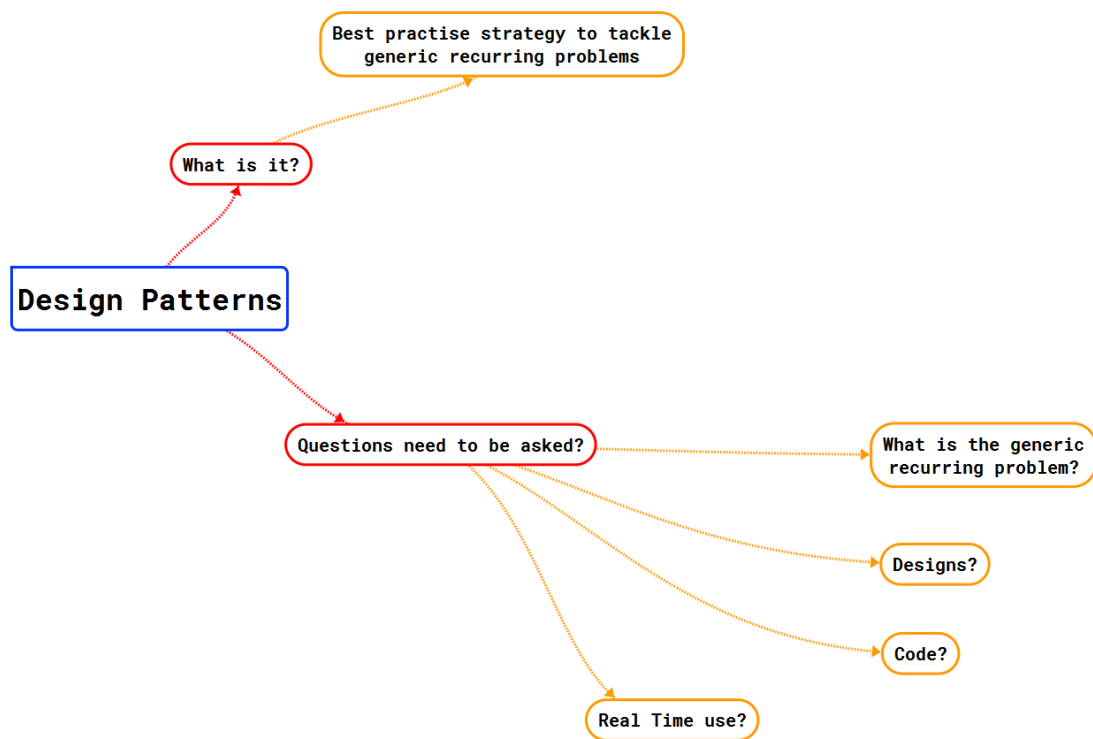


Figure 1: Design Patters

- If the problem is specific, invent a solution
- If the problem is generic and repeating, use design patterns

Questions to be asked when studying a design pattern

1. What is the common recurring problem?
2. What are the best strategies to solve them? (aka design)
3. Sample code
4. Real time use

## Types of design patterns

There are 3 types of design patterns (CSB)

**1. Creational design patterns** Creational design patterns focus on controlling the object creation process

e.g: Constructor, Factory, Prototype, Singleton, Builder

**2. Structural Design Patterns** Structural design patterns focus on realizing relationships between different objects.

e.g: Decorator, facade, Flyweight, Adapter, Proxy

**3. Behavioral design Patterns** Behavioral design patterns focus on improving or streamlining communication between objects

e.g: Iterator, Mediator, Observer and mediator.

## Interview Questions

1. [Awesome Interview](#)
2. [InterviewBit](#)