

Software Design Patterns

Design Pattern

A design pattern is a general reusable solution to a commonly occurring problem within a given context in software design.

Patterns are formalized best practices that the programmers should use and implement in the applications.

Elements of Patterns

In general patterns have 4 main elements:

- 1. Pattern Name**
- 2. Problem Description**
- 3. Solution and Structure of it**
- 4. Consequences when using the solution**

What you need to learn

You should know

1. When to use the pattern?
2. Why to use the specific pattern?
3. How to use the pattern solution?
4. What are Pros/Cons?
5. What are other related patterns?

Advantages of using Design Patterns

Flexibility

Understandability

Modularity

Better Code Reuse

Reducing the number of code lines

Hiding Complexity

... and many others