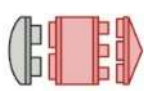


Factory Method



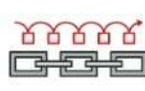
Abstract  
Factory



Adapter



Bridge



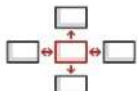
Chain of  
Responsibility



Command



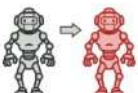
Iterator



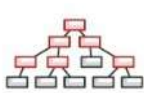
Mediator



Builder



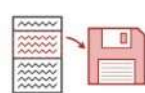
Prototype



Composite



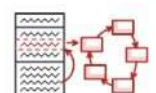
Decorator



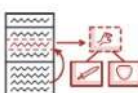
Memento



Observer



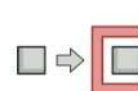
State



Strategy



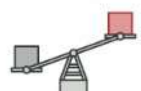
Singleton



Proxy



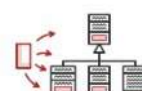
Facade



Flyweight



Template  
Method



Visitor



# When to Use Which Design Pattern

## Creational

If the Problem is related to Object Creation.



Singleton

Makes sure there is just one instance.



Factory Method

Assigns subclasses the task of instantiating objects.



Abstract Factory

Constructs related object families without defining their concrete classes.



Prototype

Clones objects to provide a template example.



Builder

Helps in building the complex objects step by step.

## Structural

If the Problem is related to Object Assembly.



Adapter

Acts as a bridge between two incompatible interfaces



Bridge

Separates the abstraction from the implementation.



Composite

Handles single and composite objects equally.



Decorator

Adds behaviors to objects dynamically.



Facade

Helps in Simplifying the complex system interfaces.



Flyweight

Shares common parts of state between multiple objects to reduce memory.



Proxy

Controls the access to an object.

## Behavioral

If the Problem is related to Object Interactions.



Observer

Observes and notifies changes in multiple objects.



Strategy

Encapsulates the interchangeable algorithms.



Command

Encapsulates requests as objects for decoupled execution.



State

It Changes the behavior of object with internal state.



Visitor

It separates algorithms from objects.



Memento

Pattern to manage object state and actions.



Iterator

It Sequentially accesses the elements of a collection.



Mediator

Central controller managing communication between objects.



Chain of Responsibility

Pass request through handlers until one handles it.



Template Method

Defines the skeleton of an algorithm.