# **Behavioral Design Patterns**

**Memento**: Allows restoring an object to a previous state.

State: Allows an object to behave differently depending on the state it is in.

**Iterator**: Allows iterating over an object without having to expose the object's internal structure (which may change in the future).

**Strategy**: Allows passing different algorithms (behaviours) to an object. Allows defining a template (skeleton) for an operation. Specific steps will then be implemented in subclasses.

**Command**: Allows decouple a sender from a receiver. The sender will talk to the receive through a command. Commands can be undone and persisted.

Observer: Allows an object notify other objects when its state changes.

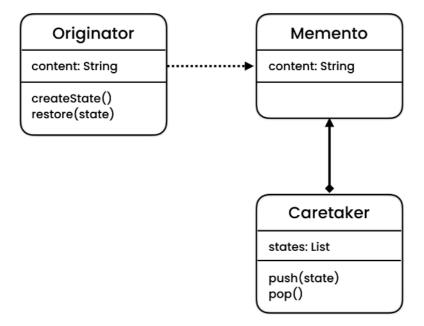
**Mediator**: Allows an object to encapsulate the communication between other objects.

**Chain of Responsibility**: Allows building a chain of objects to process a request.

**Visitor**: Allows adding new operations to an object structure without modifying it.

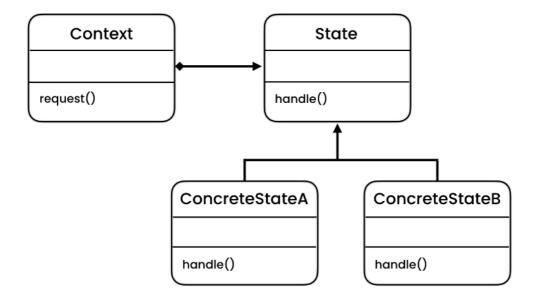
### Memento Pattern

Allows restoring an object to a previous state.



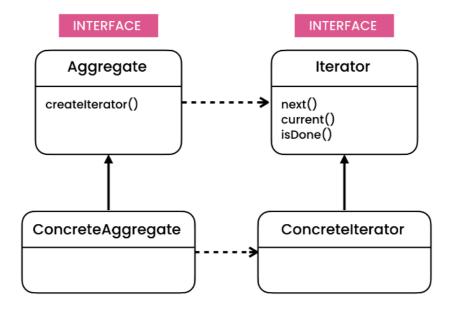
### State Pattern

Allows an object to behave differently depending on the state it is in.



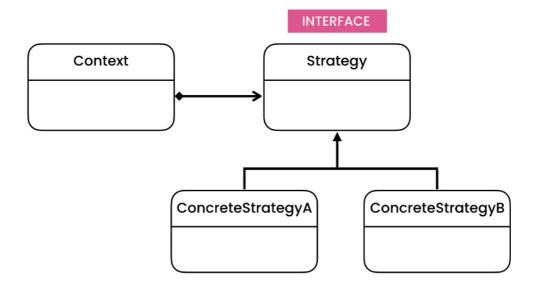
### **Iterator Pattern**

Allows iterating over an object without having to expose the object's internal structure (which may change in the future).



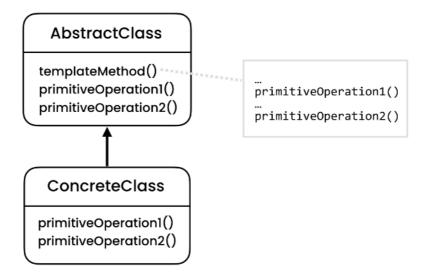
## Strategy Pattern

Allows passing different algorithms (behaviours) to an object.



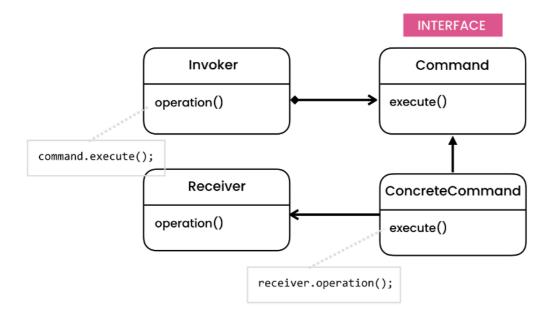
## **Template Method Pattern**

Allows defining a template (skeleton) for an operation. Specific steps will then be implemented in subclasses.



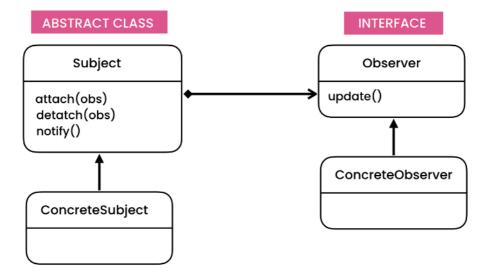
### **Command Pattern**

Allows decouple a sender from a receiver. The sender will talk to the receive through a command. Commands can be undone and persisted.



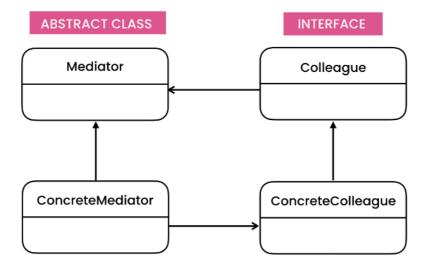
### **Observer Pattern**

Allows an object notify other objects when its state changes.



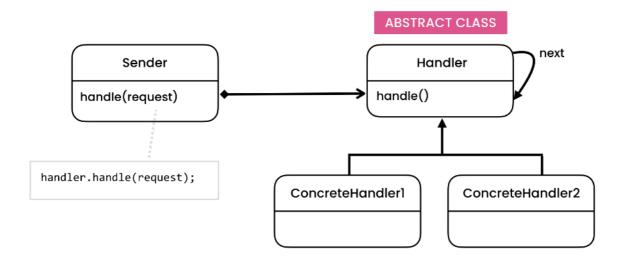
## **Mediator Pattern**

Allows an object to encapsulate the communication between other objects.



# Chain of Responsibility Pattern

Allows building a chain of objects to process a request.



### **Visitor Pattern**

Allows adding new operations to an object structure without modifying it.

