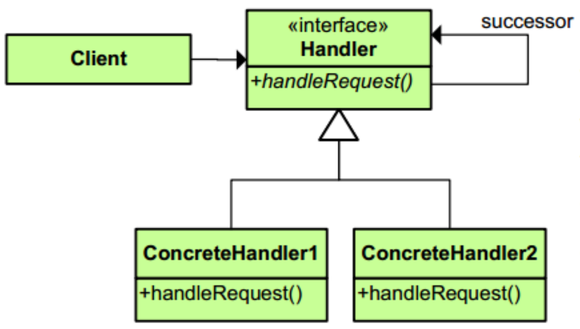
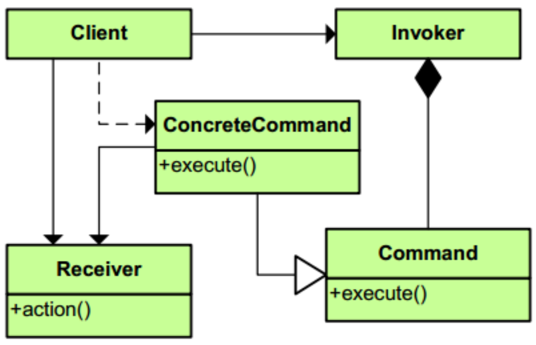
C	Abstract Factory	S	Facade	S	Proxy
S	Adapter	C	Factory Method	B	Observer
S	Bridge	S	Flyweight	C	Singleton
C	Builder	B	Interpreter	B	State
B	Chain of Responsibility	B	Iterator	B	Strategy
B	Command	B	Mediator	B	Template Method
S	Composite	B	Memento	B	Visitor
S	Decorator	C	Prototype		



Chain of Responsibility

Type: Behavioral

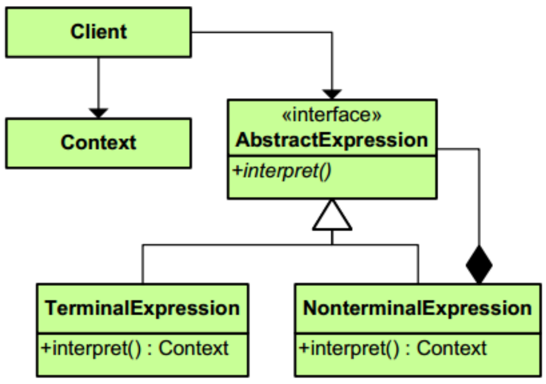
What it is:
Avoid coupling the sender of a request to its receiver by giving more than one object a chance to handle the request. Chain the receiving objects and pass the request along the chain until an object handles it.



Command

Type: Behavioral

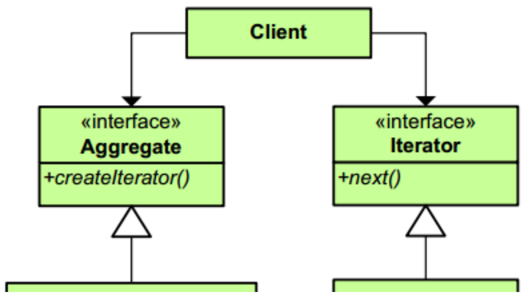
What it is:
Encapsulate a request as an object, thereby letting you parameterize clients with different requests, queue or log requests, and support undoable operations.



Interpreter

Type: Behavioral

What it is:
Given a language, define a representation for its grammar along with an interpreter that uses the representation to interpret sentences in the language.



Iterator

Type: Behavioral

What it is:
Provide a way to access the elements of an aggregate object sequentially without exposing its underlying representation.

Memento

Type: Behavioral

What it is:
Without violating encapsulation, captur and externalize an object's internal stat so that the object can be restored to th state later.

Observer

Type: Behavioral

What it is:
Define a one-to-many dependency be objects so that when one object chang state, all its dependents are notified a updated automatically.

State

Type: Behavioral

What it is:
Allow an object to alter its behavior whe its internal state changes. The object w appear to change its class.

Strategy

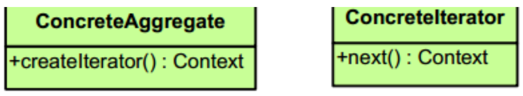
Type: Behavioral

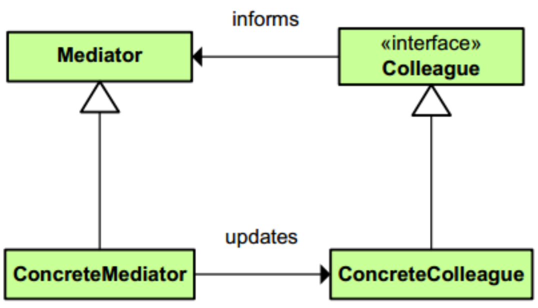
What it is:
Define a family of algorithms, encapsulate each one, and make them interchangeable. Lets the algorithm var independently from clients that use it.

Template Method

Type: Behavioral

What it is:
Define the skeleton of an algorithm in a operation, deferring some steps to sub Lets subclasses redefine certain steps of an algorithm without changing the algorithm's structure.





Mediator

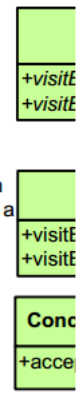
Type: Behavioral

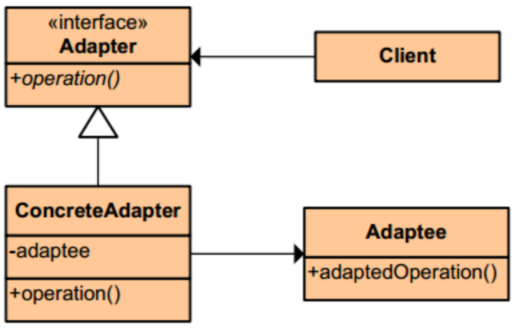
What it is:
Define an object that encapsulates how a set of objects interact. Promotes loose coupling by keeping objects from referring to each other explicitly and it lets you vary their interactions independently.

Visitor

Type: Behavioral

What it is:
Represent an operation to be performed on the elements of an object structure. Lets you define a new operation without changing the classes of the elements on which it operates.





Adapter

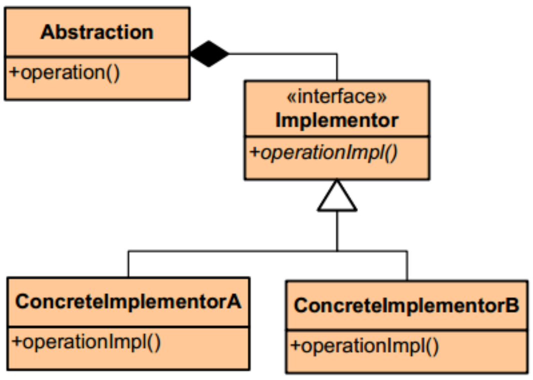
Type: Structural

What it is:
Convert the interface of a class into another interface clients expect. Lets classes work together that couldn't otherwise because of incompatible interfaces.

Proxy

Type: Structural

What it is:
Provide a surrogate or placeholder for another object to control access to it.



Bridge

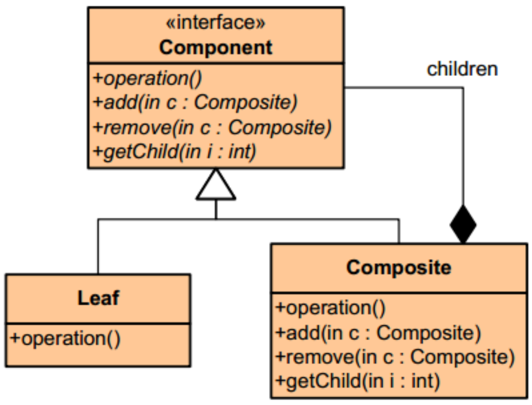
Type: Structural

What it is:
Decouple an abstraction from its implementation so that the two can vary independently.

Abstract Factory

Type: Creational

What it is:
Provides an interface for creating families of related or dependent objects without specifying their concrete class.



Composite

Type: Structural

What it is:
Compose objects into tree structures to represent part-whole hierarchies. Lets clients treat individual objects and compositions of objects uniformly.

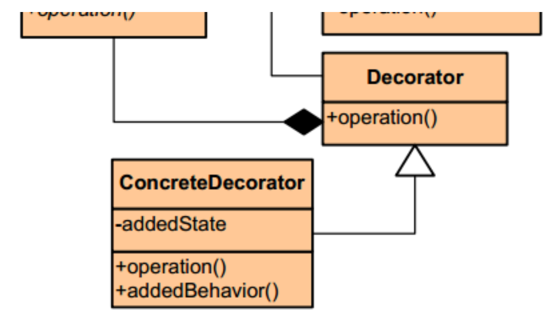
Builder

Type: Creational

What it is:
Separate the construction of a complex object from its representing so that the same construction process can create different representations.

Decorator

Factory Method

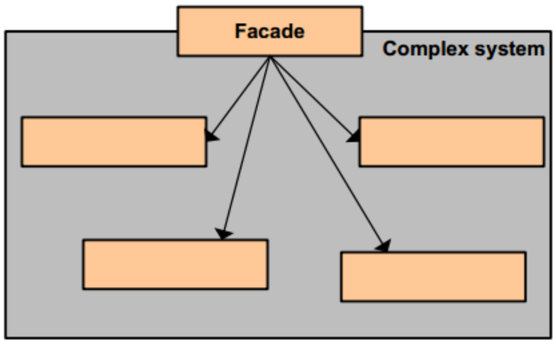


Type: Structural

What it is:
Attach additional responsibilities to an object dynamically. Provide a flexible alternative to sub-classing for extending functionality.

Type: Creational

What it is:
Define an interface for creating an object, but let subclasses decide whic class to instantiate. Lets a class defer instantiation to subclasses.



Facade

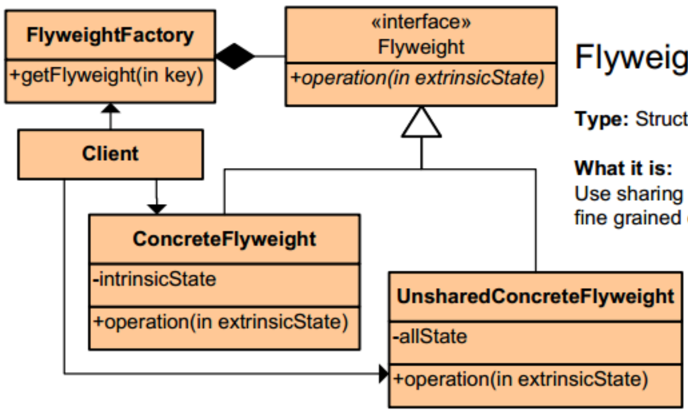
Type: Structural

What it is:
Provide a unified interface to a set of interfaces in a subsystem. Defines a high-level interface that makes the subsystem easier to use.

Prototype

Type: Creational

What it is:
Specify the kinds of objects to create using a prototypical instance, and create new objects by copying this prototype.


FlyweightFactory
+getFlyweight(in key)
«interface»
Flyweight
+operation(in extrinsicState)
Client
ConcreteFlyweight
-intrinsicState
+operation(in extrinsicState)
UnsharedConcreteFlyweight
-allState
+operation(in extrinsicState)

Flyweight

Type: Structural

What it is:
Use sharing to support large numbers of fine grained objects efficiently.

Singleton

Type: Creational

What it is:
Ensure a class only has one instance a provide a global point of access to it.

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