

# Adapter

Type: Structural

#### What it is:

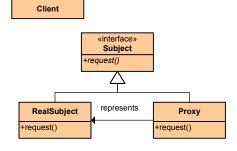
Convert the interface of a class into another interface clients expect. Lets classes work together that couldn't otherwise because of incompatible

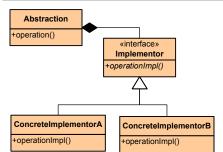
interfaces.

# Proxy Type: Structural

What it is:

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





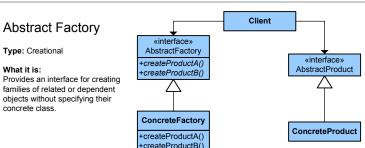
### Bridge

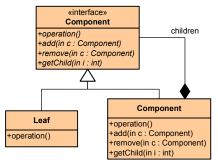
Type: Structural

#### What it is:

Decouple an abstraction from its implementation so that the two can vary

independently.





## Composite

Type: Structural

#### What it is:

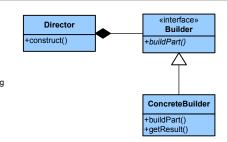
Compose objects into tree structures to represent part-whole hierarchies. Lets clients treat individual objects and compositions of objects uniformly.

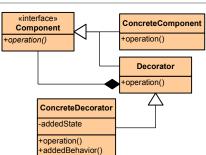
### Builder

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

Type: Structural

#### What it is:

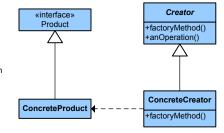
Attach additional responsibilities to an object dynamically. Provide a flexible alternative to sub-classing for extending functionality.

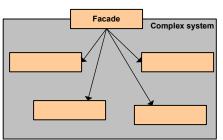
# Factory Method

Type: Creational

#### What it is:

Define an interface for creating an object, but let subclasses decide which class to instantiate. Lets a class defer instantiation to subclasses.

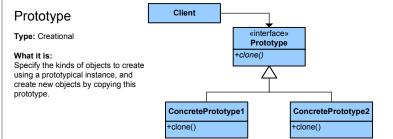


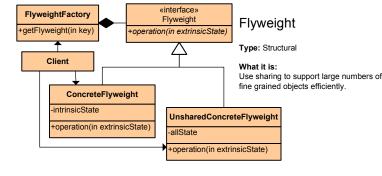


## Facade

Type: Structural

Provide a unified interface to a set of interfaces in a subsystem. Defines a highlevel interface that makes the subsystem easier to use.





# Singleton

Type: Creational

#### What it is:

Ensure a class only has one instance and provide a global point of access to it.

#### Singleton -static uniqueInstance -singletonData

+static instance() +SingletonOperation()