Hamarosan kezdünk...

Java programozás haladóknak
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2016

Java programozás haladóknak 3. nap

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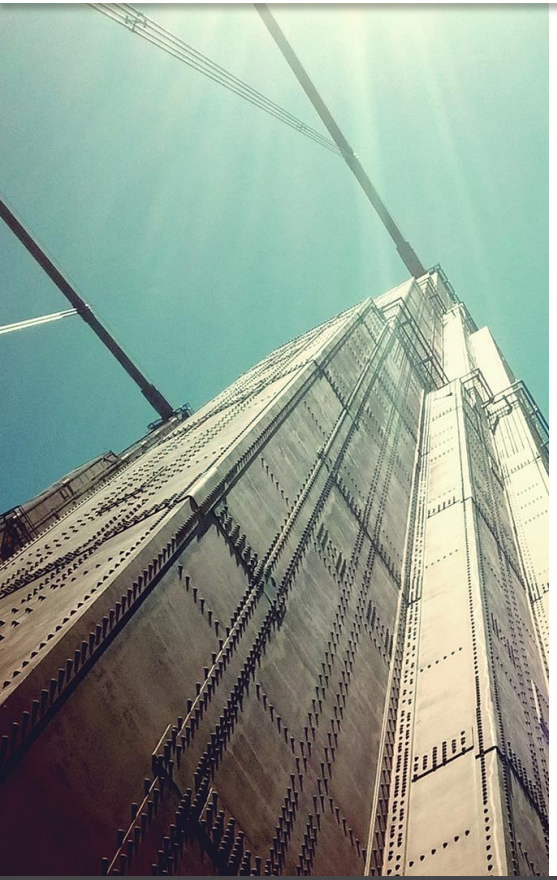
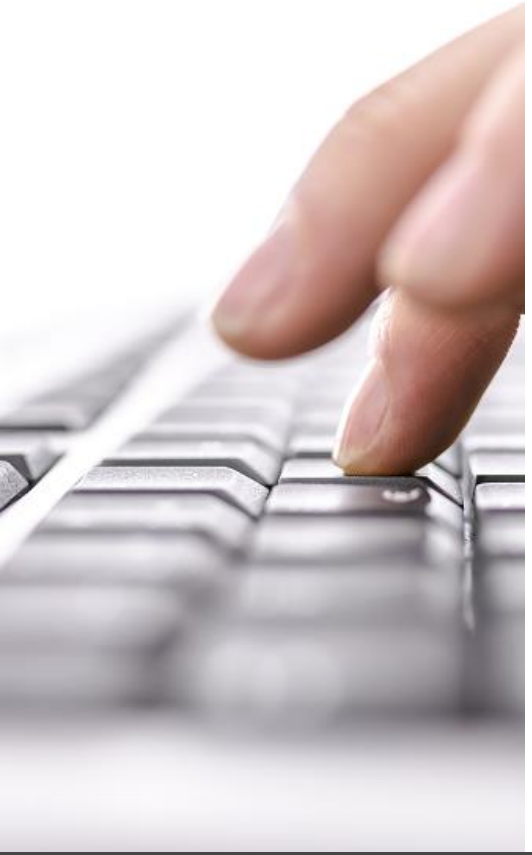
Design patterns



Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice

Christopher Alexander: A Pattern Language: Towns, Buildings, Construction

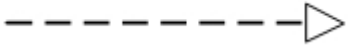
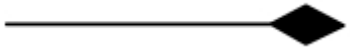
Design patterns



Descriptions of communicating objects and classes that are customized to solve a general design problem in a particular context

The Gang of Four: Design Patterns

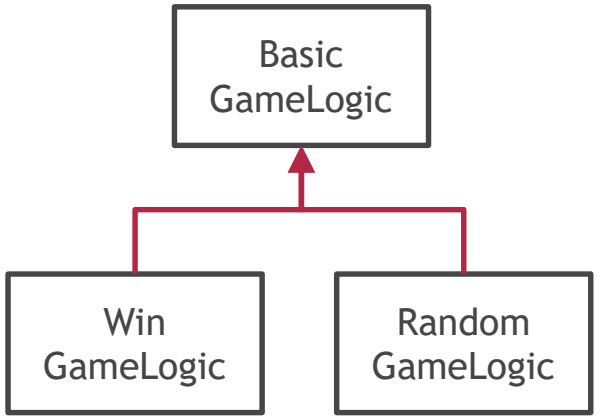
UML - Basic Notations

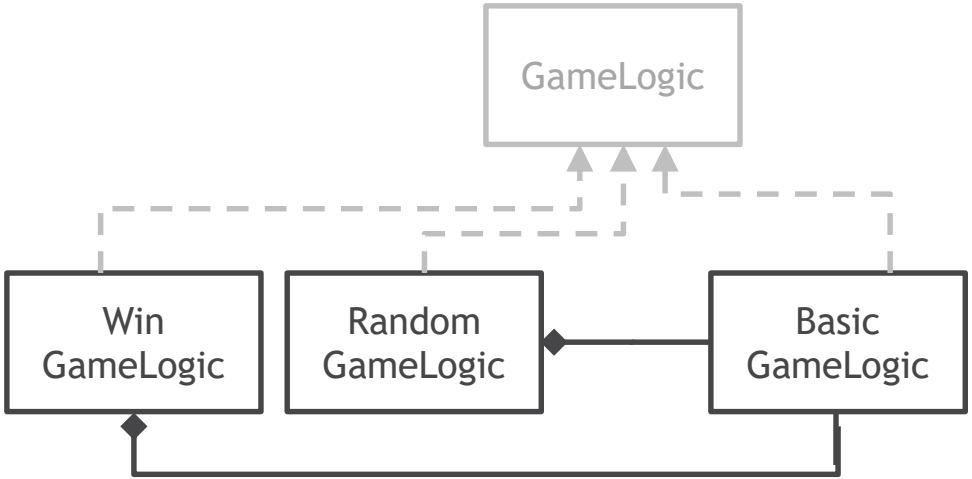
- Inheritance  **extends**
- Implementation  **implements**
- Composition 
- Aggregation 
- Association 

~ field

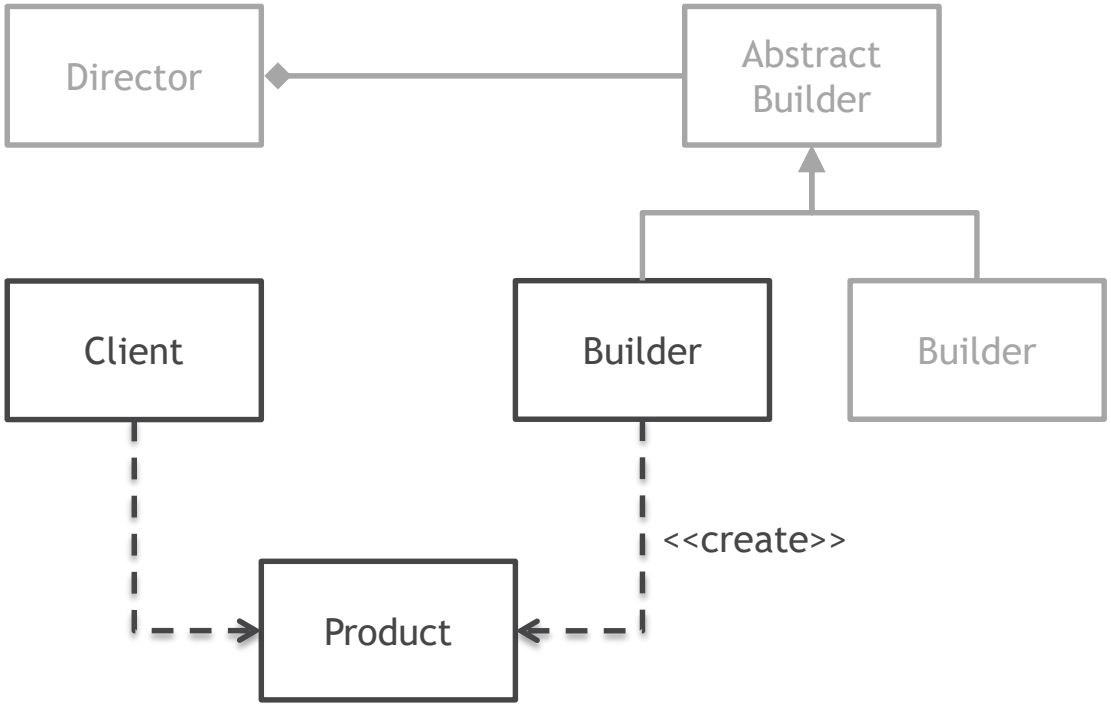
- Dependency  ~ may be affected

Favour composition over inheritance

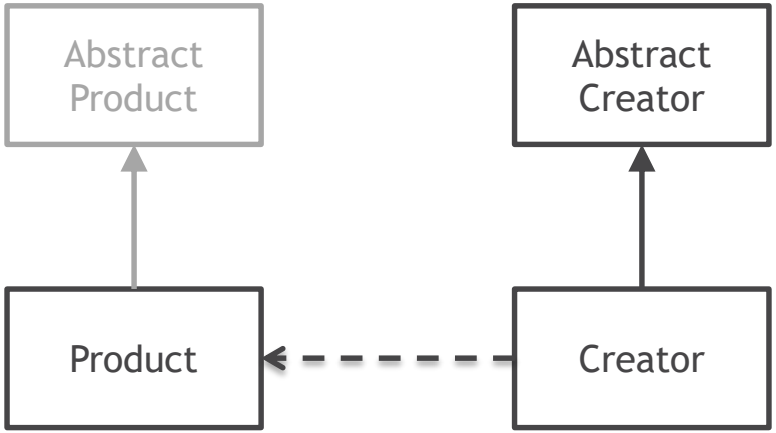




Builder


Director
Abstract Builder
Client
Builder
Builder
<<create>>
Product

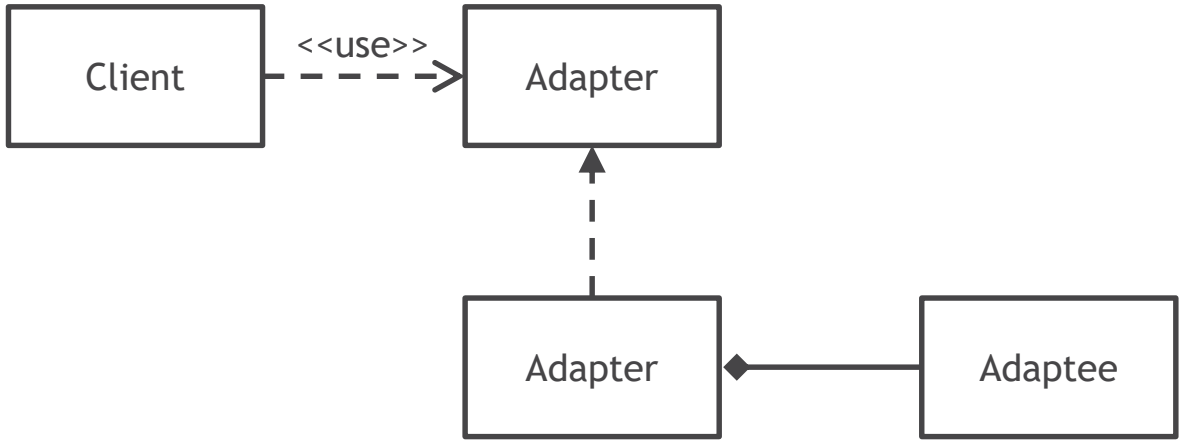
Factory Method



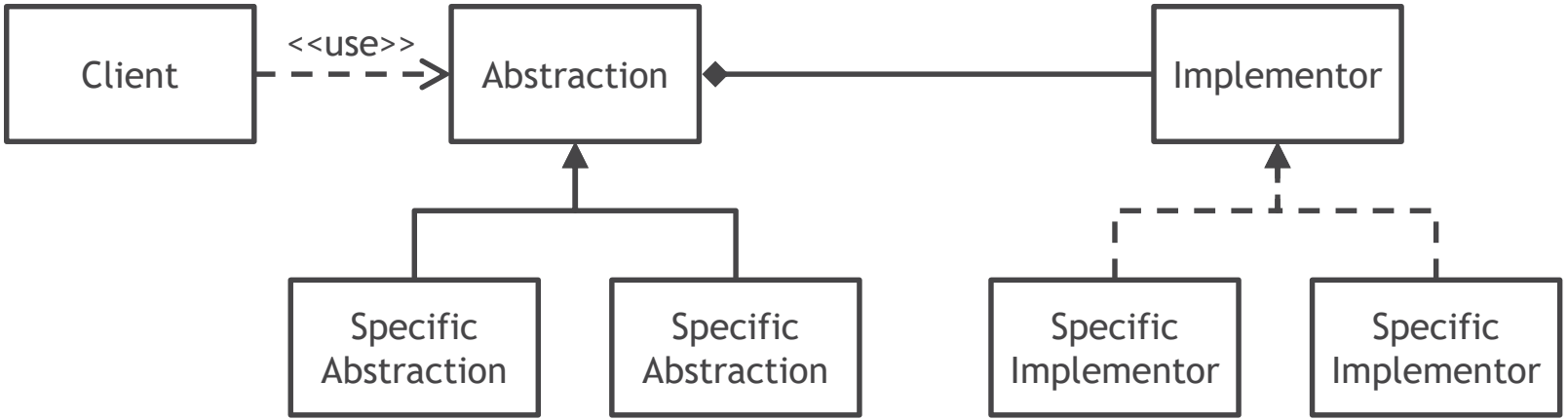
Singleton

```
public final class Singleton {
    private static final Singleton instance = new Singleton();

    private Singleton() {
    }

    public static Singleton getInstance() {
        return instance;
    }
}
```

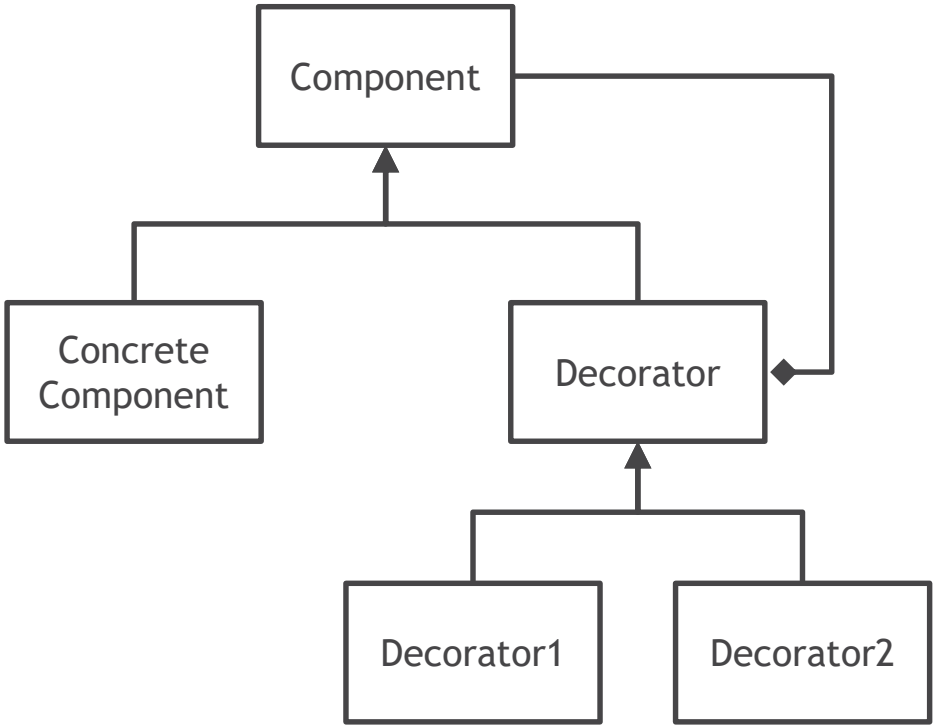
Adapter



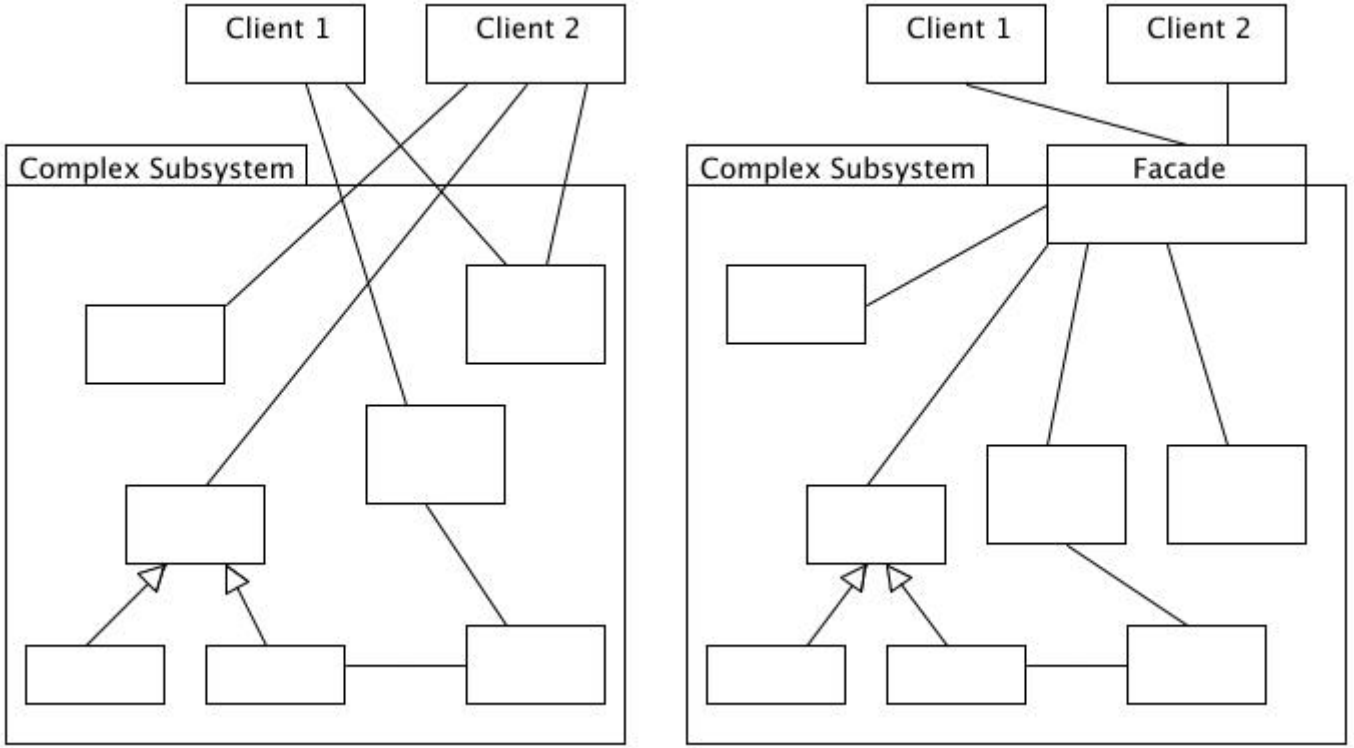
Bridge


Client
<<use>>
Abstraction
Implementor
Specific Abstraction
Specific Abstraction
Specific Implementor
Specific Implementor

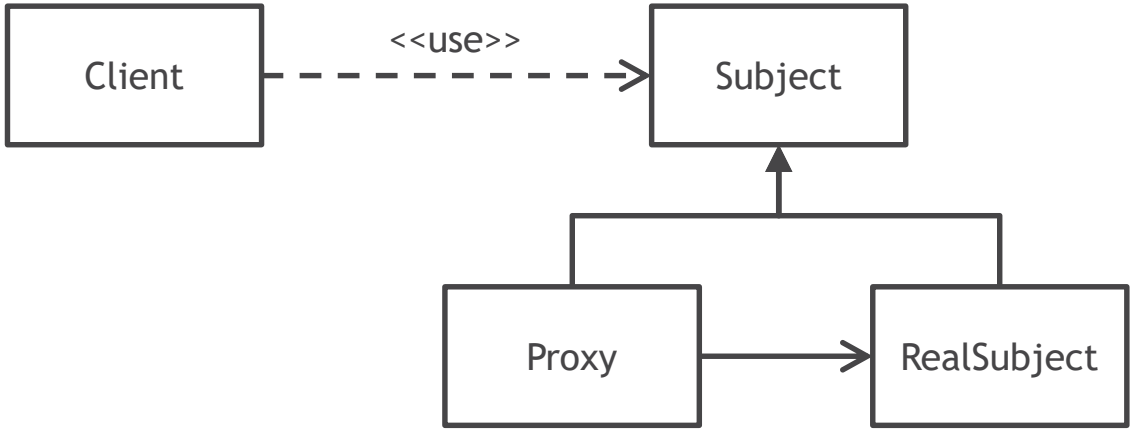
Decorator


Component
Concrete Component
Decorator
Decorator1
Decorator2

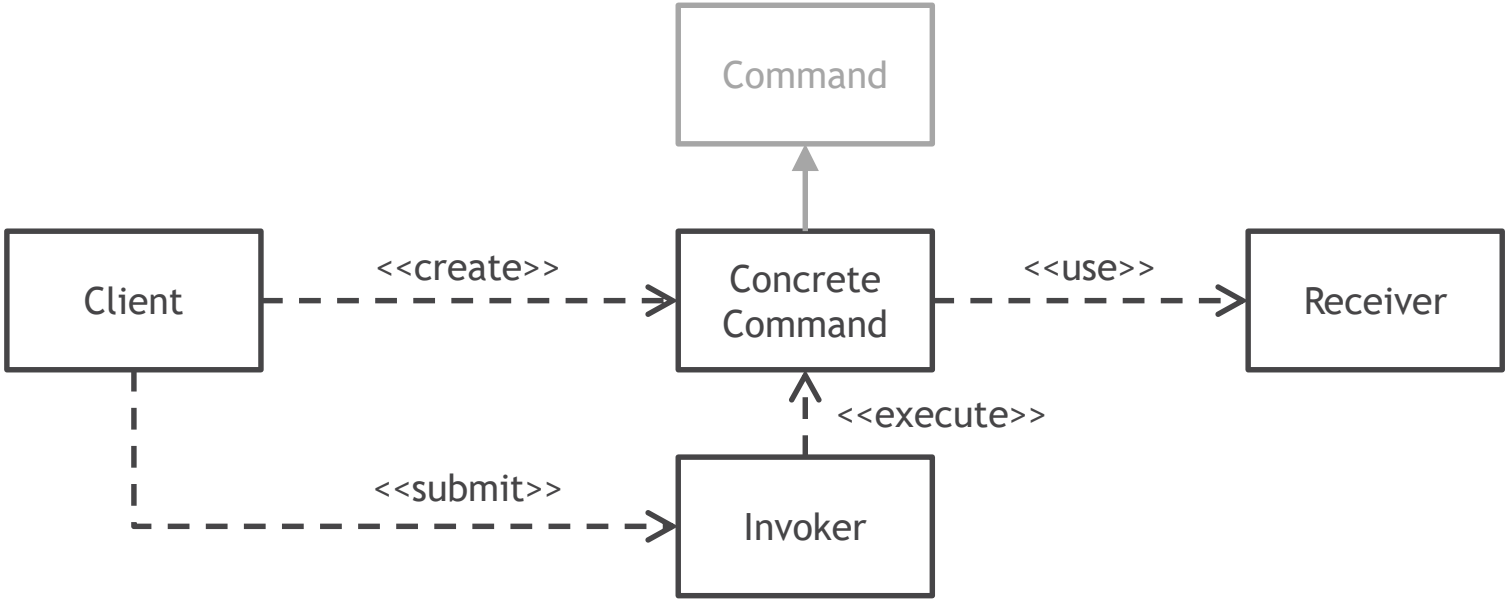
Facade


Client 1
Client 2
Complex Subsystem
Client 1
Client 2
Complex Subsystem
Facade

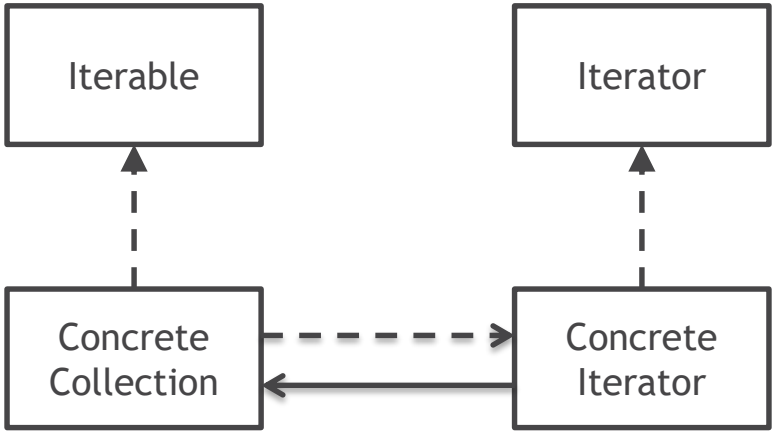
Proxy



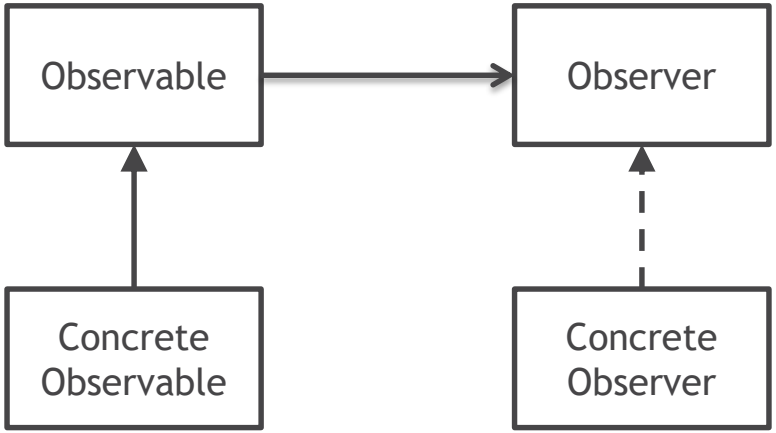
Command


Command
Client
<<create>>
Concrete Command
<<use>>
Receiver
<<execute>>
<<submit>>
Invoker

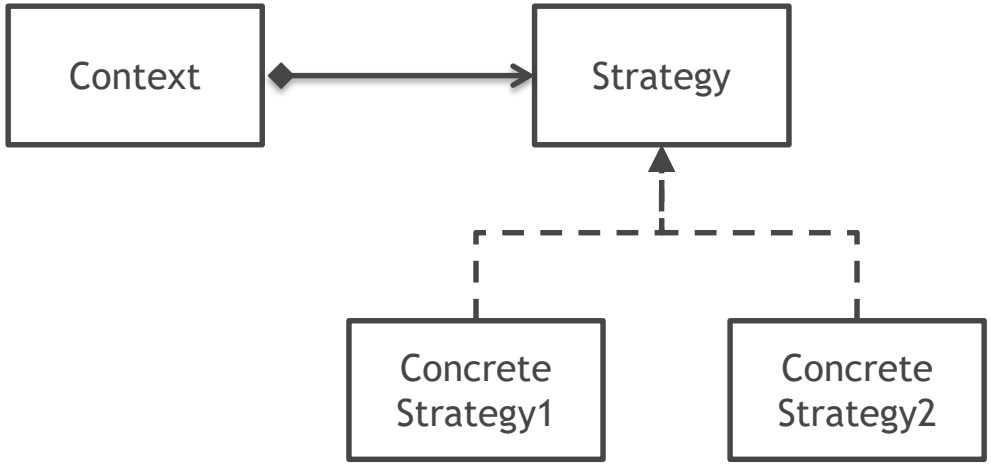
Iterator


Iterable
Iterator
Concrete Collection
Concrete Iterator

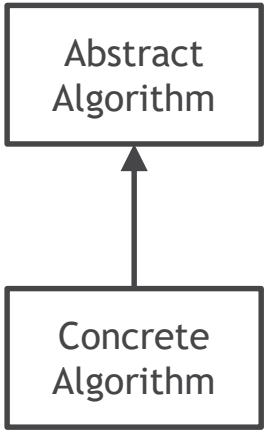
Observer


Observable
Observer
Concrete Observable
Concrete Observer

Strategy



Template Method



Szünet, Hamarosan folytatjuk

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Köszönöm a figyelmet!

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