



Design Patterns Tutorial

- ▣ Design Patterns - Home
- ▣ Design Patterns - Overview
- ▣ Design Patterns - Factory Pattern
- ▣ Abstract Factory Pattern
- ▣ Design Patterns - Singleton Pattern
- ▣ Design Patterns - Builder Pattern
- ▣ Design Patterns - Prototype Pattern
- ▣ Design Patterns - Adapter Pattern
- ▣ Design Patterns - Bridge Pattern
- ▣ Design Patterns - Filter Pattern
- ▣ Design Patterns - Composite Pattern
- ▣ Design Patterns - Decorator Pattern
- ▣ Design Patterns - Facade Pattern
- ▣ Design Patterns - Flyweight Pattern
- ▣ Design Patterns - Proxy Pattern
- ▣ Chain of Responsibility Pattern
- ▣ Design Patterns - Command Pattern
- ▣ Design Patterns - Interpreter Pattern
- ▣ Design Patterns - Iterator Pattern



- ▣ Design Patterns - Observer Pattern
- ▣ Design Patterns - State Pattern
- ▣ Design Patterns - Null Object Pattern
- ▣ Design Patterns - Strategy Pattern
- ▣ Design Patterns - Template Pattern
- ▣ Design Patterns - Visitor Pattern
- ▣ Design Patterns - MVC Pattern
- ▣ Business Delegate Pattern
- ▣ Composite Entity Pattern
- ▣ Data Access Object Pattern
- ▣ Front Controller Pattern
- ▣ Intercepting Filter Pattern
- ▣ Service Locator Pattern
- ▣ Transfer Object Pattern

Design Patterns Resources

- ▣ Design Patterns - Questions/Answers
- ▣ Design Patterns - Quick Guide
- ▣ Design Patterns - Useful Resources
- ▣ Design Patterns - Discussion

Design Patterns - Strategy Pattern


[⬅ Previous Page](#)
[Next Page ➡](#)

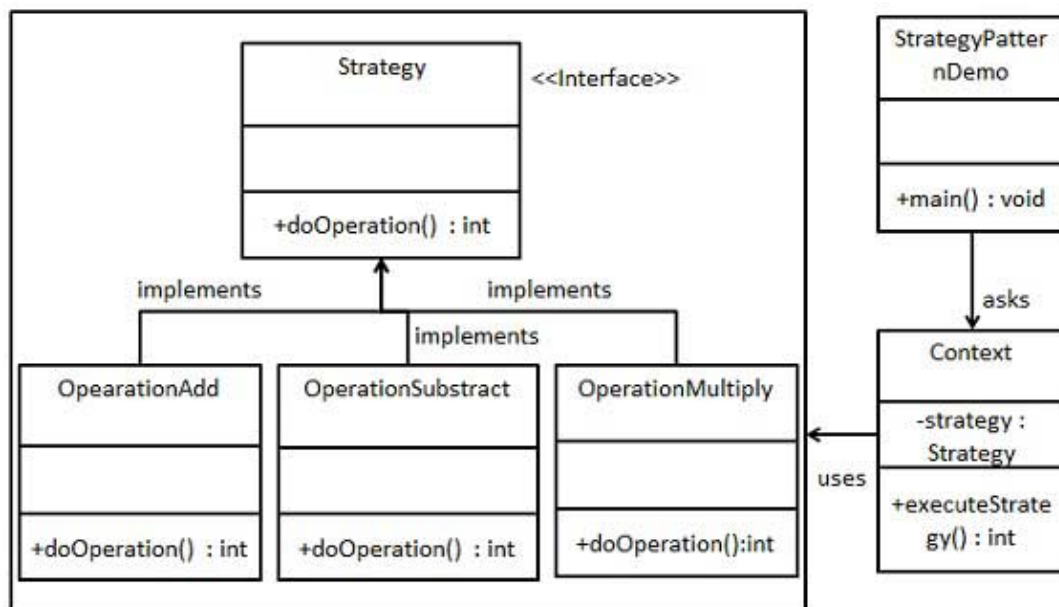
In Strategy pattern, a class behavior or its algorithm can be changed at run time. This type of design pattern comes under behavior pattern.

In Strategy pattern, we create objects which represent various strategies and a context object whose behavior varies as per its strategy object. The strategy object changes the executing algorithm of the context object.

Implementation

We are going to create a *Strategy* interface defining an action and concrete strategy classes implementing the *Strategy* interface. *Context* is a class which uses a Strategy.

StrategyPatternDemo, our demo class, will use *Context* and strategy objects to demonstrate change in Context behaviour based on strategy it deploys or uses.



Step 1

Create an interface.

Strategy.java

```

public interface Strategy {
    public int doOperation(int num1, int num2);
}
  
```



OperationAdd.java

```
public class OperationAdd implements Strategy{
    @Override
    public int doOperation(int num1, int num2) {
        return num1 + num2;
    }
}
```

OperationSubtract.java

```
public class OperationSubtract implements Strategy{
    @Override
    public int doOperation(int num1, int num2) {
        return num1 - num2;
    }
}
```

OperationMultiply.java

```
public class OperationMultiply implements Strategy{
    @Override
    public int doOperation(int num1, int num2) {
        return num1 * num2;
    }
}
```

Step 3

Create *Context* Class.

Context.java

```
public class Context {
    private Strategy strategy;

    public Context(Strategy strategy){
        this.strategy = strategy;
    }

    public int executeStrategy(int num1, int num2){
        return strategy.doOperation(num1, num2);
    }
}
```

Step 4

Use the *Context* to see change in behaviour when it changes its *Strategy*.

StrategyPatternDemo.java



```
context = new Context(new OperationSubtract());  
System.out.println("10 - 5 = " + context.executeStrategy(10, 5));  
  
context = new Context(new OperationMultiply());  
System.out.println("10 * 5 = " + context.executeStrategy(10, 5));  
}  
}
```

Step 5

Verify the output.

```
10 + 5 = 15  
10 - 5 = 5  
10 * 5 = 50
```

[⏪ Previous Page](#)

[Next Page ⏩](#)

Advertisements



© Copyright 2015. All Rights Reserved.

Enter email for newsletter

go