







## Cuándo utilizarlos



## Cuándo NO utilizarlos



## Dónde utilizarlos



## Beneficios



## Clasificación

**Propósito** 

**Alcance** 



	Propósito			
	2	De Creación	Estructural	De Comportamiento
Alcance	Clase	Factory Method	Adapter	Interpreter
				Template Method
		Abstract Factory		Chain of Responsability
		Builder	Bridge	Command
		Prototype	Composite	Iterator
		Singleton	Decorator	Mediator
			Facade	Memento
			Flyweight	Observer
	2 2 3 4 4 1 1 1 1 1		Proxy	State
				Strategy
				Visitor



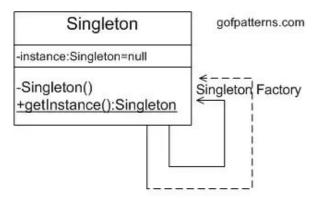
#### Patrones de diseño - Creacionales - PDDC

## Creacionales

## Singleton

## **Singleton**

## The Singleton Pattern



Access modifiers in class diagram: +, -, #

```
+ public,
- private,
# protected
```



## **Singleton**

#### Singleton

- instance:
- singletonData;
- + getInstance()
  - retorna la unica instancia
- + getSingletonData()
- + singletonOperation()



## **Singleton**

```
InstitutoEducativo
```

- instance : InstitutoEducativo
- + getInstance() : InstitutoEducativo
- InstitutoEducativo()

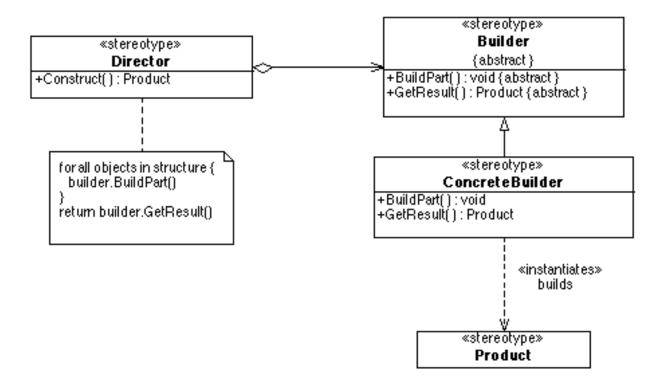


# PDDC Singleton DEMO



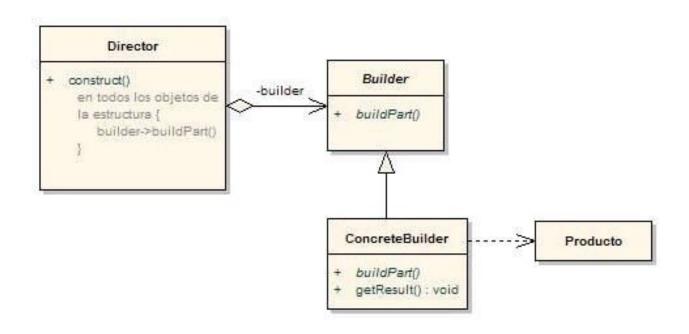
## Builder

## Builder





## **Builder**





#### Builder AutoDirector + autoBuilder : AutoBuilder + AutoDirector() + getAuto() : Auto + setAutoBuilder(ab : AutoBuilder) : void + constructAuto(): void AutoBuilder FordBuilder Auto + motor : Motor # auto : Auto + marca : String + buildPuertas() : void + modelo : String + buildPuertas() : void + buildMarca() : void + cantidadDePwertas : int + buildMarca() : void + buildModelo() : void + buildModelo() : void + buildMotor() : void + Auto() + buildMotor() : void + crearAuto() : void + getAuto() : Auto FiatBuilder Motor java.lang.String + buildPuertas() : void + potencia : String + buildMarca() : void + numero : int + buildModelo() : void int + buildMotor() : void + Motor() de **Río Negro**



## PDDC Builder DEMO



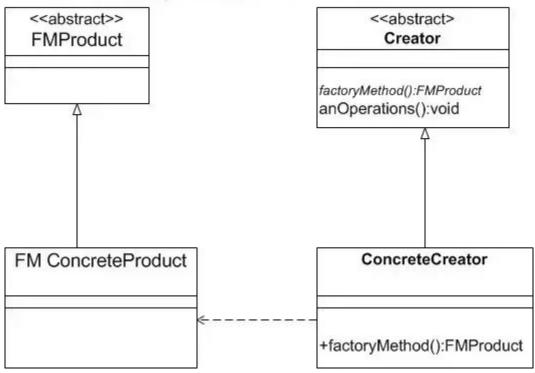
# PDDC Builder CONSECUENCIAS



## **Factory Method**

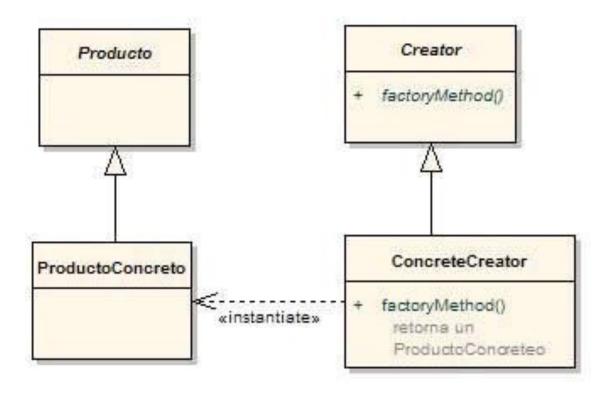
## **Factory Method**

## The Factory Method Pattern



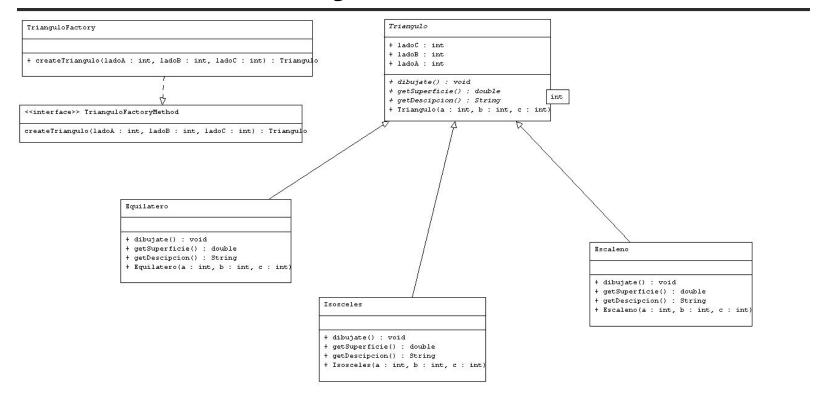


## **Factory Method**





## **Factory Method**





# PDDC Factory Method DEMO

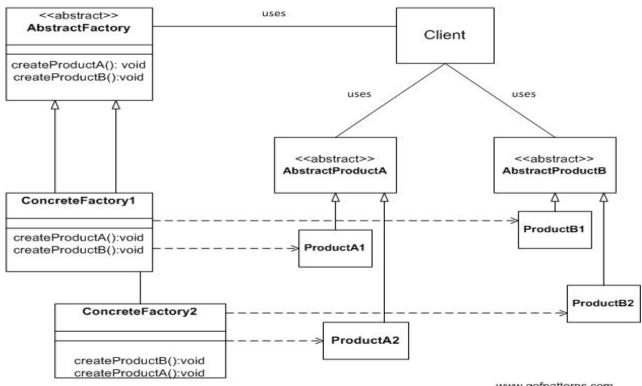


# PDDC Factory Method CONSECUENCIAS



## **Abstract Factory**

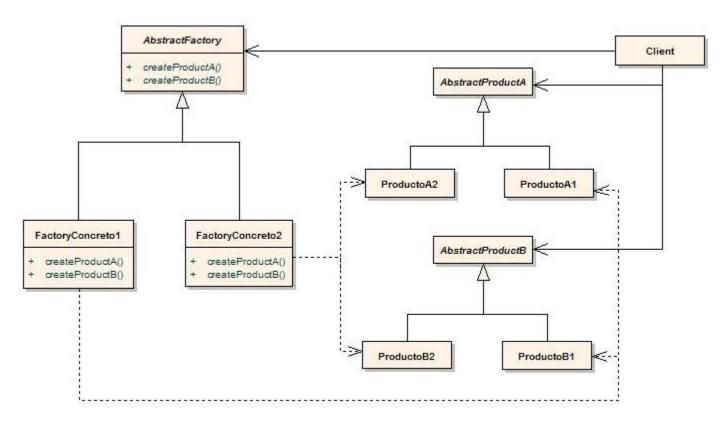
The Abstract Factory Pattern



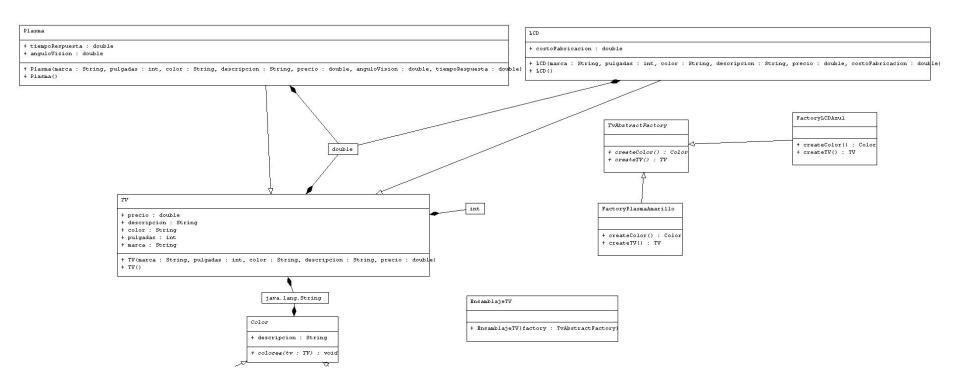


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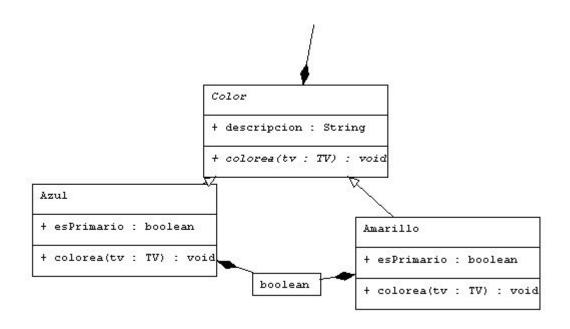
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# PDDC Abstract Factory DEMO



## PDDC Abstract Factory CONSECUENCIAS



	Propósito			
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Alcance	Clase	Factory Method	Adapter	Interpreter
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				Strategy
				Visitor



#### Patrones de diseño - Estructurales - PDDE

## Estructurales

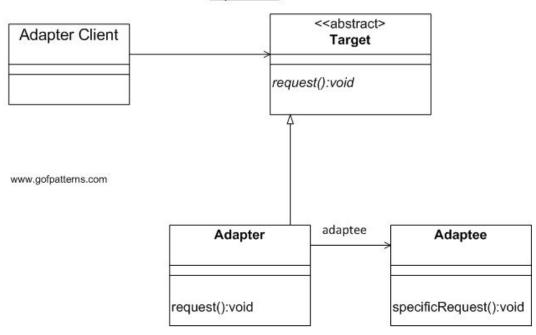
### **PDDE**

## Adapter

## **Adapter**

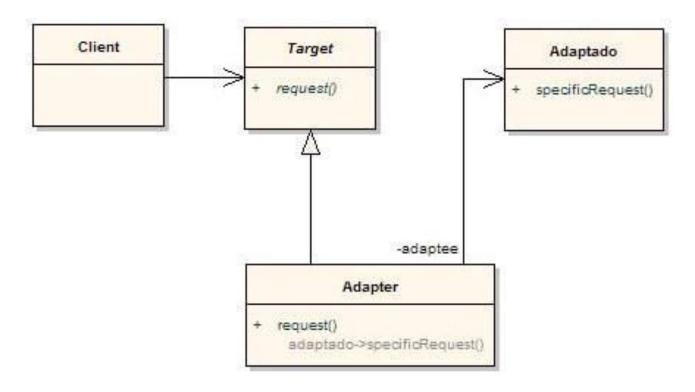
#### The Adapter Pattern

Implements an interface known to its clients.



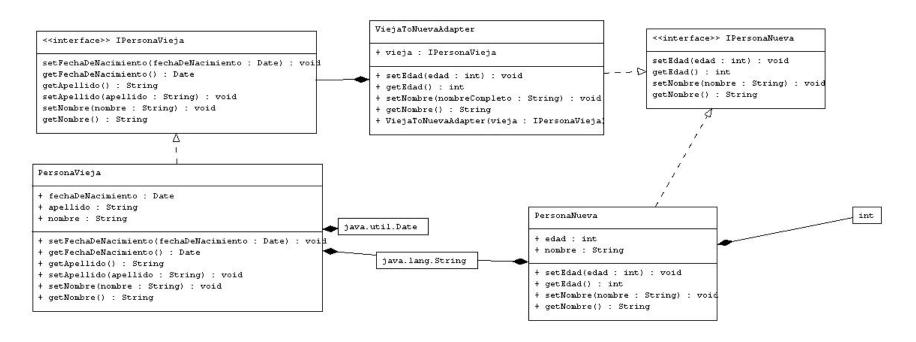


## **Adapter**





## **Adapter**





# PDDE Adapter DEMO



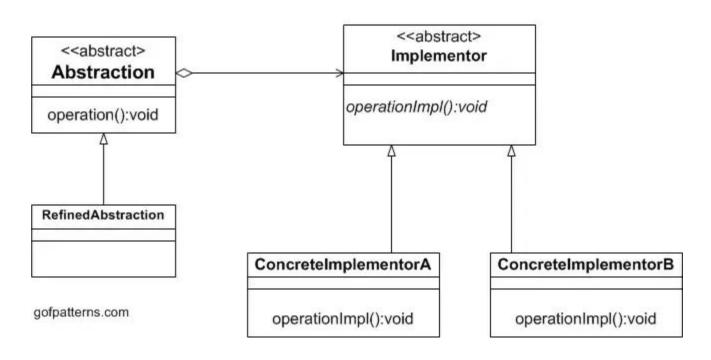
## PDDE Adapter CONSECUENCIAS





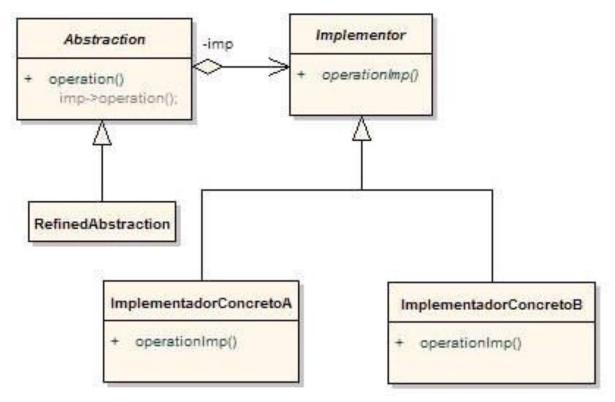
## **Bridge**

#### The Bridge Pattern





## **Bridge**





# PDDE Bridge DEMO



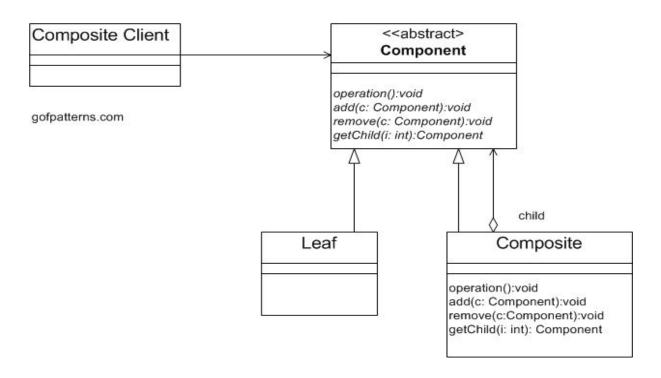
## PDDE Bridge CONSECUENCIAS



# Composite

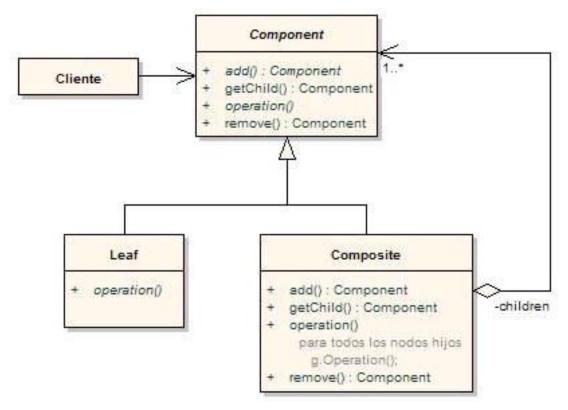
## Composite

#### The Composite Pattern





## Composite





# PDDE Composite DEMO

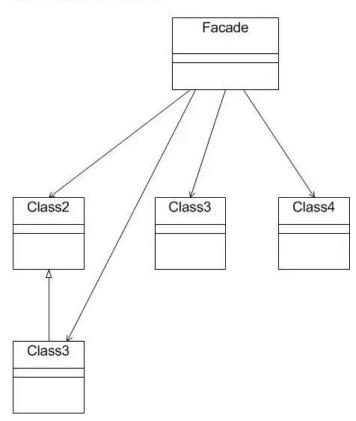


# PDDE Composite CONSECUENCIAS

# Facade

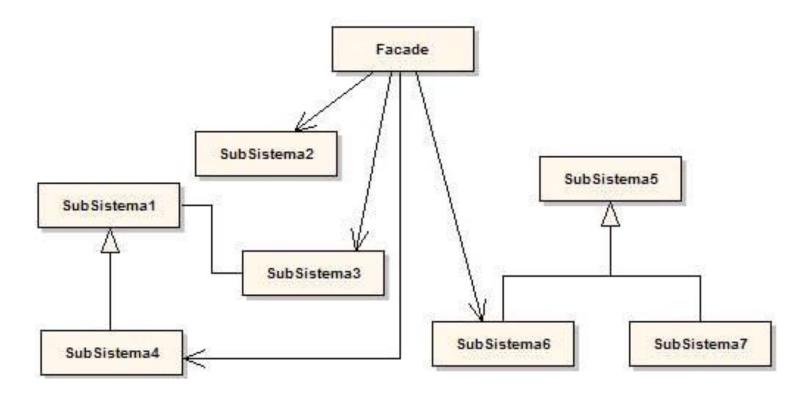
## **Facade**

The Façade Pattern





## **Facade**





# PDDE Facade DEMO

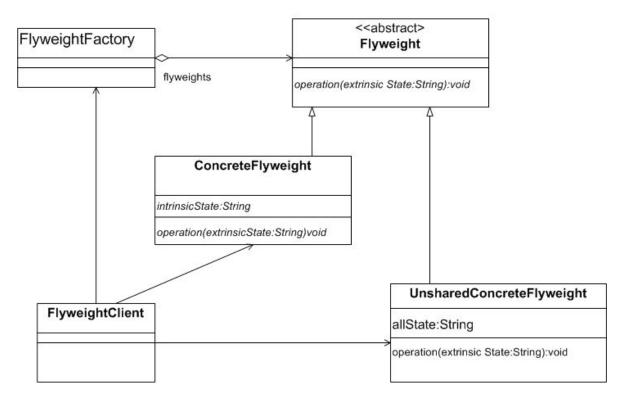
## PDDE Facade CONSECUENCIAS



# **Flyweight**

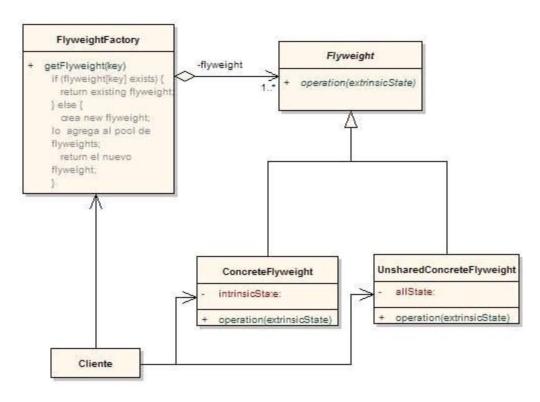
## **Flyweight**

The Flyweight Pattern





## **Flyweight**





# PDDE Flyweight DEMO



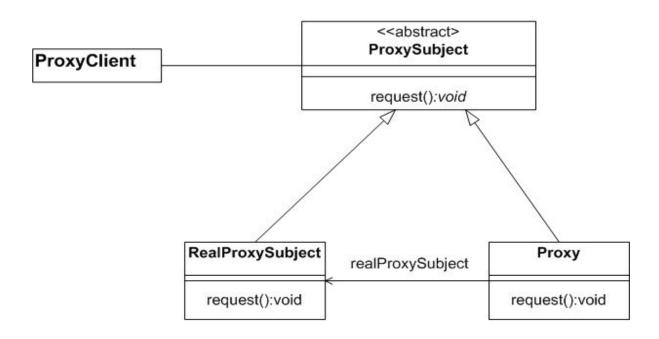
# PDDE Flyweight CONSECUENCIAS





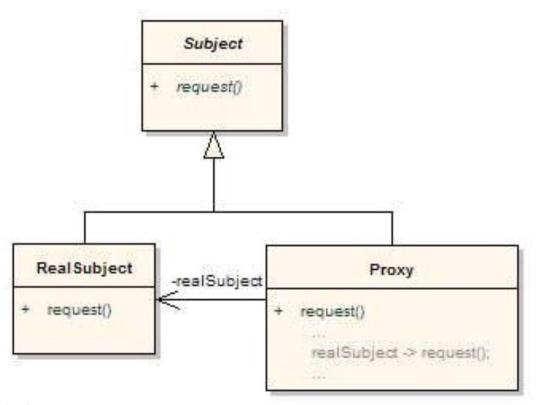
## **Proxy**

#### The Proxy Pattern





## **Proxy**





# PDDE Proxy DEMO



## PDDE Proxy CONSECUENCIAS



## Patrones de diseño

	Propósito			
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			Flyweight	Observer
	2 2 3 4 4 1 1 1 1 1		Proxy	State
				Strategy
				Visitor



## Patrones de diseño - Comportamiento- PDDCO

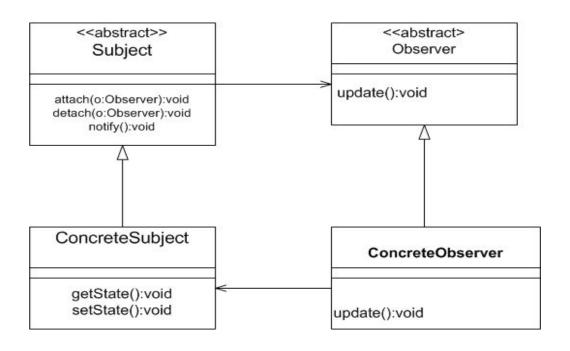
# Comportamiento

#### **PDDCO**

## Observer

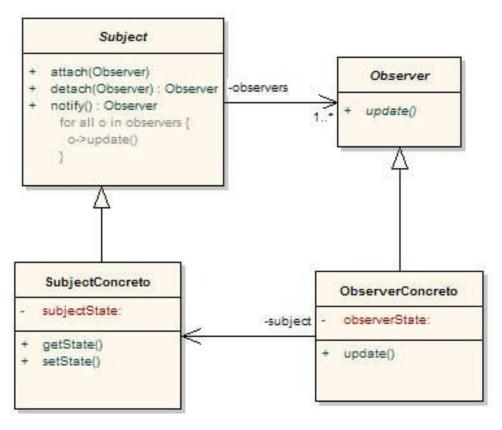
## **Observer**

#### The Observer Pattern





## **Observer**





# PDDCO Observer DEMO



## PDDE Observer CONSECUENCIAS

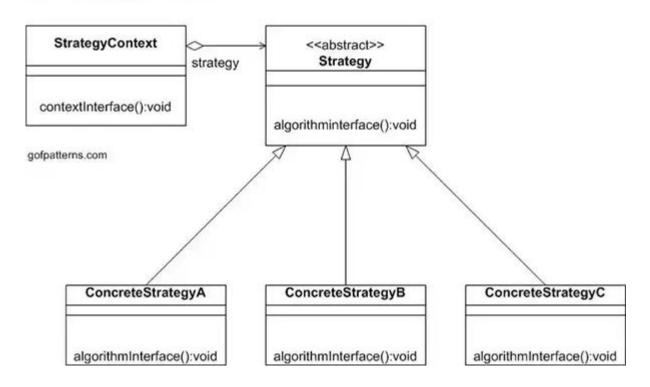


# Strategy

### **PDDE**

## **Strategy**

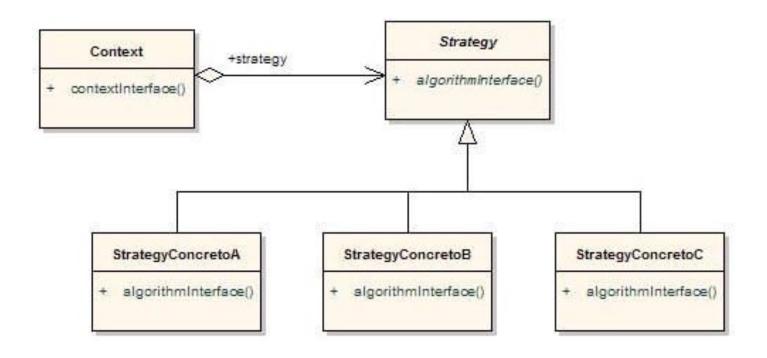
#### The Strategy Pattern





### **PDDE**

## **Strategy**





## PDDC0 Strategy DEMO



## PDDE Strategy CONSECUENCIAS

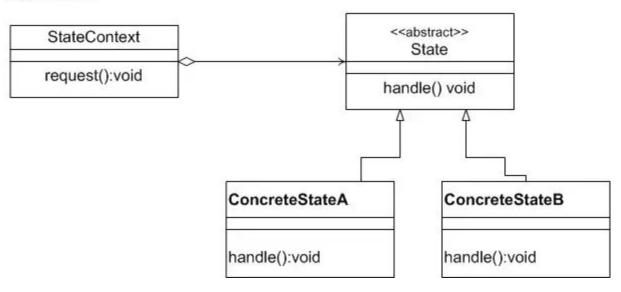


# State

## **State**

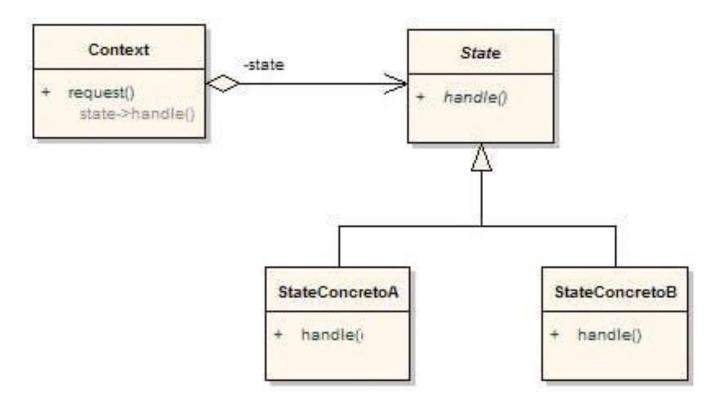
#### The State Pattern

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## **State**





# PDDCO State DEMO



## PDDE State CONSECUENCIAS

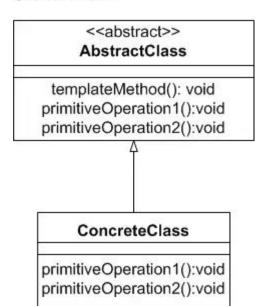


# **Template Method**

## **Template Method**

The Template pattern

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## **Template Method**

# AbstractClass + operation1() + operation2() + templateMethod() ... operation2() ...

#### ConcreteClass

- + PrimitiveOperation1()
- + PrimitiveOperation2()



# PDDC0 Template Method DEMO



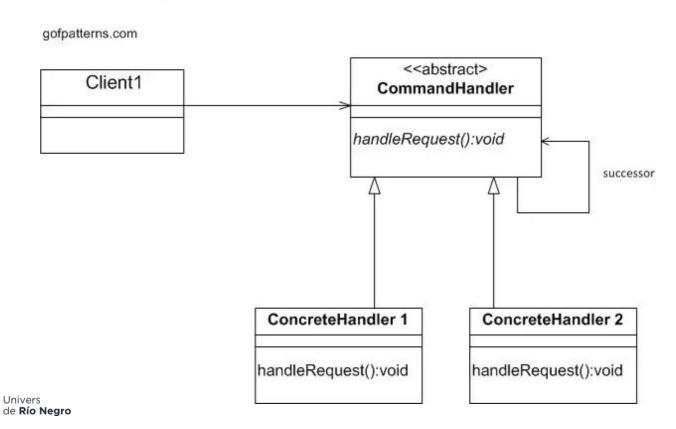
# PDDCO Template Method CONSECUENCIAS



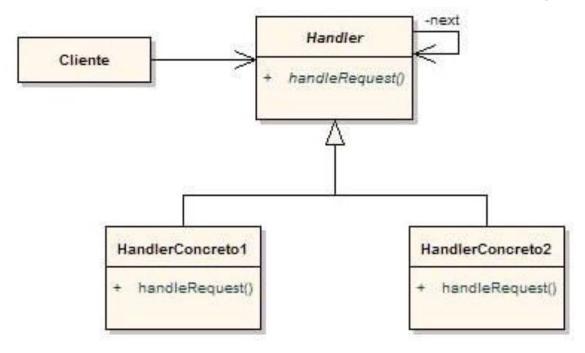
# Chain of Responsability

## **Chain of Responsability**

The Chain of Responsibility Pattern



## **Chain of Responsability**





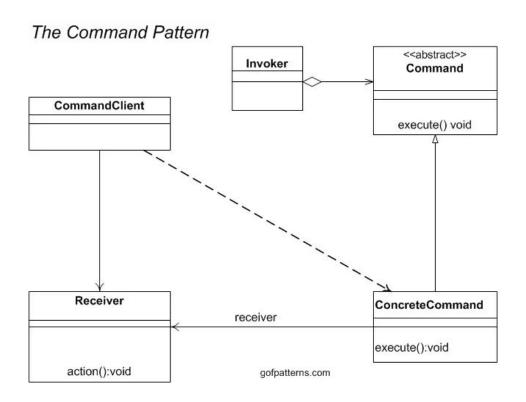
# PDDC0 Chain of Responsability DEMO



# PDDC0 Chain of Responsability CONSECUENCIAS

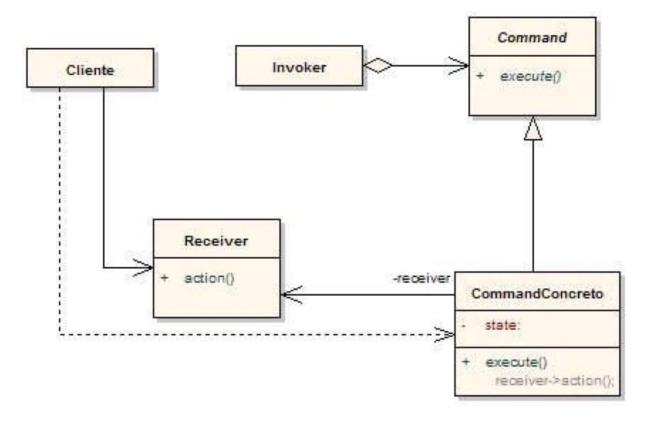
## Command

## **Command**





## **Command**





# PDDCO Command DEMO



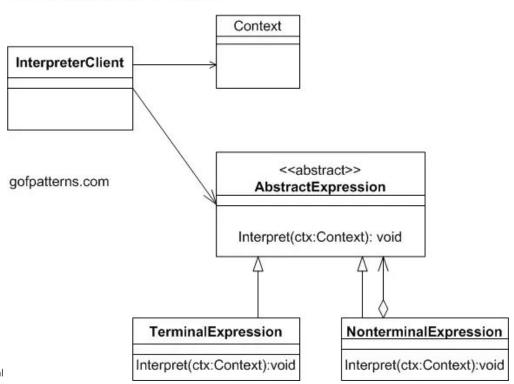
# PDDCO Command CONSECUENCIAS



# Interpreter

## Interpreter

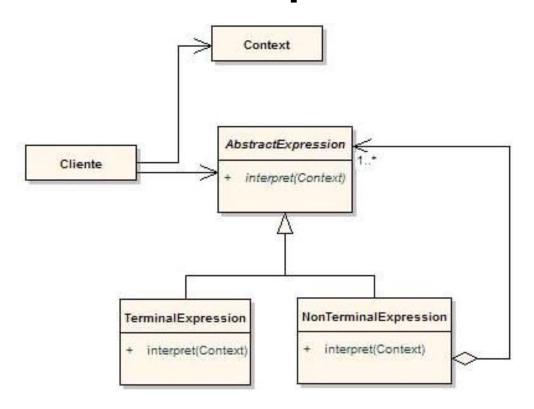
#### The Interpreter Pattern





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## Interpreter





# PDDCO Interpreter DEMO



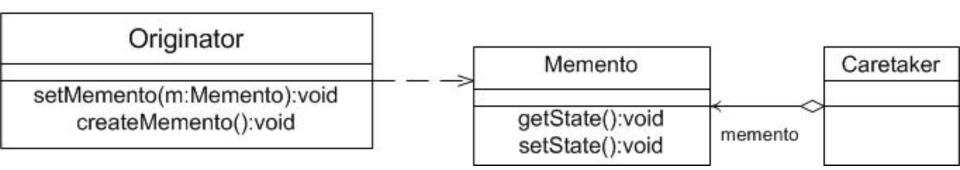
# PDDCO Interpreter CONSECUENCIAS



## Memento

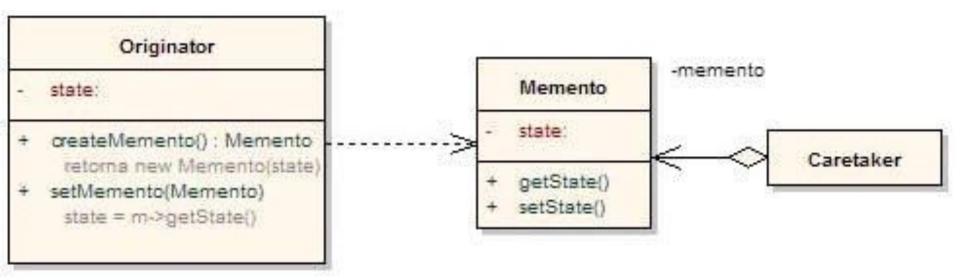
## **Memento**

## The Memento pattern





## **Memento**





# PDDCO Memento DEMO



# PDDCO Memento CONSECUENCIAS





## **Visitor**



## **Visitor**



## PDDCO Visitor DEMO



# PDDCO Visitor CONSECUENCIAS



