### **Creational Design Patterns**

Prototype: To create new objects by copying an existing object.

**Singleton**: To ensure an object has only a single instance.

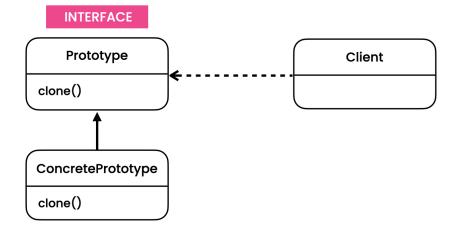
Factory: Allows deferring the creation of an object to subclasses.

**Abstract Factory**: Provides an interface for creating families of related objects.

**Builder**: Allows separating the construction of an object from its representation so the same construction algorithm can be applied to different representations.

## Prototype Pattern

Allows creating new objects by copying an existing object.



# Singleton Pattern

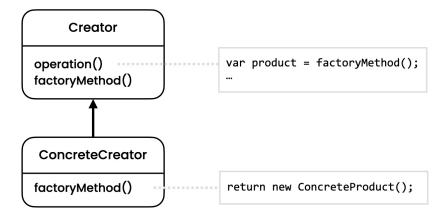
To ensure an object has only a single instance.

#### Singleton

- <u>instance</u>: Singleton
- -Singleton() getInstance()

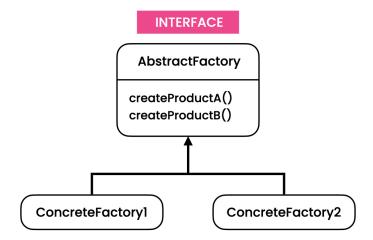
## **Factory Pattern**

Allows deferring the creation of an object to subclasses.



## **Abstract Factory Pattern**

Provides an interface for creating families of related objects.



### **Builder Pattern**

Allows separating the construction of an object from its representation so the same construction algorithm can be applied to different representations.

