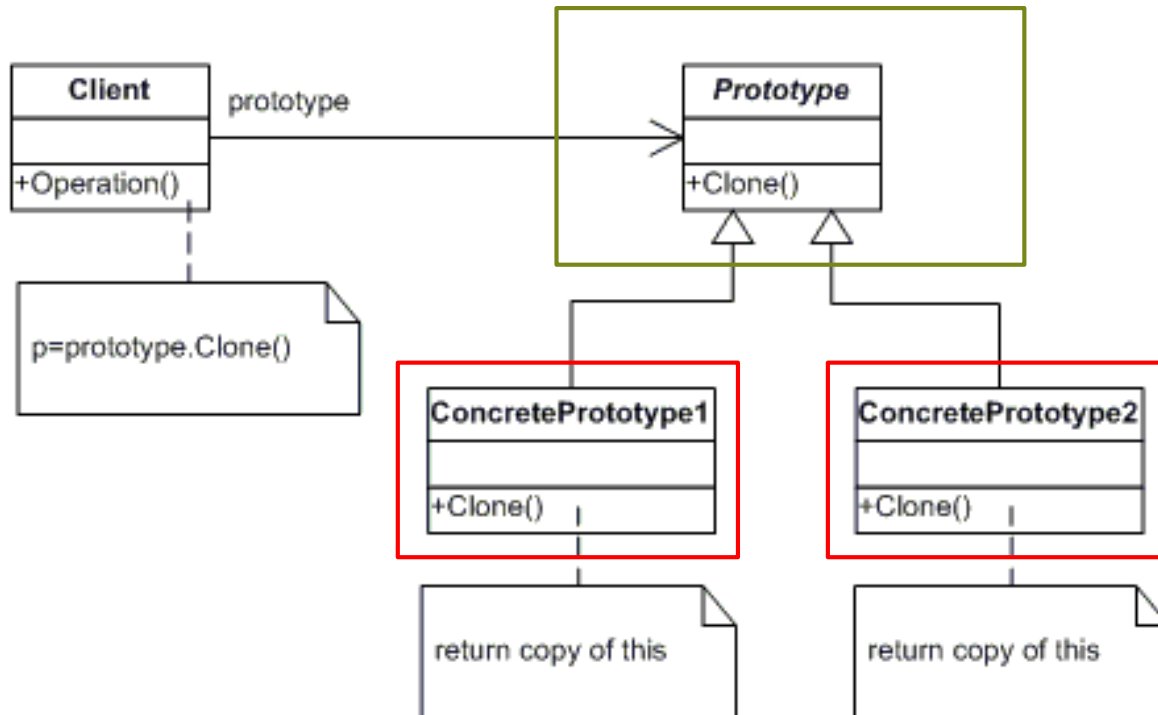


C# 프로토타입 패턴

프로토타입 패턴

- 생성할 객체들의 타입이 프로토타입인 인스턴스로부터 결정되도록 하며, 새 객체를 만들기 위해 자기 자신을 복제한다.
- 객체를 생성하는 작업이 매우 클 경우 사용한다.

프로토타입 패턴의 구현



```
abstract class Prototype
{
    private string _id;

    public Prototype(string id)
    {
        this._id = id;
    }

    public string Id
    {
        get { return _id; }
    }

    public abstract Prototype Clone();
}
```

```
class ConcretePrototype1 : Prototype
{
    public ConcretePrototype1(string id) : base(id)
    {
    }

    public override Prototype Clone()
    {
        return (Prototype)this.MemberwiseClone();
    }
}
```

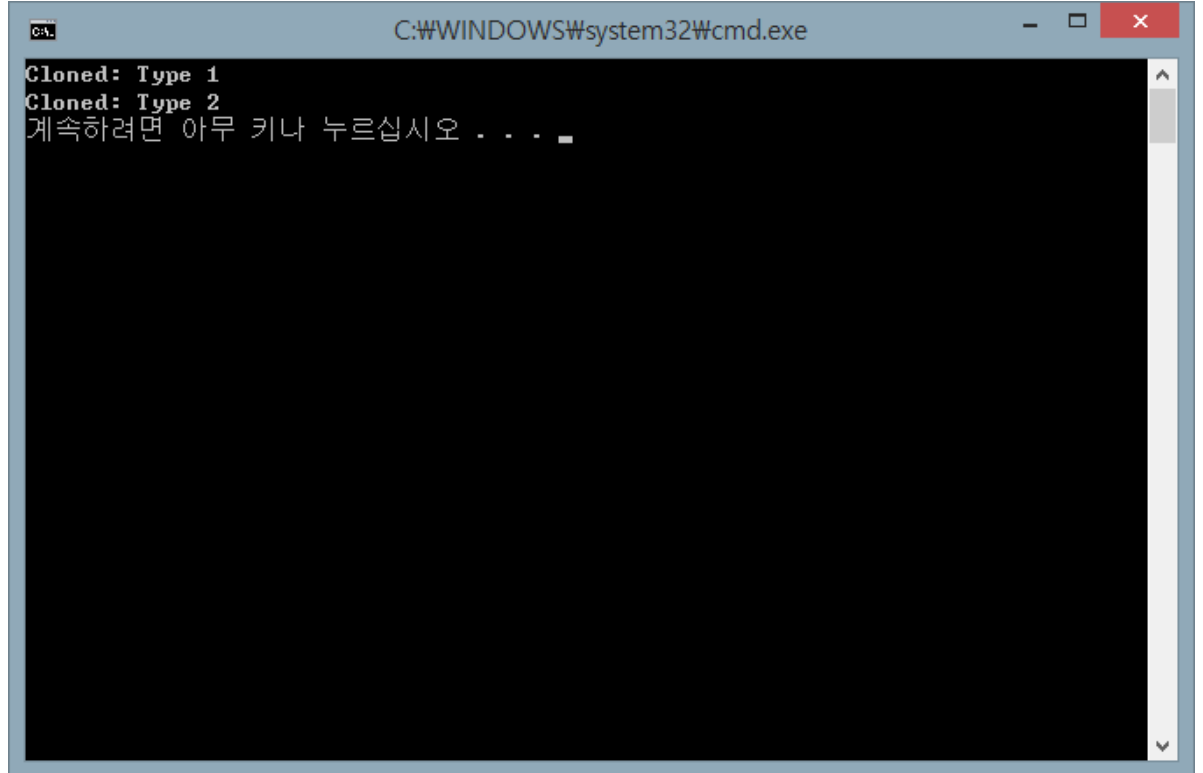
```
class ConcretePrototype2 : Prototype
{
    public ConcretePrototype2(string id) : base(id)
    {
    }

    public override Prototype Clone()
    {
        return (Prototype)this.MemberwiseClone();
    }
}
```

프로토타입 패턴의 구현

```
class Program
{
    static void Main(string[] args)
    {
        ConcretePrototype1 p1 = new ConcretePrototype1("Type 1");
        ConcretePrototype1 c1 = (ConcretePrototype1)p1.Clone();
        Console.WriteLine("Cloned: {0}", c1.Id);

        ConcretePrototype2 p2 = new ConcretePrototype2("Type 2");
        ConcretePrototype2 c2 = (ConcretePrototype2)p2.Clone();
        Console.WriteLine("Cloned: {0}", c2.Id);
    }
}
```



The screenshot shows a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The output of the program is displayed as follows:

```
Cloned: Type 1
Cloned: Type 2
계속하려면 아무 키나 누르십시오 . . .
```