



Design Patterns - Proxy Pattern

Advertisements



[⬅ Previous Page](#)

[Next Page ➡](#)

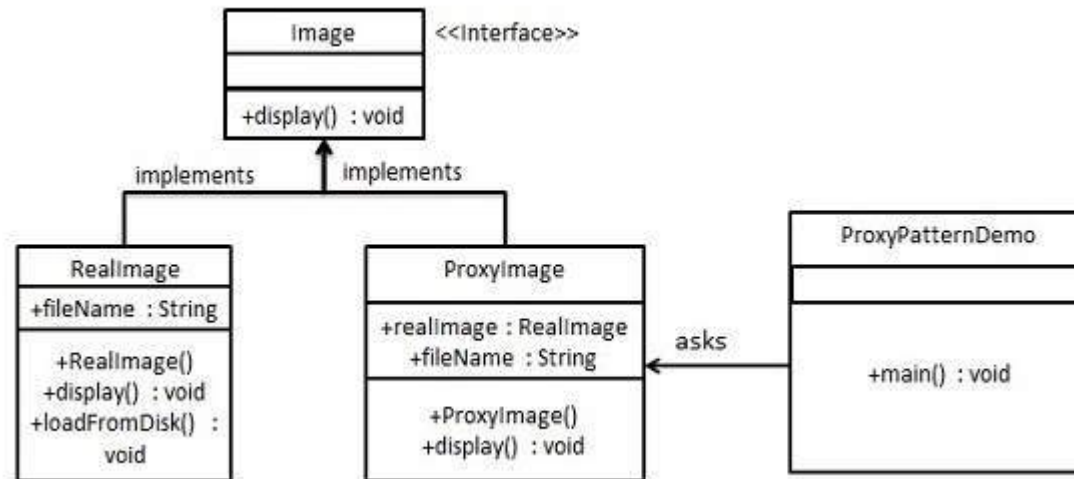
In proxy pattern, a class represents functionality of another class. This type of design pattern comes under structural pattern.

In proxy pattern, we create object having original object to interface its functionality to outer world.

Implementation

We are going to create an *Image* interface and concrete classes implementing the *Image* interface. *ProxyImage* is a a proxy class to reduce memory footprint of *RealImage* object loading.

ProxyPatternDemo, our demo class, will use *ProxyImage* to get an *Image* object to load and display as it needs.



Step 1

Create an interface.

Image.java

```
public interface Image {
    void display();
}
```

Step 2

Create concrete classes implementing the same interface.

RealImage.java

```
public class RealImage implements Image {

    private String fileName;

    public RealImage(String fileName){
        this.fileName = fileName;
        loadFromDisk(fileName);
    }
}
```

```
@Override
public void display() {
    System.out.println("Displaying " + fileName);
}

private void loadFromDisk(String fileName){
    System.out.println("Loading " + fileName);
}
}
```

ProxyImage.java

```
public class ProxyImage implements Image{

    private RealImage realImage;
    private String fileName;

    public ProxyImage(String fileName){
        this.fileName = fileName;
    }

    @Override
    public void display() {
        if(realImage == null){
            realImage = new RealImage(fileName);
        }
        realImage.display();
    }
}
```

Step 3

Use the *ProxyImage* to get object of *RealImage* class when required.

ProxyPatternDemo.java

```
public class ProxyPatternDemo {

    public static void main(String[] args) {
        Image image = new ProxyImage("test_10mb.jpg");

        //image will be loaded from disk
        image.display();
    }
}
```

```
System.out.println("");  
  
//image will not be loaded from disk  
image.display();  
}  
}
```

Step 4

Verify the output.

```
Loading test_10mb.jpg  
Displaying test_10mb.jpg  
  
Displaying test_10mb.jpg
```

[⬅ Previous Page](#)

[Next Page ➡](#)

Advertisements

فيلا للبيع في الشيخ زايد	شقة للبيع في مدينة نصر	مدينة القاهرة الجديدة
EGP 420,000	EGP 500,000	EGP 170
فيلا للبيع في مدينة القاهرة الجديدة	شقة للبيع في حدائق الاهرام	مدينة القاهرة الجديدة
EGP 17,000,000	EGP 760,000	EGP 3,75



[Privacy Policy](#) [Cookies Policy](#) [Contact](#)

© Copyright 2019. All Rights Reserved.

Enter email for newsletter