Design Pattern from CoreJava:
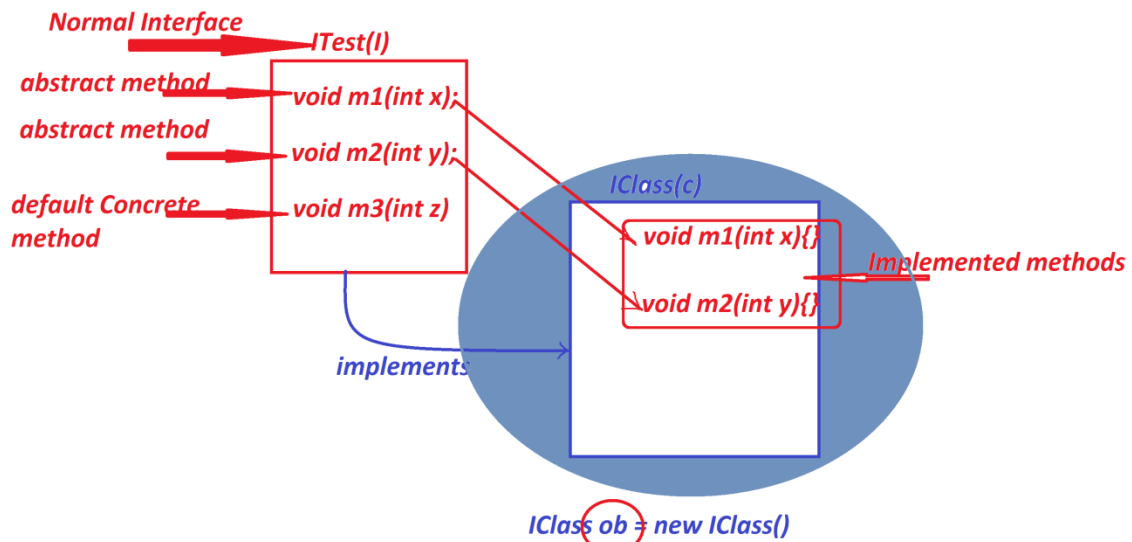
Diagram:

ProjectName : Design_Model_1_CoreJava

test : ITest.java

```java
package test;
public interface ITest
{
    public abstract void m1(int x);
    public abstract void m2(int y);
    public default void m3(int z)
    {
        System.out.println("-----default concrete m3(z)----");
        System.out.println("The value z:"+z);
    }
}
```

test : IClass.java

```java
package test;
public class IClass implements ITest
{
    public void m1(int x)
    {
        System.out.println("-----Implemented method m1(x)-----");
        System.out.println("The value x:"+x);
    }
    public void m2(int y)
    {
        System.out.println("-----Implemented method m2(y)-----");
        System.out.println("The value y:"+y);
    }
}
```

test : DemoModel1.java(MainClass)

```java
package test;
import java.util.*;
public class DemoModel1
{
    public static void main(String[] args)
    {
        Scanner s = new Scanner(System.in);//Scanner Object connected to
Console Input
        try(s;){
            System.out.println("Enter the value for x:");
            int x = s.nextInt();
            System.out.println("Enter the value for y:");
            int y = s.nextInt();
            System.out.println("Enter the value for z:");
            int z = s.nextInt();
            IClass ob = new IClass(); //Implementation Object
            ob.m1(x);
            ob.m2(y);
            ob.m3(z);
        }catch(Exception e) {
            e.printStackTrace();
        }
    }
}
```

o/p:

Enter the value for x:

12

Enter the value for y:

21

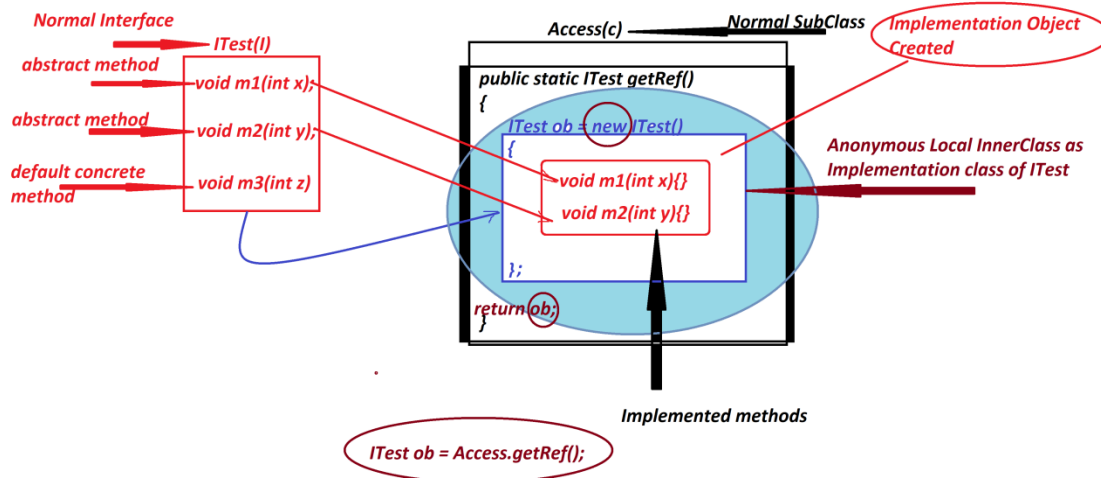*Enter the value for z:*

23

-----Implemented method m1(x)-----

The value x:12

-----Implemented method m2(y)-----

The value y:21

-----default concrete m3(z)----

The value z:23

Diagram:

ProjectName : Design_Model_2_CoreJava

test : ITest.java

```
package test;
```

```java
public interface ITest
{
   public abstract void m1(int x);
   public abstract void m2(int y);
   public default void m3(int z)
   {
        System.out.println("-----default concrete m3(z)-----");
        System.out.println("The value z:"+z);
   }
}
```

test : Access.java

```java
package test;
public class Access
{
   public static ITest getRef()
   {
        ITest ob = new ITest()
        {
            @Override
            public void m1(int x)
            {
                System.out.println("-----Implemented method
m1(x)-----");
                System.out.println("The value x:"+x);
            }
            @Override
            public void m2(int y)
            {
                System.out.println("-----Implemented method
m2(y)-----");
                System.out.println("The value y:"+y);
            }
        };
        return ob;
   }//OuterClass static method
}//OuterClass
```

test : DemoModel2.java(MainClass)

```java
package test;
import java.util.*;
public class DemoModel2 {
     public static void main(String[] args) {
       Scanner s = new Scanner(System.in);
       try(s;){
         System.out.println("Enter the value for x:");
```

```
            int x = s.nextInt();
            System.out.println("Enter the value for y:");
            int y = s.nextInt();
            System.out.println("Enter the value for z:");
            int z = s.nextInt();

            ITest ob = Access.getRef();//Implementation Object
            ob.m1(x);
            ob.m2(y);
            ob.m3(z);
        }catch(Exception e) {
            e.printStackTrace();
        }
    }
}
```

o/p:

Enter the value for x:

21

Enter the value for y:

22

Enter the value for z:

23

-----Implemented method m1(x)-----

The value x:21

-----Implemented method m2(y)-----

The value y:22

-----default concrete m3(z)-----

The value z:23