

```
Shape.java

1 public interface Shape {
2     void draw();
3 }
```

```
Rectangle.java

1 public class Rectangle implements Shape {
2     @Override
3     public void draw()
4     {
5         System.out.println("Inside Rectangle::draw() method.");
6     }
7 }
```

```
Circle.java

1 public class Circle implements Shape {
2     @Override
3     public void draw()
4     {
5         System.out.println("Inside Circle::draw() method.");
6     }
7 }
```

```
Square.java

1 public class Square implements Shape {
2     @Override
3     public void draw()
4     {
5         System.out.println("Inside Square::draw() method.");
6     }
7 }
```

```
FactoryPatternDemo.java

1 public class FactoryPatternDemo {
2     public static void main(String[] args)
3     {
4         ShapeFactory shapeFactory = new ShapeFactory();
5         Shape shape1 = shapeFactory.getShape("Circle");
6         shape1.draw();
7         Shape shape2 = shapeFactory.getShape("Rectangle");
8         shape2.draw();
9         Shape shape3 = shapeFactory.getShape("Square");
10        shape3.draw();
11    }
12 }
```

```

ShapeFactory.java
1 public class ShapeFactory {
2     public Shape getShape(String shapeType)
3     {
4         if(shapeType == null)
5         {
6             return null;
7         }
8         if(shapeType.equalsIgnoreCase("Circle"))
9         {
10            return new Circle();
11        }
12        if(shapeType.equalsIgnoreCase("Rectangle"))
13        {
14            return new Rectangle();
15        }
16        if(shapeType.equalsIgnoreCase("Square"))
17        {
18            return new Square();
19        }
20        return null;
21    }
22 }

```

UML

