

Abstract Factory

```
public interface Shape {
    public void draw();
}
public class Circle implements Shape {
    @Override
    public void draw() {
        System.out.println("Inside Circle::draw() method.");
    }
}
public class Rectangle implements Shape {
    @Override
    public void draw() {
        System.out.println("Inside Rectangle::draw() method.");
    }
}
public class Square implements Shape {
    @Override
    public void draw() {
        System.out.println("Inside Square::draw() method.");
    }
}
public abstract class ShapeAbstractFactory {
    public abstract Shape createShape(String shapeType);
}
public class ShapeConcreteAbstractFactory extends ShapeAbstractFactory {
    @Override
    public Shape createShape(String shapeType) {
        if(shapeType == null) {
            return null;
        }
        if(shapeType.equals("circle")) {
            return new Circle();
        } else if(shapeType.equals("square")) {
            return new Square();
        } else if(shapeType.equals("rectangle")) {
            return new Rectangle();
        }
        return null;
    }
}
public class Main {
    public static void main(String[] args) {
        new Main().go();
    }
    void go() {
        ShapeAbstractFactory shapeFactory = new ShapeConcreteAbstractFactory();

        Shape shape1 = shapeFactory.createShape("circle");
        shape1.draw();

        Shape shape2 = shapeFactory.createShape("square");
        shape2.draw();

        Shape shape3 = shapeFactory.createShape("rectangle");
        shape3.draw();
    }
}
```