

Пример шаблона ФАСАД

Приведенный ниже пример обеспечивает единый интерфейс для классов простых геометрических фигур. В каждом таком классе имеется два метода `draw()` и `areaCalc()`.

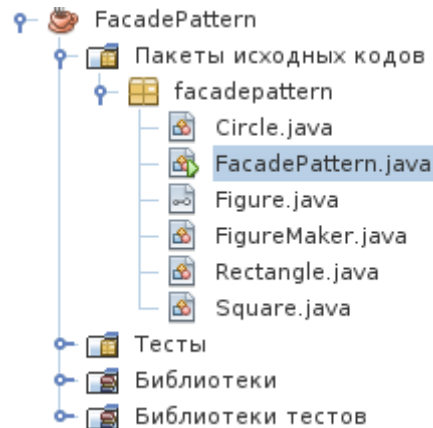


Рис.1. Структура проекта facadepattern в IDE NetBeans

FacadePattern.java

```
package facadepattern;

/**
 * @author gorbenko
 */
public class FacadePattern {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {

        FigureMaker figureMaker = new FigureMaker();

        figureMaker.drawCircle();
        System.out.println("Площадь круга = "+figureMaker.areaCircle(2));
        figureMaker.drawRectangle();
        System.out.println("Площадь прямоугольника = "+figureMaker.areaRectangle(2,4));
        figureMaker.drawSquare();
        System.out.println("Площадь квадрата = "+figureMaker.areaSquare(3));
    }
}
```

FigureMaker.java

```
package facadepattern;

/**
 * @author gorbenko
```

```

*/
public class FigureMaker {
    private Figure circle;
    private Figure rectangle;
    private Figure square;

    public FigureMaker() {
        circle = new Circle();
        rectangle = new Rectangle();
        square = new Square();
    }

    public void drawCircle(){
        circle.draw();
    }
    public double areaCircle(double R){
        double[] params=new double[1];
        params[0]=R;
        return circle.areaCalc(params);
    }
    public void drawRectangle(){
        rectangle.draw();
    }
    public double areaRectangle(double A,double B){
        double[] params=new double[2];
        params[0]=A;
        params[1]=B;
        return rectangle.areaCalc(params);
    }
    public void drawSquare(){
        square.draw();
    }
    public double areaSquare(double A){
        double[] params=new double[1];
        params[0]=A;
        return square.areaCalc(params);
    }
}

```

Figure.java

```

package facadepattern;

/**
 * @author gorbenko
 */
public interface Figure {
    void draw();
    double areaCalc(double[] params);
}

```

Circle.java

```
package facadepattern;

/**
 * @author gorbenko
 */
public class Circle implements Figure{
    @Override
    public void draw(){
        System.out.println("Circle::draw()");
    }

    /**
     * @param params
     * @return
     */
    @Override
    public double areaCalc(double[] params){
        double area;
        area=3.14*params[0]*params[0];
        return area;
    }
}
```

Rectangle.java

```
package facadepattern;

/**
 * @author gorbenko
 */
public class Rectangle implements Figure{
    @Override
    public void draw(){
        System.out.println("Rectangle::draw()");
    }

    /**
     * @param params
     * @return
     */
    @Override
    public double areaCalc(double[] params){
        double area;
        area=params[0]*params[1];
        return area;
    }
}
```

Square.java

```
package facadepattern;

/**
 * @author gorbenko
 */
public class Square implements Figure{
    @Override
    public void draw(){
        System.out.println("Square::draw()");
    }

    /**
     * @param params
     * @return
     */
    @Override
    public double areaCalc(double[] params){
        double area;
        area=params[0]*params[0];
        return area;
    }
}
```