

```
1  import edu.fcps.Turtle;
2  import java.awt.Color;
3  import javax.swing.*;
4  import java.lang.*;
5  /**
6   * Driver09 creates a JFrame and draws a square, octagon, flower, and spi
7   * This is an example of polymorphism because all the classes used to dra
8   * w extend and override methods in abstract class Turtle
9   *
10   * @author Nathan Chen
11   * @author Benjamin Tu
12   * @version 10-15-18
13   * @period 2
14   * @teacher Coglianese
15   */
16  public class Driver09
17  {
18      /**
19       * Main is the main method called when is called to run
20       */
21      public static void main(String[] args)
22      {
23          JFrame frame = new JFrame("Lab09");
24          frame.setSize(800, 800);
25          frame.setLocation(200, 100);
26          frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
27          frame.setContentPane(new TurtlePanel());
28          frame.setVisible(true);
29          frame.getContentPane().setBackground(Color.WHITE);
30
31          SquareTurtle s = new SquareTurtle();
32          PolygonTurtle p = new PolygonTurtle(10.0,8);
33          FlowerTurtle f = new FlowerTurtle();
34          TwistyTurtle t = new TwistyTurtle();
35          TwistyTurtle2 tt = new TwistyTurtle2();
36          TwistyTurtle3 ttt = new TwistyTurtle3();
37
38          twisties(s);
39          twisties(p);
40          twisties(f);
41          twisties(t);
42          twisties(tt);
43          twisties(ttt);
44      }
45      /**
46       * Twisties takes a Turtle and moves it somewhere random before runni
47       * ng it in a thread
```

```
47      */
48      public static void twisties(Turtle arg)
49      {
50          arg.setPenDown(false);
51          arg.turnRight((int)(Math.random() * 360));
52          arg.forward((int)(Math.random() * 200));
53          arg.setPenDown(true);
54          (new Thread((Runnable)arg)).start();
55      }
56  }
```