Experiment No. 8

Write a Java program to draw Smiley face and Indian Flag using graphics class.

```java
import java.awt.*;

public class smile extends Frame {

    @Override

    public void paint(Graphics g) {

        g.setColor(Color.YELLOW);

        g.fillOval(50, 50, 200, 200);

        g.setColor(Color.BLACK);

        g.fillOval(90, 110, 30, 30);

        g.fillOval(180, 110, 30, 30);

        g.drawArc(100, 150, 100, 60, 0, -180);

    }

    public static void main(String[] args) {

        smile f = new smile();

        f.setSize(300, 350);

        f.setTitle("Simple Smiley Face");

        f.setVisible(true);

        f.addWindowListener(new java.awt.event.WindowAdapter() {

            public void windowClosing(java.awt.event.WindowEvent e) {

                System.exit(0);

            }

        });

    }

}
```

Experiment No. 8

Write a Java program to draw Smiley face and Indian Flag using graphics class.

```java
1   import java.awt.*;
2
3   public class Indian_Flag extends Frame {
4
5       private final Color SAFFRON = new Color(255, 153, 51); // Approximate Saffron (Kesari)
6
7       private final Color INDIA_GREEN = new Color(19, 136, 8); // Approximate India Green
8
9       @Override
10
11      public void paint(Graphics g) {
12
13          g.setColor(SAFFRON);
14
15          g.fillRect(50, 50, 450, 100);
16
17          g.setColor(Color.WHITE);
18
19          g.fillRect(50, 150, 450, 100);
20
21          g.setColor(INDIA_GREEN);
22
23          g.fillRect(50, 250, 450, 100);
24
25          int centerX = 275;
26
27          int centerY = 200;
28
29          int radius = 40;
30
31          g.setColor(new Color(0, 0, 128));
32
33          g.drawOval(centerX - radius, centerY - radius, 2 * radius, 2 * radius);
34
35          for (int i = 0; i < 24; i++) {
36
37              double angle = Math.toRadians(i * 15);
38
39              int x2 = (int) (centerX + radius * Math.cos(angle));
40
41              int y2 = (int) (centerY + radius * Math.sin(angle));
42
43              g.drawLine(centerX, centerY, x2, y2);
44
45          }
46
47      }
48
49
50      public static void main(String[] args) {
51
52          Indian_Flag f = new Indian_Flag();
53
54          f.setSize(550, 400);
55
56          f.setTitle("Indian National Flag");
57
58          f.setVisible(true);
59
60          f.addWindowListener(new java.awt.event.WindowAdapter() {
61
62              public void windowClosing(java.awt.event.WindowEvent e) {
63
64                  System.exit(0);
65
66              }
67
68          });
69
70      }
71
72  }
```

Indian National Flag

Simple Smiley Face