

### **Practical 12:**

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

1)smiley face

```
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);
            }
        });
    }
}
```

2)Indian Flag

```
import java.awt.*;
public class Indian_Flag extends Frame {
    private final Color SAFFRON = new Color(255, 153, 51); // Approximate Saffron (Kesari)
    private final Color INDIA_GREEN = new Color(19, 136, 8); // Approximate India Green
```

```
@Override
public void paint(Graphics g) {
    g.setColor(SAFFRON);
    g.fillRect(50, 50, 450, 100);
    g.setColor(Color.WHITE);
    g.fillRect(50, 150, 450, 100);
    g.setColor(INDIA_GREEN);
    g.fillRect(50, 250, 450, 100);
    int centerX = 275;
    int centerY = 200;
    int radius = 40;
    g.setColor(new Color(0, 0, 128));
    g.drawOval(centerX - radius, centerY - radius, 2 * radius, 2 * radius);
    for (int i = 0; i < 24; i++) {
        double angle = Math.toRadians(i * 15);
        int x2 = (int) (centerX + radius * Math.cos(angle));
        int y2 = (int) (centerY + radius * Math.sin(angle));
        g.drawLine(centerX, centerY, x2, y2);
    }
}
public static void main(String[] args) {
    Indian_Flag f = new Indian_Flag();
    f.setSize(550, 400);
    f.setTitle("Indian National Flag");
    f.setVisible(true);
    f.addWindowListener(new java.awt.event.WindowAdapter() {
        public void windowClosing(java.awt.event.WindowEvent e) {
            System.exit(0);
        }
    });
}
```