

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);
        }
    });
}}
```