Week 9:

a. Develop a Java application for the blinking eyes and mouth should open while blinking.

AIM: Java application for the blinking eyes and mouth should open while blinking

SOURCE CODE:

```
import java.applet.Applet;
//<applet code="A.class" width=200 height=200></applet>
import java.awt.BorderLayout;
import java.awt.Canvas;
import java.awt.Color;
import java.awt.Graphics;
public class A extends Applet {
 private static final long serialVersionUID = -11522783627965736 63L;
 public class MyCanvas extends Canvas {
 private static final long serialVersionUID = -43727590742204203 33L;
 private int flag = 0;
 public void paint(Graphics g) {
draw();
 }
 public void draw() {
 Graphics g = this.getGraphics();
 g.setColor(Color.BLACK);
 super.paint(g);
```

```
if (flag == 0) {
System.out.println(flag);
g.drawOval(40, 40, 120, 150);// face
g.drawRect(57, 75, 30, 5);// left eye shut
g.drawRect(110, 75, 30, 20);// right eye
g.drawOval(85, 100, 30, 30);// nose
g.fillArc(60, 125, 80, 40, 180, 180);// mouth
g.drawOval(25, 92, 15, 30);// left ear
g.drawOval(160, 92, 15, 30);// right ear
flag = 1;
} else {
System.out.println(flag);
g.drawOval(40, 40, 120, 150);// face
g.drawOval(57, 75, 30, 20);// left eye
g.drawOval(110, 75, 30, 20);// right eye
g.fillOval(68, 81, 10, 10);// left pupil
g.fillOval(121, 81, 10, 10);// right pupil
g.drawOval(85, 100, 30, 30);// nose
g.fillArc(60, 125, 80, 40, 180, 180);// mouth
g.drawOval(25, 92, 15, 30);// left ear
g.drawOval(160, 92, 15, 30);// right ear
flag = 0;
}
```

```
try {
Thread.sleep(900);
} catch (Exception e) {
System.out.println("killed while sleeping");
}
this.repaint(100);
}
}
public void init() {
this.C = new MyCanvas();
this.setLayout(new BorderLayout());
this.add(C, BorderLayout.CENTER);
C.setBackground(Color.GRAY);
}
private MyCanvas C;
}
```

b. **Develop a Java application that simulates a traffic light. The program lets the user select one of three lights: Red, Yellow or Green with radio buttons. On selecting a button an appropriate message with—STOP or—READY or GO should appear above the buttons in selected color. Initially, there is no message show.**

AIM: Develop a Java application that simulates a traffic light. The program lets the user select one of three lights: Red, Yellow or Green with radio buttons. On selecting a button an appropriate message with—STOP ‖or—READY ‖or‖ GO ‖should appear above the buttons in selected color. Initially, there is no message show.

SOURCE CODE:

```
import java.applet.Applet;

import java.awt.*;

import java.awt.event.*;

/*

* <applet code = "TrafficLightsExample" width = 1000 height = 500>

* </applet>

* */

public class TrafficLightsExample extends Applet implements ItemListener{

CheckboxGroup grp = new CheckboxGroup();

Checkbox redLight, yellowLight, greenLight;

Label msg;

public void init(){

redLight = new Checkbox("Red", grp, false);

yellowLight = new Checkbox("Yellow", grp, false);
```

```
greenLight = new Checkbox("Green", grp, false);
msg = new Label("");
redLight.addItemListener(this);
yellowLight.addItemListener(this);
greenLight.addItemListener(this);
add(redLight);
add(yellowLight);
add(greenLight);
add(msg);
msg.setFont(new Font("Serif", Font.BOLD, 20));
}
public void itemStateChanged(ItemEvent ie) {
redLight.setForeground(Color.BLACK);
yellowLight.setForeground(Color.BLACK);
greenLight.setForeground(Color.BLACK);
if(redLight.getState() == true) {
redLight.setForeground(Color.RED);
msg.setForeground(Color.RED);
msg.setText("STOP");
}
else if(yellowLight.getState() == true) {
yellowLight.setForeground(Color.YELLOW);
msg.setForeground(Color.YELLOW);
```

```
msg.setText("READY");
}
else{
greenLight.setForeground(Color.GREEN);
msg.setForeground(Color.GREEN);
msg.setText("GO");
}
}
}
```