UNIT-5

1) Write a Java program that handles all mouse events and shows the event name at the centre of the window when a mouse event is fired. (Use adapter classes).

**Program:**

**import java.awt.\*;**

**import java.applet.\*;**

**import java.awt.event.\*;**

**/\*<applet code="MouseDemo" width=300 height=300>**

**</applet>\*/**

**public class MouseDemo extends Applet implements MouseListener,MouseMotionListener**

**{**

**int mx=0;**

**int my=0;**

**String msg="";**

**public void init()**

**{**

**addMouseListener(this);**

**addMouseMotionListener(this);**

**}**

**public void mouseClicked(MouseEvent me)**

**{**

**mx=20;**

**my=40;**

**msg="Mouse Clicked";**

**repaint();**

**}**

**public void mousePressed(MouseEvent me)**

**{**

**mx=30;**

**my=60;**

**msg="Mouse Pressed";**

**repaint();**

**}**

**public void mouseReleased(MouseEvent me)**

**{**

**mx=30;**

**my=60;**

**msg="Mouse Released";**

**repaint();**

**}**

**public void mouseEntered(MouseEvent me)**

**{**

**mx=40;**

**my=80;**

**msg="Mouse Entered";**

**repaint();**

**}**

**public void mouseExited(MouseEvent me)**

**{**

**mx=40;**

**my=80;**

**msg="Mouse Exited";**

**repaint();**

**}**

**public void mouseDragged(MouseEvent me)**

**{**

**mx=me.getX();**

**my=me.getY();**

**showStatus("Currently mouse dragged"+mx+" "+my);**

**repaint(); }**

**public void mouseMoved(MouseEvent me)**

**{**

**mx=me.getX();**

**my=me.getY();**

**showStatus("Currently mouse is at"+mx+" "+my);**

**repaint();**

**}**

**public void paint(Graphics g)**

**{**

**g.drawString("Handling Mouse Events",30,20);**

**g.drawString(msg,60,40);**

**}**

**}**

**2)** Write a java program that Develop an applet that receives an integer in one text field, and computes its factorial Value and returns it in another text field, when the button named “Compute” is clicked ?

**Program:**

**import java.awt.\*;**

**import java.lang.String;**

**import java.awt.event.\*;**

**import java.applet.Applet;**

**/\*<applet code="Fact.class" width="300" height="300">**

**</applet>\*/**

**public class Fact extends Applet implements ActionListener**

**{**

**String str;**

**Button b0;**

**TextField t1,t2;**

**Label l1;**

**public void init()**

**{**

**Panel p=new Panel();**

**p.setLayout(new GridLayout());**

**add(new Label("Enter any Integer value"));**

**add(t1=new TextField(20));**

**add(new Label("Factorial value is: "));**

**add(t2=new TextField(20));**

**add(b0=new Button("compute"));**

**b0.addActionListener(this);**

**}**

**public void actionPerformed(ActionEvent e)**

**{**

**int i,n,f=1;**

**n=Integer.parseInt(t1.getText());**

**for(i=1;i<=n;i++)**

**f=f\*i;**

**t2.setText(String.valueOf(f));**

**repaint();**

**}**

**}**

**3)**Write a java program to simulate a traffic light. The program lets the user select one of the three lights: red, yellow or green. On selecting a button, an appropriate message with ”Stop” or “Ready” or “ Go” should appear above the buttons selected colour.?(using applets)

**Program:**

**import java.applet.\*;**

**import java.awt.\*;**

**import java.awt.event.\*;**

**/\*<applet code="Signals" width=400 height=250></applet>\*/**

**public class Signals extends Applet implements ItemListener**

**{**

**String msg="";**

**Checkbox stop,ready,go;**

**CheckboxGroup cbg;**

**public void init()**

**{**

**cbg = new CheckboxGroup();**

**stop = new Checkbox("Stop", cbg, false);**

**ready = new Checkbox("Ready", cbg, false);**

**go= new Checkbox("Go", cbg, false);**

**add(stop);**

**add(ready);**

**add(go);**

**stop.addItemListener(this);**

**ready.addItemListener(this);**

**go.addItemListener(this);**

**}**

**public void itemStateChanged(ItemEvent ie)**

**{**

**repaint();**

**}**

**public void paint(Graphics g)**

**{**

**msg=cbg.getSelectedCheckbox().getLabel();**

**g.drawOval(165,40,50,50);**

**g.drawOval(165,100,50,50);**

**g.drawOval(165,160,50,50);**

**if(msg.equals("Stop"))**

**{**

**g.setColor(Color.red);**

**g.fillOval(165,40,50,50);**

**}**

**else if(msg.equals("Ready"))**

**{**

**g.setColor(Color.yellow);**

**g.fillOval(165,100,50,50);**

**}**

**else**

**{**

**g.setColor(Color.green);**

**g.fillOval(165,160,50,50);**

**}**

**}**

**}**