**PRACTICAL-1**

import java.applet.Applet;

import java.awt.\*;

public class Pr1 extends Applet {

Button b1;

Label l1;

Label l2;

Label l3;

Label l4;

Label l5;

Label l6;

TextField f1;

TextField f2;

TextField f3;

TextField f4;

TextField f5;

TextArea a1;

public void init() {

setLayout(null);

setSize(600,400);

setBackground(Color.cyan);

l6=new Label ("Login Page");

l6.setBounds(220,20,100,50);

add(l6);

l1=new Label("Name");

l1.setBounds(20, 60, 70,50);

add(l1);

l2=new Label("Mobile no");

l2.setBounds(20, 100, 60,50);

add(l2);

l3=new Label("Address");

l3.setBounds(20, 140, 60,50);

add(l3);

l4=new Label("Email");

l4.setBounds(20, 240, 60,50);

add(l4);

l5=new Label("Password");

l5.setBounds(20, 280, 60,50);

add(l5);

f1=new TextField("Username");

f1.setBounds(100, 75,120 ,30);

add(f1);

f2=new TextField("Ragistered no");

f2.setBounds(100, 110,120 ,30);

add(f2);

a1=new TextArea("Location ");

a1.setBounds(100, 150,120 ,70);

add(a1);

f3=new TextField("Email ");

f3.setBounds(100, 250,120 ,30);

add(f3);

f4=new TextField("Pass ");

f4.setBounds(100, 290,120 ,30);

f4.setEchoChar('\*');

add(f4);

b1=new Button("SUBMIT ");

b1.setBackground(Color.green);

b1.setBounds(200,350,100,50);

add(b1);

}

}

**PRACTICAL-2**

import java.applet.Applet;

import java.awt.\*;

public class PR2 extends Applet {

Panel p;

Panel p1;

Panel p2;

Label l;

Label l1;

public void init() {

setSize(1000,1000);

setLayout(null);

p=new Panel();

p1=new Panel();

p2=new Panel();

p.setBackground(Color.red);

p.setBounds(10,10,200,300);

add(p);

p1.setBackground(Color.green);

p1.setBounds(220,10,200,300);

add(p1);

p2.setBackground(Color.gray);

p2.setBounds(460,10,200,300);

add(p2);

l=new Label("Select Tal");

l.setBounds(20,40,50 ,80);

p.add(l);

Choice ch= new Choice();

ch.add("Nashik");

p.add(ch);

ch.add("Niphad");

p.add(ch);

ch.add("Dindori");

p.add(ch);

ch.add("Igatpuri");

p.add(ch);

ch.add("Sinner");

p.add(ch);

ch.setBounds(20,50,100,90);

l1=new Label("Select Branch");

l1.setBounds(80,40,200,80);

p1.add(l1);

Choice ch1=new Choice();

ch1.add("Electrical Engineering");

p1.add(ch1);

ch1.add("Mechanical Engineering");

p1.add(ch1);

ch1.add("Computer Technology");

p1.add(ch1);

ch1.add("Information Technology");

p1.add(ch1);

l1=new Label("Select State");

l1.setBounds(460,10,200,80);

p2.add(l1);

List l4=new List();

l4.add("Maharstra");

p2.add(l4);

l4.add("Rajasthan");

p2.add(l4);

l4.add("Panjab");

p2.add(l4);

l4.add("Gujrat");

p2.add(l4);

l4.add("Karnatak");

p2.add(l4);

Panel p4=new Panel();

p4.setBounds(700,10,200,300);

p4.setBackground(Color.gray);

add(p4);

p4.setLayout(null);

p4.setLayout(new GridLayout(3,3,20,20));

p4.add(new Button("1"));

p4.add(new Button("2"));

p4.add(new Button("3"));

p4.add(new Button("4"));

p4.add(new Button("5"));

p4.add(new Button("6"));

p4.add(new Button("7"));

p4.add(new Button("8"));

p4.add(new Button("9"));

}

}

**PRACTICAL-3**

import java.applet.Applet;

import java.awt.\*;

public class pr03 extends Applet {

public void init() {

Frame f=new Frame();

f.setBackground(Color.black);

f.setLayout(null);

Panel p=new Panel();

Panel p1=new Panel();

f.add(p);

f.add(p1);

p.setBackground(Color.white);

p1.setBackground(Color.LIGHT\_GRAY);

p.setBounds(20, 30, 350, 90);

p1.setBounds(20,130,350,500);

TextField a1=new TextField();

p1.setLayout(new GridLayout(5,4,4,4));

p1.add(new Button("Clear")).setBackground(Color.red);

p1.add(new Button("Delete")).setBackground(Color.red);

p1.add(new Button("%")).setBackground(Color.red);

p1.add(new Button("/")).setBackground(Color.red);

p.setLayout(null);

a1.setBounds(10,20,330,55);

p.add(a1);

p1.add(new Button("7"));

p1.add(new Button("8"));

p1.add(new Button("9"));

p1.add(new Button("x")).setBackground(Color.red);

p1.add(new Button("4"));

p1.add(new Button("5"));

p1.add(new Button("6"));

p1.add(new Button("-")).setBackground(Color.red);

p1.add(new Button("1"));

p1.add(new Button("2"));

p1.add(new Button("3"));

p1.add(new Button("+")).setBackground(Color.red);

p1.add(new Button("()"));

p1.add(new Button("0"));

p1.add(new Button("."));

p1.add(new Button("=")).setBackground(Color.GREEN);

f.setVisible(true);

f.setSize(400,600);

add(f);

}

}

**PRACTICAL-4**

import java.applet.Applet;

import java.awt.\*;

import java.awt.event.\*;

public class Practical4 extends Applet implements ActionListener {

Panel mainp,p1,p2,p3,p4;

CardLayout c1;

Button first,last,next,previous;

public void init() {

setSize(600,600);

setLayout(null);

mainp =new Panel();

mainp.setBackground(Color.orange);

mainp.setBounds(20,20,200,200);

c1= new CardLayout();

mainp.setLayout(c1);

add(mainp);

p1 =new Panel();

p1.setBounds(100,100,250,250);

p1.setBackground(Color.pink);

mainp.add(p1);

p2 =new Panel();

p2.setBackground(Color.yellow);

p2.setBounds(100,-100,250,250);

mainp.add(p2);

p3 =new Panel();

p3.setBackground(Color.GREEN);

p3.setBounds(100,100,250,250);

mainp.add(p3);

first = new Button("first");

first.setBounds(30,340,50,30);

first.addActionListener(this);

add(first);

last = new Button("last");

last.setBounds(90,340,50,30);

last.addActionListener(this);

add(last);

next = new Button("next");

next.setBounds(150,340,70,30);

next.addActionListener(this);

add(next);

previous = new Button("previous");

previous.setBounds(230,340,50,30);

previous.addActionListener(this);

add(previous);

}

@Override

public void actionPerformed(ActionEvent ae){

if(ae.getSource()==first)

{

c1.first(mainp);

}

else if(ae.getSource()==next)

{

c1.next(mainp);

}

else if(ae.getSource()==previous)

{

c1.next(mainp);

}

else if(ae.getSource()==last)

{

c1.next(mainp);

}

}

}

**PRACTICAL-5**

import java.awt.\*;

import java.awt.event.\*;

class Notepad extends Frame implements ActionListener

{

MenuItem m12,m13;

Notepad()

{

setBackground(Color.pink);

MenuBar mbr=new MenuBar();

Menu m1=new Menu("File");

MenuItem m11=new MenuItem("New");

m12=new MenuItem("Open");

m13=new MenuItem("Save");

MenuItem m14=new MenuItem("Save As");

m1.add(m11);

m1.add(m12);

m1.add(m13);

m1.add(m14);

Menu m2=new Menu("Edit");

MenuItem m21=new MenuItem("Undo");

MenuItem m22=new MenuItem("Cut");

MenuItem m23=new MenuItem("Copy");

MenuItem m24=new MenuItem("Paste");

m2.add(m21);

m2.add(m22);

m2.add(m23);

m2.add(m24);

Menu m3=new Menu("Search");

MenuItem m31=new MenuItem("Find");

MenuItem m32=new MenuItem("Find in File");

MenuItem m33=new MenuItem("Find Next");

MenuItem m34=new MenuItem("Find Previous");

m3.add(m31);

m3.add(m32);

m3.add(m33);

m3.add(m34);

Menu m4=new Menu("View");

Menu m41=new Menu("Zoom");

MenuItem m411=new MenuItem("Zoom In");

MenuItem m412=new MenuItem("Zoom Out");

m41.add(m411);

m41.add(m412);

CheckboxMenuItem m42=new CheckboxMenuItem("Word Wrap");

MenuItem m43=new MenuItem("Tab");

MenuItem m44=new MenuItem("Fold All");

m4.add(m41);

m4.add(m42);

m4.add(m43);

m4.add(m44);

mbr.add(m1);

mbr.add(m2);

mbr.add(m3);

mbr.add(m4);

setMenuBar(mbr);

m12.addActionListener(this);

m13.addActionListener(this);

}

public void actionPerformed(ActionEvent ae)

{

if(ae.getSource()==m12)

{

FileDialog fd=new FileDialog(this,"Open",FileDialog.LOAD);

fd.setVisible(true);

}

if(ae.getSource()==m13)

{

FileDialog fd=new FileDialog(this,"Save",FileDialog.SAVE);

fd.setVisible(true);

}

}

public static void main(String args[])

{

Notepad n1=new Notepad();

n1.setVisible(true);

n1.setTitle("Notepad");

n1.setSize(500,500);

}

}

**PRACTICAL-6**

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

public class Practical6 extends JApplet implements ItemListener {

JComboBox cb1;

Container c;

JTextField jtf;

JScrollPane jsp;

public void init() {

c = getContentPane();

c.setLayout(new FlowLayout());

cb1 = new JComboBox();

cb1.addItem("English");

cb1.addItem("Marathi");

cb1.addItem("Hindi");

cb1.addItem("Sanskrit");

jsp = new JScrollPane(cb1,22,32);

cb1.addItemListener(this);

c.add(jsp);

jtf = new JTextField(10);

c.add(jtf);

}

public void itemStateChanged(ItemEvent ie)

{

jtf.setText(""+cb1.getSelectedItem());

}}

**PRACTICAL-7**

import java.awt.\*;

import javax.swing.\*;

import javax.swing.tree.\*;

public class JTreeDemo extends JFrame

{

JTree tree;

JTreeDemo()

{

DefaultMutableTreeNode top=new DefaultMutableTreeNode("Computer Department");

DefaultMutableTreeNode a= new DefaultMutableTreeNode("FYCM");

top.add(a);

DefaultMutableTreeNode a1=new DefaultMutableTreeNode("Lin");

a.add(a1);

DefaultMutableTreeNode a2=new DefaultMutableTreeNode("WIN");

a.add(a2);

DefaultMutableTreeNode a3=new DefaultMutableTreeNode("MAC");

a.add(a3);

DefaultMutableTreeNode b= new DefaultMutableTreeNode("SYCM");

top.add(b);

DefaultMutableTreeNode b1=new DefaultMutableTreeNode("LIN");

b.add(b1);

DefaultMutableTreeNode b2=new DefaultMutableTreeNode("WIN");

b.add(b2);

DefaultMutableTreeNode b3=new DefaultMutableTreeNode("MAC");

b.add(b3);

DefaultMutableTreeNode c= new DefaultMutableTreeNode("TYCM");

top.add(c);

DefaultMutableTreeNode c1=new DefaultMutableTreeNode("LIN");

c.add(c1);

DefaultMutableTreeNode c2=new DefaultMutableTreeNode("WIN");

c.add(c2);

DefaultMutableTreeNode c3=new DefaultMutableTreeNode("MAC");

c.add(c3); tree=new JTree(top);

int v=ScrollPaneConstants.VERTICAL\_SCROLLBAR\_AS\_NEEDED;

int h=ScrollPaneConstants.HORIZONTAL\_SCROLLBAR\_AS\_NEEDED;

JScrollPane jsp=new JScrollPane(tree,v,h);

add(jsp);

}

public static void main(String a[])

{

JTreeDemo jt=new JTreeDemo(); jt.setSize(300,300); jt.setVisible(true);

}

}

**PRACTICAL-8**

package Practical5;

import javax.swing.\*;

public class Practical5 extends JFrame{

JTable jt;

JScrollPane jsp;

Practical5 (){

String col[]={"Name","Roll\_no","Enrollement\_no","Clss","Batch"};

String Student\_info[][]={

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

{"Rutik","65","222091060","TYCM","B" },

};

jt=new JTable(Student\_info,col);

jsp=new JScrollPane(jt,ScrollPaneConstants.VERTICAL\_SCROLLBAR\_ALWAYS,ScrollPaneConstants.HORIZONTAL\_SCROLLBAR\_ALWAYS);

add(jsp);

}

public static void main(String[] args) {

Practical5 p=new Practical5();

p.setSize(300,300);

p.setVisible(true);

}

}

}

**PRACTICAL-12**

**1)Write a program to demonstrate the used of JTextField and JPasswordField using Listener Interface.**

import java.awt.Color;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import javax.swing.\*;

public class NewJApplet extends JApplet implements ActionListener {

JPanel p;

JTextField jt;

JPasswordField jpwd;

JButton ju,jp;

JLabel jl,j2,j3;

public void init() {

p=new JPanel();

jt=new JTextField();

ju=new JButton("Login");

jp=new JButton("Reset");

jpwd=new JPasswordField();

jl=new JLabel("Login Form");

j2=new JLabel("Username");

j3=new JLabel("Password");

p.setBackground(Color.pink);

add(p);

p.setLayout(null);

p.add(jl);

p.add(j2);

p.add(j3);

p.add(jt);

p.add(jpwd);

p.add(jp);

p.add(ju);

ju.addActionListener(this);

jp.addActionListener(this);

jl.setBounds(10,10,80,20);

j2.setBounds(10,40,80,20);

j3.setBounds(10,70,80,20);

jt.setBounds(100,40,80,20);

jpwd.setBounds(100,70,80,20);

jp.setBounds(10,110,80,20);

ju.setBounds(100,110,80,20);

}

public void actionPerformed (ActionEvent ae)

{

if(ae.getSource()==jp)

{

jt.setText("");

jpwd.setText("");

}

else

{

String username=jt.getText();

String pass = jpwd.getText();

if(username.equals("KKWP") && pass.equals("password"))

{

showStatus("Login Successful");

}

else

{

showStatus("Incorrect Username and Password");

}

}

}

}

**PRACTICAL-15**

import java.net.\*;

public class pr14INET {

public static void main(String[] args)throws Exception {

InetAddress inet=InetAddress.getLocalHost();

System.out.println("Local Host:"+inet);

System.out.println("Local HostName:"+inet.getHostName());

System.out.println("Local HostAddress(:"+inet.getHostAddress());

System.out.println("Local CanonicalHostName(:"+inet.getCanonicalHostName());

InetAddress inet1=InetAddress.getByName("www.google.com");

System.out.println("Google Host:"+inet1);

System.out.println("Google HostName:"+inet1.getHostName());

System.out.println("Google HostAddress(:"+inet1.getHostAddress());

InetAddress inet2=InetAddress.getByName("PRL-20");

System.out.println("PRL-20 Host:"+inet2);

System.out.println("PRL-20 HostName:"+inet2.getHostName());

System.out.println("PRL-20 HostAddress(:"+inet2.getHostAddress());

InetAddress inet3[]=InetAddress.getAllByName("www.yahoo.com");

for(int i=0 ; i<inet3.length ;i++)

{

System.out.println(inet3[i]);

}

}

}

**PRACTICAL-10**

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

public class pr10 extends JApplet {

JTextField t1,t2;

JPanel jp;

Container c;

@Override

public void init()

{

setSize(400,400);

setLayout(null);

t1= new JTextField();

t1.setBounds(30,50,100,40);

add(t1);

t2= new JTextField();

t2.setBounds(160,50,170,40);

add(t2);

t1.addKeyListener(new KeyAdapter()

{

public void keyTyped(KeyEvent ke)

{

char c=ke.getKeyChar();

if(c==KeyEvent.VK\_Y)

{

t2.setText("Yash");

t2.setBackground(Color.yellow);

}

else if(c==KeyEvent.VK\_R)

{

t2.setText("Rutik");

t2.setBackground(Color.red);

}

}

}

);

}

}

**PRACTICAL-11**

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

public class prac11 extends JApplet {

Container c;

@Override

public void init() {

c=getContentPane();

addMouseListener(new MouseAdapter()

{

@Override

public void mouseClicked(MouseEvent me)

{

Graphics g=getGraphics();

g.setColor(Color.red);

g.drawString("&",me.getX(),me.getY());

}

public void mouseEntered(MouseEvent me)

{

Graphics g=getGraphics();

g.setColor(Color.red);

g.drawString("12"+me.getX(),100,100);

}

public void mouseExited(MouseEvent me)

{

Graphics g=getGraphics();

g.setColor(Color.red);

g.drawString(""+me.getX(),100,100);

}

public void mousePressed(MouseEvent me)

{

Graphics g=getGraphics();

g.setColor(Color.red);

g.drawString("12",me.getX(),me.getY());

}

public void mouseReleased(MouseEvent me)

{

//Graphics g=getGraphics();

c.setBackground(Color.white);

// g.drawString("",me.getX(),me.getY());

}

});

addMouseMotionListener(new MouseAdapter(){

public void mouseMoved(MouseEvent me)

{

Graphics g=getGraphics();

g.setColor(Color.blue);

g.drawString("$",me.getX(),me.getY());

}

public void mouseDragged(MouseEvent me)

{

Graphics g=getGraphics();

g.setColor(Color.green);

g.drawString("123",me.getX(),me.getY());

}

});

}

}

**23.cookie**

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<div >TODO write content</div><br>

<form action="Servlet1">

First Name:<input type="text" name="fname"><br>

Last Name:<input type="text" name="lname"><br>

Roll no:<input type="text" name="roll"><br>

Marks of OSY:<input type="text" name="m1"><br>

Marks of AJP:<input type="text" name="m2"><br>

Marks of CSS:<input type="text" name="m3"><br><!-- comment -->

Marks of STE:<input type="text" name="m4"><br>

Marks of EST:<input type="text" name="m5"><br>

<input type="submit" name="sbutton">

</form>

</body>

</html>

**NewServlet1.java**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

public class Servlet1 extends HttpServlet {

@Override

protected void doGet(HttpServletRequest req, HttpServletResponse res)

throws ServletException, IOException {

res.setContentType("text/html");

PrintWriter pw = res.getWriter();

HttpSession hp = req.getSession(true);

pw.println("Session ID: " + hp.getId() + "<br>");

String name1 = req.getParameter("fname");

String name2 = req.getParameter("lname");

String roll = req.getParameter("roll");

String m1 = req.getParameter("m1");

String m2 = req.getParameter("m2");

String m3 = req.getParameter("m3");

String m4 = req.getParameter("m4");

String m5 = req.getParameter("m5");

Cookie c1 = new Cookie("fname", name1);

Cookie c2 = new Cookie("lname", name2);

Cookie c3 = new Cookie("roll", roll);

Cookie c4 = new Cookie("m1", m1);

Cookie c5 = new Cookie("m2", m2);

Cookie c6 = new Cookie("m3", m3);

Cookie c7 = new Cookie("m4", m4);

Cookie c8 = new Cookie("m5", m5); // Fix duplicate cookie name

res.addCookie(c1);

res.addCookie(c2);

res.addCookie(c3);

res.addCookie(c4);

res.addCookie(c5);

res.addCookie(c6);

res.addCookie(c7);

res.addCookie(c8);

Cookie[] c = req.getCookies();

if (c != null) {

for (int i = 0; i < c.length; i++) {

pw.println("Cookie name: " + c[i].getName() + "<br>");

pw.println("Cookie value: " + c[i].getValue() + "<br>");

}

} else {

pw.println("No cookies found!<br>");

}

}

}