Core Java

ASSIGNMENT 5

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ASSIGNMENT BASED ON: APPLET, SWING, AWT

ASSIGNMENT 5

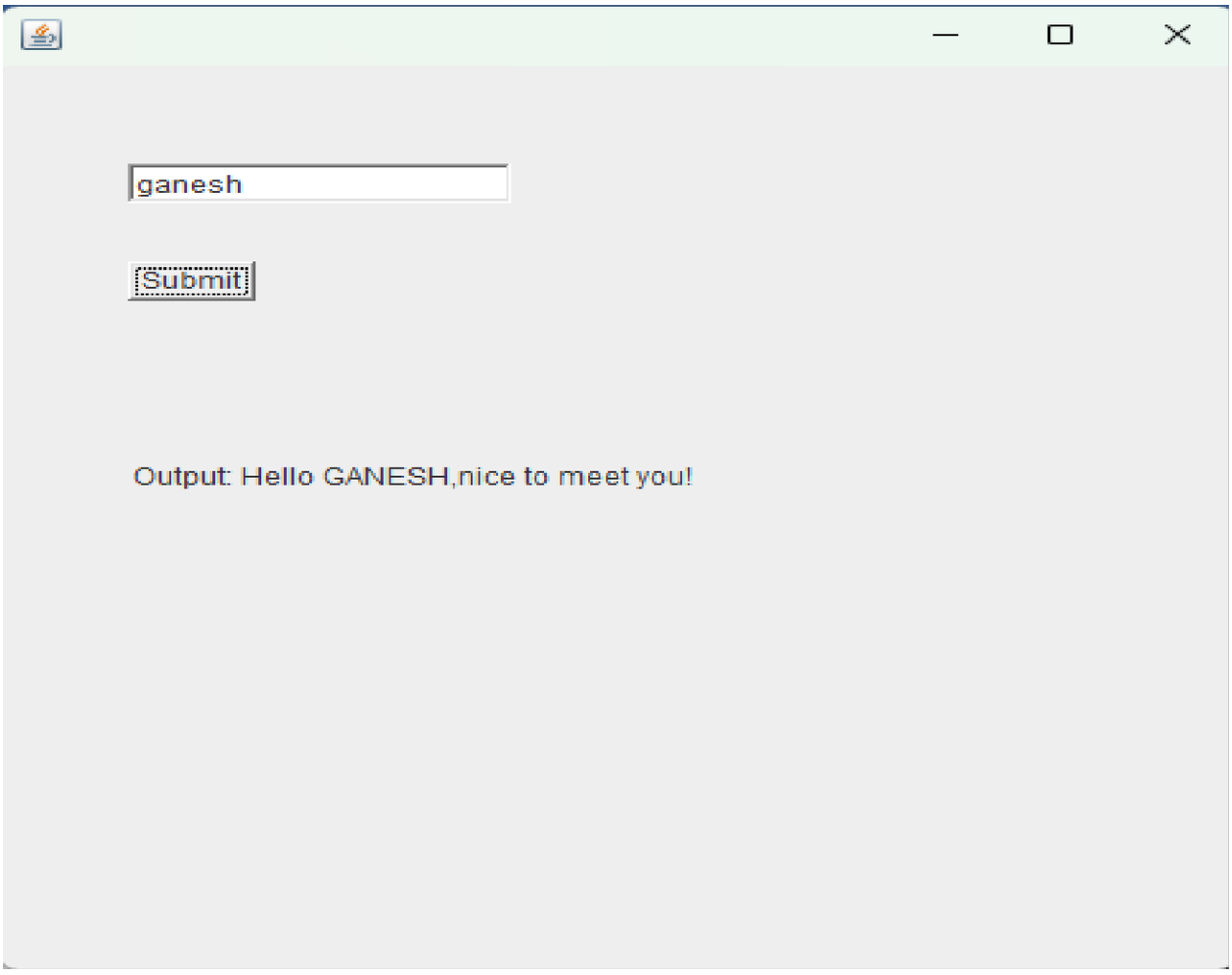
SET-A

Q.1 Write a program that asks the user's name, and then greets the user by name. Before outputting the user's name, convert it to upper case letters. For example, if the user's name is Raj, then the program should respond "Hello, RAJ, nice to meet you!".

Ans:

```
import javax.swing.*;
import java.awt.event.*;
import java.awt.*;
public class Q1 extends JFrame implements ActionListener{
TextField tb1;
Button btn;
Label lbl;
public Q1(){
        tb1=new TextField();
        tb1.setBounds(50,50,150,20);
        btn=new Button("Submit");
        btn.setBounds(50,100,50,20);
        btn.addActionListener(this);
        lbl=new Label("Result :");
        lbl.setBounds(50,200,300,20);
        add(tb1);
        add(btn);
        add(lbl);
        setSize(500,500);
        setLayout(null);
        setVisible(true);
        addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e){
                        dispose();
                        System.exit(0);
        }
        });
}
public void actionPerformed(ActionEvent e){
        String s1=tb1.getText();
        String s2="Output: Hello "+s1.toUpperCase()+",nice to meet you!";
        lbl.setText(s2);
}
public static void main(String para[]){
        new Q1();
}
}
```

Output:


ganesh
Submit
Output: Hello GANESH,nice to meet you!

ASSIGNMENT 5

SET-A

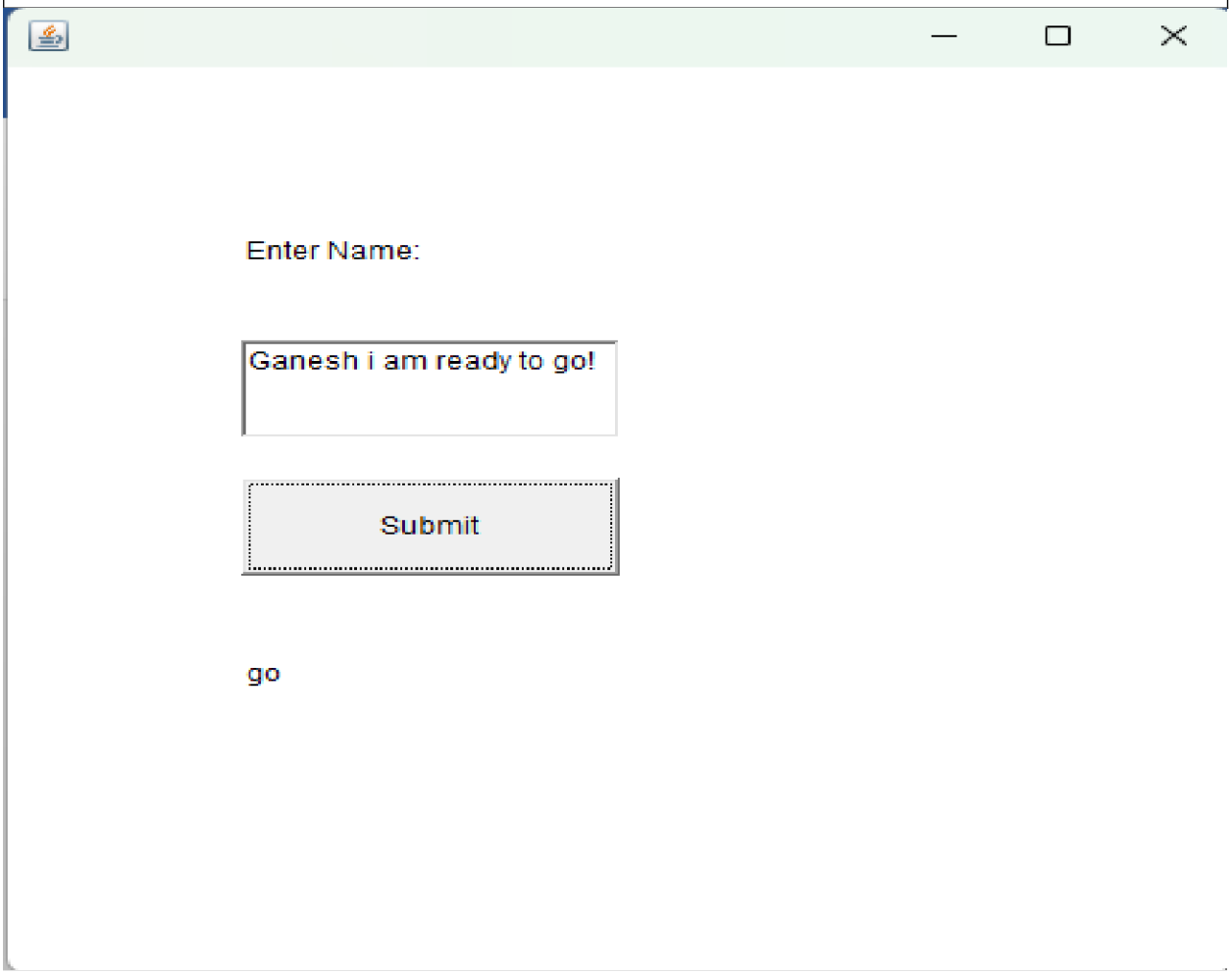
Q.2 Write a program that reads one line of input text and breaks it up into words. The words should be output one per line. A word is defined to be a sequence of letters. Any characters in the input that are not letters should be discarded. For example, if the user inputs the line He said, "That's not a good idea." then the output of the program should be He said thats not a good idea

Ans:

```
import java.awt.*;
import java.awt.event.*;
class Q2 extends Frame implements ActionListener{
        TextField tb1;
        Label lbl2;
    Q2(){
          Label lbl1=new Label("Enter Name: ");
                tb1=new TextField();
                Button btn=new Button("Submit");
                btn.addActionListener(this);
                lbl2=new Label("Result");
                setLayout(null);
                setSize(500,500);
                //setExitOnClose(JFrame,EXIT_ON_CLOSE);
                add(lbl1);
                add(btn);
                add(tb1);
                add(lbl2);
                setVisible(true);
                lbl1.setBounds(100,100,150,50);
                tb1.setBounds(100,170,150,50);
                btn.setBounds(100,240,150,50);
                lbl2.setBounds(100,290,150,100);
                addWindowListener(new WindowAdapter(){
          public void windowClosing(WindowEvent e3){
                System.exit(0);
        }
});
}
public void actionPerformed(ActionEvent e){
        String res=tb1.getText();
        String validated=res.replaceAll("[^a-zA-Z]"," ");
        String[] words=validated.split(" ");

        for(String word:words){
                lbl2.setText(word);
                try{
   Thread.sleep(1000);
  }catch(Exception e1){
```

```
    e1.printStackTrace();
  }
          }
}

public static void main(String[] args) {
          Q2 obj=new Q2();
}
}
```

Output:



Note : After 1 second all the words will iterate one by one and all the digits and special characters will be ignored while iterating through the given string(we use Thread.sleep() method which is used to display contents after a given time period because label is unable to iterate through loop).

ASSIGNMENT 5

SET-A

Q.3 Write a program that will read a sequence of positive real numbers entered by the user and will print the same numbers in sorted order from smallest to largest. The user will input a zero to mark the end of the input. Assume that at most 100 positive numbers will be entered.

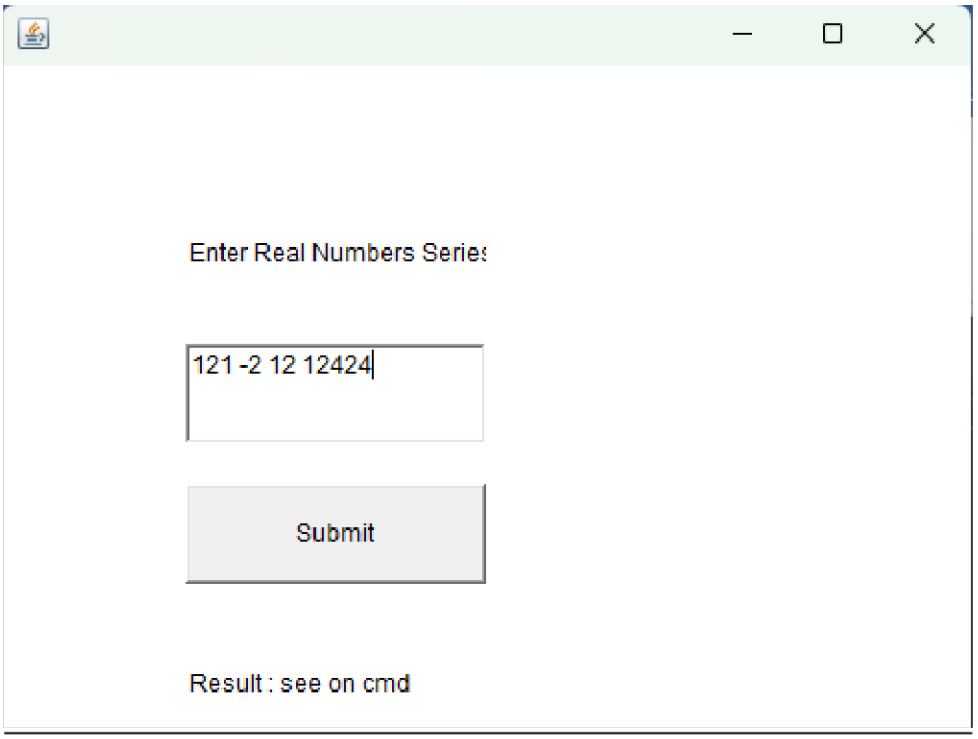
Ans:

```
import java.awt.*;
import java.awt.event.*;
import java.util.*;
class Q3 extends Frame implements ActionListener{
        TextField tb1;
        Label lbl2;
    Q3(){
          Label lbl1=new Label("Enter Real Numbers Series: ");
                tb1=new TextField();
                Button btn=new Button("Submit");
                btn.addActionListener(this);
                lbl2=new Label("Result : see on cmd");
                setLayout(null);
                setSize(500,500);
                //setExitOnClose(JFrame,EXIT_ON_CLOSE);
                add(lbl1);
                add(btn);
                add(tb1);
                add(lbl2);
                setVisible(true);
                lbl1.setBounds(100,100,150,50);
                tb1.setBounds(100,170,150,50);
                btn.setBounds(100,240,150,50);
                lbl2.setBounds(100,290,400,100);
                addWindowListener(new WindowAdapter(){
          public void windowClosing(WindowEvent e3){
                System.exit(0);
        }
});
}
public void actionPerformed(ActionEvent e){
        ArrayList<Integer> al=new ArrayList<Integer>();
        String res=tb1.getText();
        String[] arr=res.split("\\s+");
        for(String num:arr){
                int d=Integer.parseInt(num);
                if(d!=0 && d>0)
                al.add(d);
        }
        System.out.println("Sorted Real Numbers Sequence is: ");
```

```
        Collections.sort(al);
        for(int d:al){
                System.out.println(d);
        }
        }
        public static void main(String[] args) {
                new Q3();
        }
}
```

Output:

OUTPUT1



OUTPUT 2

ASSIGNMENT 5

SET-A

Q.4 Create an Applet that displays the x and y position of the cursor movement using Mouse and Keyboard. (Use appropriate listener).

Ans:

```
import java.awt.*;
import java.awt.event.*;
import java.applet.*;
public class Q4 extends Applet implements KeyListener {
        String msg = " ";
   int X = 10, Y = 20;
   public void init() {
        addKeyListener(this);
      requestFocus();
   }
   public void keyPressed(KeyEvent ke) {
        showStatus("Key Down");
   }
   public void keyReleased(KeyEvent ke) {
        showStatus("Key Up");
   }
   public void keyTyped (KeyEvent ke) {
        msg += ke.getKeyChar();
      repaint();
   }
   public void paint(Graphics g) {
        g.drawString(msg, X, Y);
   }
}

/*<applet code="Q4.class" width="300" height="300"></applet>*/
```

Output:Applet is not supported on jdk 19.

ASSIGNMENT 5

SET-A

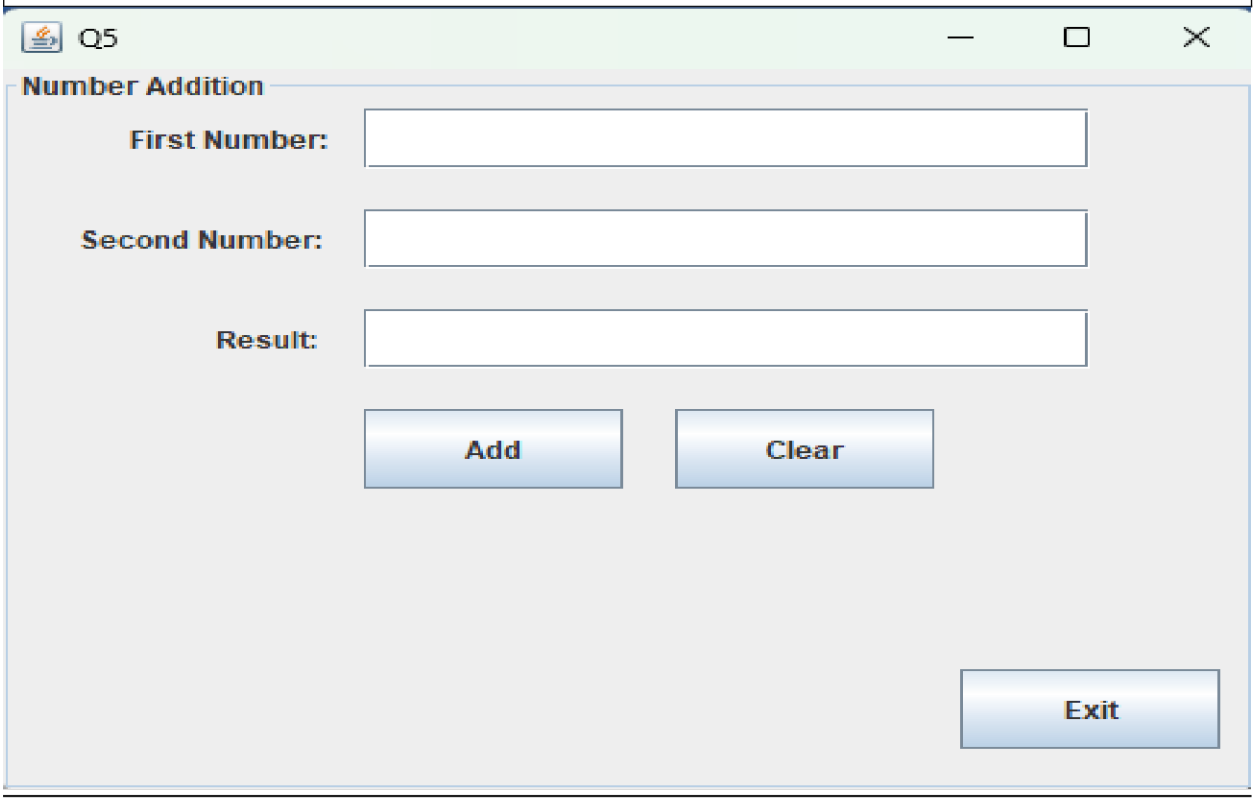
Q.5 Create the following GUI screen using appropriate layout managers.

Ans:

```
import javax.swing.*;

public class Q5 extends JFrame {
   public static void main(String[] args) {
      JFrame frame = new JFrame("Q5");
      frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      frame.setSize(500, 400);

      JPanel panel = new JPanel();
      panel.setBorder(BorderFactory.createTitledBorder("Number Addition"));
      JLabel lbl1 = new JLabel("First Number: ");
      lbl1.setBounds(50,10,200,50);
      JTextField tb1=new JTextField();
      tb1.setBounds(140,20,280,30);
      JLabel lbl2 = new JLabel("Second Number: ");
      lbl2.setBounds(30,60,200,50);
      JTextField tb2=new JTextField();
      tb2.setBounds(140,70,280,30);
      JLabel lbl3 = new JLabel("Result: ");
      lbl3.setBounds(83,110,200,50);
      JTextField tb3=new JTextField();
      tb3.setBounds(140,120,280,30);
      JButton add=new JButton("Add");
      add.setBounds(140,170,100,40);
```

```
        JButton clear=new JButton("Clear");
        clear.setBounds(260,170,100,40);
        frame.add(lbl1);
        frame.add(tb1);
        frame.add(lbl2);
        frame.add(tb2);
        frame.add(lbl3);
        frame.add(tb3);
        frame.add(add);
        frame.add(clear);
        JButton exit=new JButton("Exit");
        exit.setBounds(370,300,100,40);
        frame.add(exit);

        // Add other components to the panel here

        frame.add(panel);
        frame.setVisible(true);
    }
}
```

Output:



ASSIGNMENT 5

SET-B

Q.1 Write a java program to implement a simple arithmetic calculator. Perform appropriate validations.

Ans:

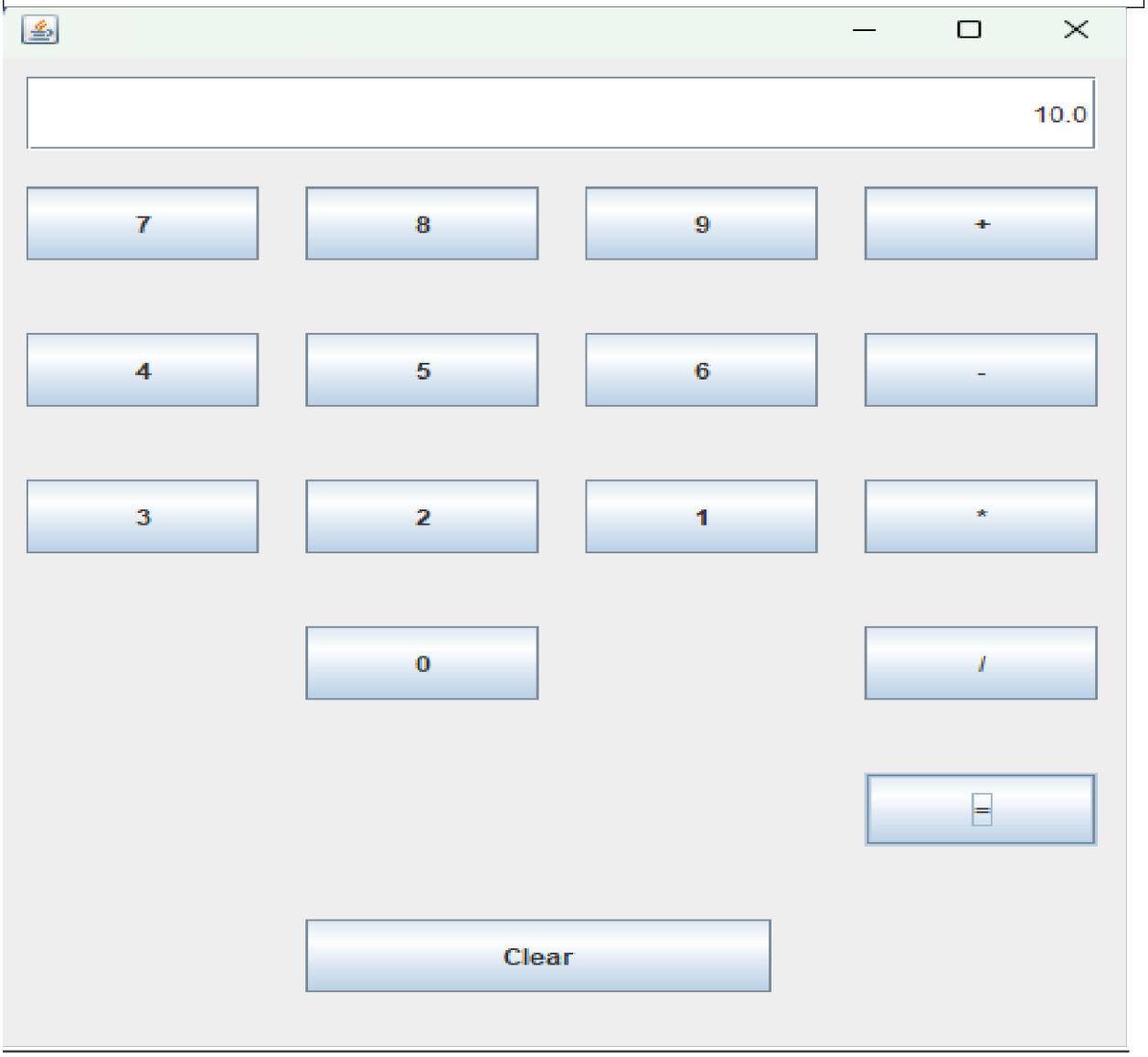
```
import javax.swing.*;
import java.awt.event.*;
import java.awt.*;
class Q1 extends JFrame implements ActionListener{
        JTextField tb1;
        JButton
btn0,btn1,btn2,btn3,btn4,btn5,btn6,btn7,btn8,btn9,btn10,add,sub,div,mult,equals,clear,mod;
        String operator;
   double num1, num2, result;
        Q1(){
                this.setLayout(null);
                tb1=new JTextField();
                tb1.setBounds(10,10,460,40);
                tb1.setHorizontalAlignment(JTextField.RIGHT);
                this.add(tb1);
                btn7=new JButton("7");
                btn7.setBounds(10,70,100,40);
                this.add(btn7);
                btn8=new JButton("8");
                btn8.setBounds(130,70,100,40);
                this.add(btn8);
                btn9=new JButton("9");
                btn9.setBounds(250,70,100,40);
                this.add(btn9);
```

```
add=new JButton("+");
add.setBounds(370,70,100,40);
this.add(add);
btn4=new JButton("4");
btn4.setBounds(10,150,100,40);
this.add(btn4);
btn5=new JButton("5");
btn5.setBounds(130,150,100,40);
this.add(btn5);
btn6=new JButton("6");
btn6.setBounds(250,150,100,40);
this.add(btn6);
sub=new JButton("-");
sub.setBounds(370,150,100,40);
this.add(sub);
btn3=new JButton("3");
btn3.setBounds(10,230,100,40);
this.add(btn3);
btn2=new JButton("2");
btn2.setBounds(130,230,100,40);
this.add(btn2);
btn1=new JButton("1");
btn1.setBounds(250,230,100,40);
this.add(btn1);
mult=new JButton("*");
mult.setBounds(370,230,100,40);
this.add(mult);
btn0=new JButton("0");
btn0.setBounds(130,310,100,40);
this.add(btn0);
div=new JButton("/");
div.setBounds(370,310,100,40);
this.add(div);
equals=new JButton("=");
equals.setBounds(370,390,100,40);
this.add(equals);
clear=new JButton("Clear");
clear.setBounds(130,470,200,40);
this.add(clear);
this.setSize(500,600);
this.setVisible(true);
this.setDefaultCloseOperation(this.EXIT_ON_CLOSE);
btn0.addActionListener(this);
btn1.addActionListener(this);
btn2.addActionListener(this);
btn3.addActionListener(this);
btn4.addActionListener(this);
btn5.addActionListener(this);
```

```
                btn6.addActionListener(this);
                btn7.addActionListener(this);
                btn8.addActionListener(this);
                btn9.addActionListener(this);
                sub.addActionListener(this);
                add.addActionListener(this);
                mult.addActionListener(this);
                div.addActionListener(this);
                clear.addActionListener(this);
                equals.addActionListener(this);
        }
            public void actionPerformed(ActionEvent e) {
    String res = e.getActionCommand();

    if ("0123456789".contains(res)) {
       tb1.setText(tb1.getText() + res);
    } else if ("+-*/".contains(res)) {
       operator = res;
       num1 = Double.parseDouble(tb1.getText());
       tb1.setText("");
    } else if (res.equals("=")) {
       num2 = Double.parseDouble(tb1.getText());
       switch (operator) {
          case "+":
             result = num1 + num2;
             break;
          case "-":
             result = num1 - num2;
             break;
          case "*":
             result = num1 * num2;
             break;
          case "/":
             if (num2 != 0) {
                result = num1 / num2;
             } else {
                tb1.setText("Error");
                return;
             }
             break;
       }
       tb1.setText(String.valueOf(result));
    } else if (res.equals("Clear")) {
       tb1.setText("");
       num1 = num2 = result = 0;
    }
 }
          public static void main(String[] args) {
```

```
                new Q1();
        }
}
```

Output:



ASSIGNMENT 5

SET-B

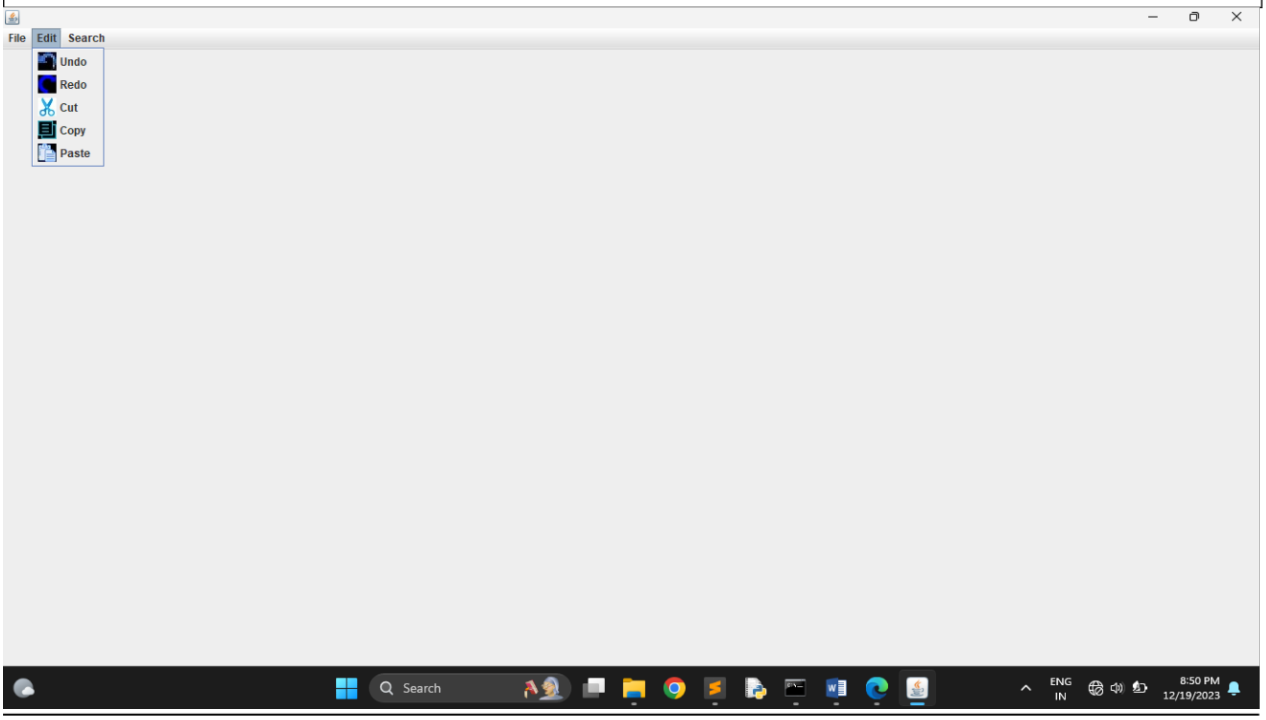
Q.2 Write a java program to implement following. Program should handle appropriate events.

Ans:

```
import javax.swing.*;
import java.awt.*;
class Q2 extends JFrame{
        Q2(){
                JMenuBar mb=new JMenuBar();
                this.setJMenuBar(mb);
                JMenu file=new JMenu("File");
                JMenuItem newone,open;
                file.add(newone=new JMenuItem("new"));
                file.add(open=new JMenuItem("open"));
                mb.add(file);

                JMenu edit=new JMenu("Edit");
                //MenuItem undo,redo,cut,copy,paste;
                JMenuItem undo=new JMenuItem("Undo");
                JMenuItem redo=new JMenuItem("Redo");
                JMenuItem cut=new JMenuItem("Cut");
                JMenuItem copy=new JMenuItem("Copy");
                JMenuItem paste=new JMenuItem("Paste");
                undo.setIcon(new ImageIcon("undo.jpeg"));
                redo.setIcon(new ImageIcon("redo.jpeg"));
                cut.setIcon(new ImageIcon("cut.jpeg"));
                copy.setIcon(new ImageIcon("copy.jpeg"));
                paste.setIcon(new ImageIcon("paste.jpeg"));
                edit.add(undo);
                edit.add(redo);
                edit.add(cut);
                edit.add(copy);
                edit.add(paste);
                mb.add(edit);
```

```
                JMenu search=new JMenu("Search");
                JMenuItem filename;
                search.add(filename=new JMenuItem("Filename"));
                mb.add(search);
        }
        void config(){
                this.setLayout(null);
                this.setExtendedState(JFrame.MAXIMIZED_BOTH);
                this.setVisible(true);
    this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        }
        public static void main(String[] args) {
                Q2 ob=new Q2();
                ob.config();
        }
}
```

Output:



ASSIGNMENT 5

SET-B

Q.3 Write an applet application to draw Temple.

Ans:

```
import java.applet.Applet;
import java.awt.Color;
import java.awt.Graphics;
public class Q3 extends Applet{
   public void init() {
      setBackground(Color.BLACK);
   }
public void paint(Graphics g){
   g.setColor(Color.WHITE);
   g.drawRect(100, 150, 90, 120);
   g.drawRect(130, 230, 20, 40);
   g.drawLine(150, 100, 100, 150);
   g.drawLine(150, 100, 190, 150);
   g.drawLine(150, 50, 150, 100);
   g.setColor(Color.ORANGE);
   g.drawRect(150, 50, 20, 20);
}
}

/*<applet code="Q3.class" width="300" height="300">
</applet>*/
```

Output: Applet is not a supported above jdk 6.0 version and hence unable to provide op

ASSIGNMENT 5

SET-B

Q.4 Write an applet application to display Table lamp. The color of lamp should get change in random color.

Ans:

```
import java.awt.*;
import java.applet.*;
public class Q4 extends Applet{
   public float R,G,B;
   Graphics gl;
   public void init(){
      repaint();
   }
   public void paint(Graphics g){
      R = (float)Math.random();
      G = (float)Math.random();
      B = (float)Math.random();
      Color col = new Color(R,G,B);
         g.drawRect(0,250,290,290);
         g.drawLine(125,250,125,160);
         g.drawLine(175,250,175,160);
         g.drawArc(85,157,130,50,-65,312);
         g.drawArc(85,87,130,50,62,58);
         g.drawLine(85,177,119,89);
         g.drawLine(215,177,181,89);
         g.setColor(col);
         g.fillArc(78,120,40,40,63,-174);
         g.fillOval(120,96,40,40);
         g.fillArc(173,100,40,40,110,180);
   }
}
/*<applet code="Q4.class" width="300" height="300"></applet>*/
```

Output: Applet is not a supported above jdk 6.0 version and hence unable to provide op

ASSIGNMENT 5

SET-B

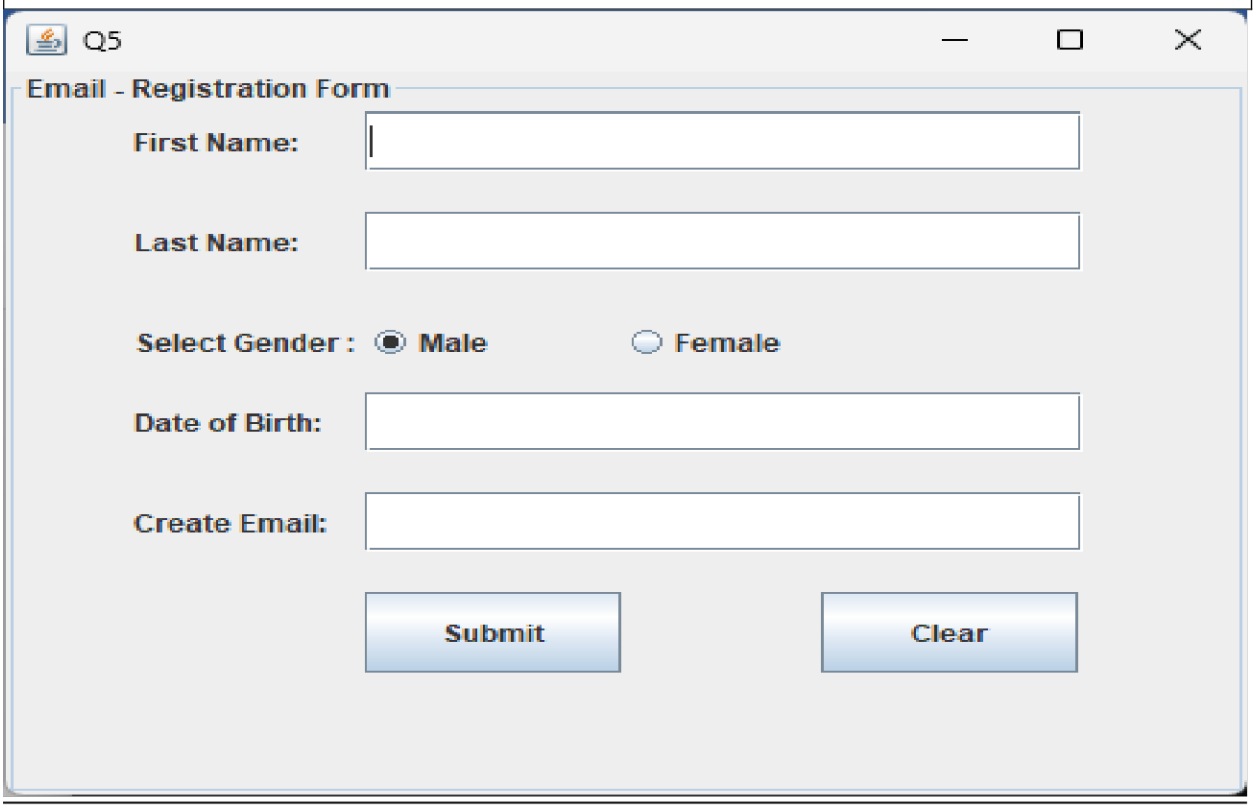
Q.5 Write a java program to design email registration form.(Use maximum Swing component in form).

Ans:

```
import javax.swing.*;
import java.awt.*;
public class Q5 extends JFrame {
   public static void main(String[] args) {
      JFrame frame = new JFrame("Q5");
      frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      frame.setSize(500, 400);
      JPanel panel = new JPanel();
      panel.setBorder(BorderFactory.createTitledBorder("Email - Registration Form"));
      JLabel lbl1 = new JLabel("First Name: ");
      lbl1.setBounds(50,10,200,50);
      JTextField tb1=new JTextField();
      tb1.setBounds(140,20,280,30);
      JLabel lbl2 = new JLabel("Last Name: ");
      lbl2.setBounds(50,60,200,50);
      JTextField tb2=new JTextField();
      tb2.setBounds(140,70,280,30);
      JLabel gender=new JLabel("Select Gender :");
      gender.setBounds(50,110,200,50);
      ButtonGroup bg=new ButtonGroup();
      JRadioButton rb1=new JRadioButton("Male",true);
      rb1.setBounds(140,110,100,50);
      JRadioButton rb2=new JRadioButton("Female",false);
      rb2.setBounds(240,110,100,50);
      frame.add(gender);
      bg.add(rb1);
      bg.add(rb2);
      frame.add(rb1);
      frame.add(rb2);
      JLabel birthdate = new JLabel("Date of Birth: ");
      birthdate.setBounds(50,150,200,50);
      JTextField dob = new JTextField();
      dob.setBounds(140,160,280,30);
      JLabel lbl3 = new JLabel("Create Email: ");
```

```
        lbl3.setBounds(50,200,200,50);
        JTextField tb3=new JTextField();
        tb3.setBounds(140,210,280,30);
        JButton submit=new JButton("Submit");
        submit.setBounds(140,260,100,40);
        JButton clear=new JButton("Clear");
        clear.setBounds(318,260,100,40);
        frame.add(lbl1);
        frame.add(tb1);
        frame.add(lbl2);
        frame.add(tb2);
        frame.add(birthdate);
        frame.add(dob);
        frame.add(lbl3);
        frame.add(tb3);
        frame.add(submit);
        frame.add(clear);
        frame.add(panel);
        frame.setVisible(true);
    }
}
```

Output:



ASSIGNMENT 5

SET-C

Q.1 Write a java program to accept the details of employee employee eno,ename, sal and display it on next frame using appropriate even .

Ans:

```
import javax.swing.*;
import java.awt.event.*;
public class Q1 extends JFrame implements ActionListener{
        int Eno;
        String Ename;
        int Sal;
        JLabel l,l1,l2,l3;
        JFrame jf1,jf2;
        JTextField tb1,tb2,tb3;
        JButton btn1, btn2;
    Q1(){
        jf1=new JFrame();
                jf2=new JFrame();
                l=new JLabel("Employee Details: ");
                l1=new JLabel("Employee No: ");
                tb1=new JTextField();
                l2=new JLabel("Employee Name: ");
                tb2=new JTextField();
                l3=new JLabel("Employee Sal: ");
                tb3=new JTextField();
                jf1.setLayout(null);
                jf1.setSize(800,800);
                jf1.setVisible(true);
                jf2.setVisible(false);
                l1.setBounds(50,50,80,40);
                tb1.setBounds(150,50,80,40);
                l2.setBounds(50,100,80,40);
                tb2.setBounds(150,100,80,40);
                l3.setBounds(50,150,80,40);
                tb3.setBounds(150,150,80,40);
                btn1=new JButton("Submit");
                btn1.setBounds(50,200,200,40);
                btn1.addActionListener(this);
                btn2=new JButton("Back");
```

```
                btn2.addActionListener(this);
                jf1.add(l1);
                jf1.add(tb1);
                jf1.add(l2);
                jf1.add(tb2);
                jf1.add(l3);
                jf1.add(tb3);
                jf1.add(btn1);
                jf1.setDefaultCloseOperation(jf1.EXIT_ON_CLOSE);
        }
        public void actionPerformed(ActionEvent e){
                jf1.setVisible(false);
                jf2.setVisible(true);
                jf2.setDefaultCloseOperation(jf2.EXIT_ON_CLOSE);
    jf2.setLayout(null);
                jf2.setSize(500,500);
                l1.setBounds(50,50,200,40);
                l2.setBounds(50,150,200,40);
                l3.setBounds(50,200,200,40);
                btn2.setBounds(50,250,200,40);
                jf2.add(l1);
                jf2.add(l2);
                jf2.add(l3);
                jf2.add(btn2);
                l1.setText("Employee No: "+tb1.getText());
                l2.setText("Employee Name: "+tb2.getText());
                l3.setText("Employee Salary: "+tb3.getText());
                if(e.getSource()==btn2){
                        jf2.setVisible(false);
                        jf1.setVisible(true);
                        jf1.setLayout(null);
                }
        }
        public static void main(String[] args) {
                Q1 obj=new Q1();

        }
}
```

Output:

ASSIGNMENT 5

SET-C

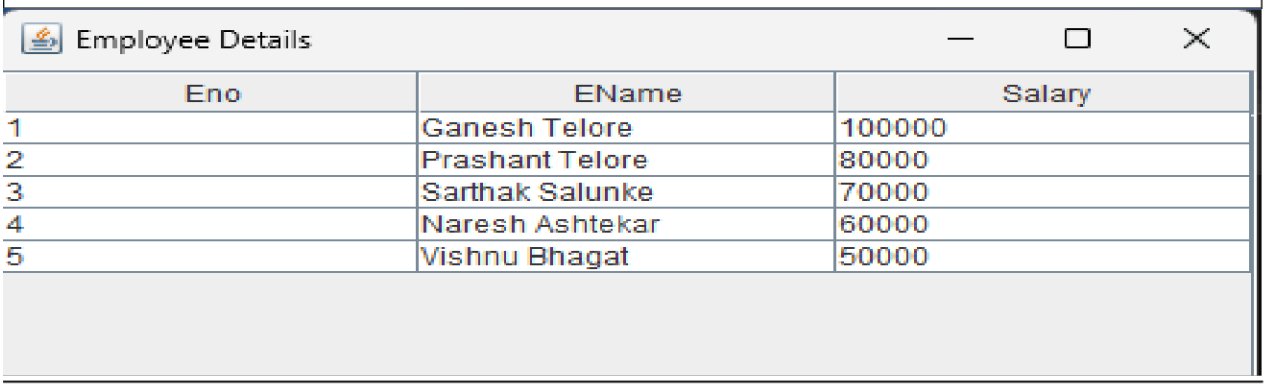
Q.2 Write a java program to display at least five records of employee in JTable.(Eno, Ename ,Sal).

Ans:

```
import javax.swing.*;
class Q2{
        JFrame jf;
        JTable jt;
        Q2(){
                jf=new JFrame();
                jf.setTitle("Employee Details");
                String data[][]={
                        {"1","Ganesh Telore","100000"},
                        {"2","Prashant Telore","80000"},
                        {"3","Sarthak Salunke","70000"},
                        {"4","Naresh Ashtekar","60000"},
                        {"5","Vishnu Bhagat","50000"}
                };
                String col[]={"Eno","EName","Salary"};
                jt=new JTable(data,col);
                jt.setBounds(50,50,300,200);
    JScrollPane sp=new JScrollPane(jt);
    jf.add(sp);
    jf.setSize(500,500);
    jf.setVisible(true);
    jf.setDefaultCloseOperation(jf.EXIT_ON_CLOSE);
        }
        public static void main(String[] args) {
                new Q2();
        }
```

```
}
```

Output:



Eno	EName	Salary
1	Ganesh Telore	100000
2	Prashant Telore	80000
3	Sarthak Salunke	70000
4	Naresh Ashtekar	60000
5	Vishnu Bhagat	50000

ASSIGNMENT 5

SET-C

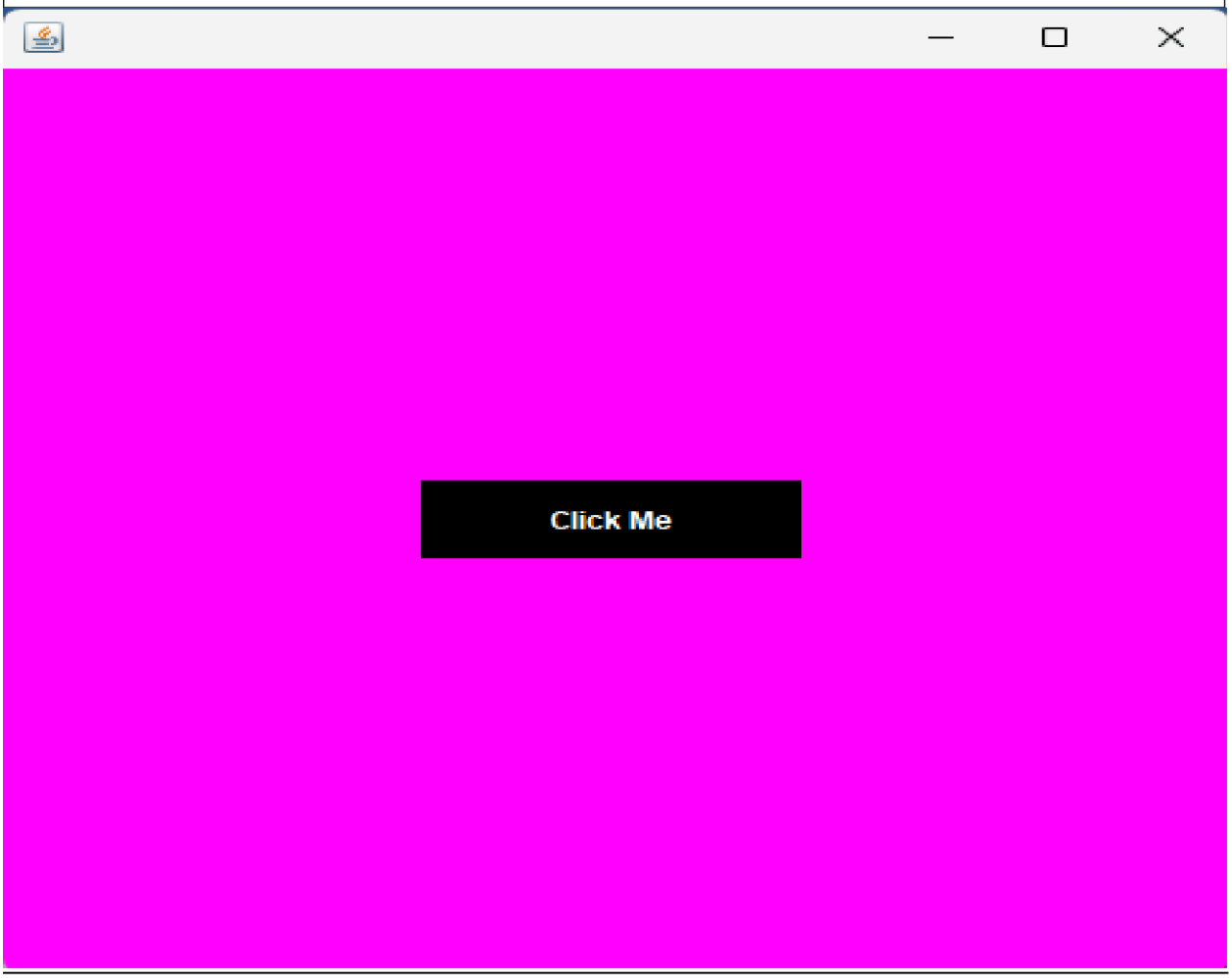
Q.3 Write a java Program to change the color of frame. If user clicks on close button then the position of frame should get change.

Ans:

```
import javax.swing.*;
import java.awt.event.*;
import java.awt.*;
import javax.swing.border.*;
class Q3 extends JFrame implements ActionListener{
   JFrame f;
   Q3() {
      f=new JFrame();
      f.setLayout(null);
      f.setSize(500,500);
      f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      f.setVisible(true);
      JButton btn=new JButton("Click Me");
      btn.setFocusPainted(false);
```

```
        btn.setBorder(new LineBorder(Color.black,1));
        btn.setBackground(Color.black);
        btn.setForeground(Color.white);
        btn.setLocation(165,210);
        btn.setSize(150,40);
        f.add(btn);
        btn.addActionListener(this);
        f.getContentPane().setBackground(Color.magenta);
    }
    public void actionPerformed(ActionEvent e){
        f.setLocation(50,50);
    }
    public static void main(String[] args) {
        new Q3();
    }
}
```

Output:



ASSIGNMENT 5

SET-C

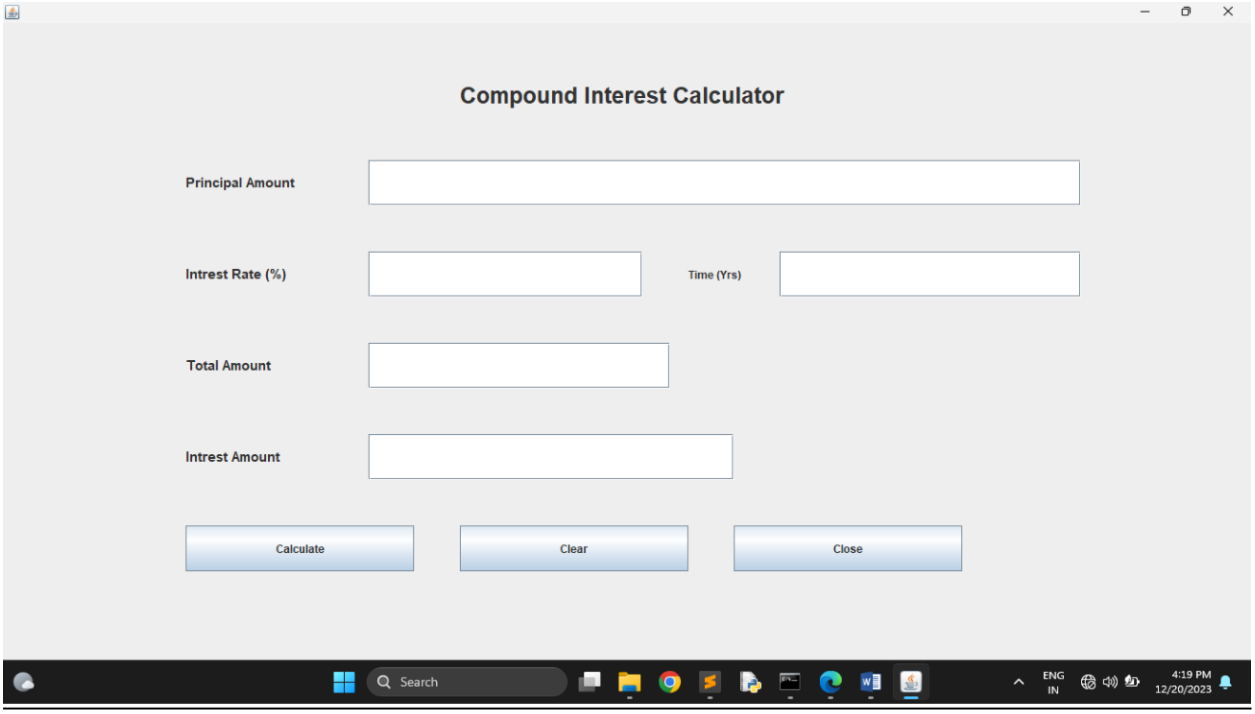
Q.4 Write a java program to display following screen.

Ans:

```
import javax.swing.*;
import java.awt.*;

class Q4 extends JFrame {
   Q4() {
      this.setLayout(null);
      Font font = new Font("Arial", Font.BOLD, 25);
      this.setExtendedState(this.MAXIMIZED_BOTH);
      this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      this.setVisible(true);
      JLabel lbl = new JLabel("Compound Interest Calculator");
      lbl.setBounds(500, 30, 400, 100);
      lbl.setFont(font);
      JLabel lbl2 = new JLabel("Principal Amount ");
      lbl2.setBounds(200, 150, 200, 50);
      lbl2.setFont(new Font("Arial", Font.BOLD, 15));
      JTextField tb1 = new JTextField();
      tb1.setBounds(400, 150, 780, 50);
      JLabel lbl3=new JLabel("Intrest Rate (%)");
      lbl3.setBounds(200, 250, 200, 50);
      lbl3.setFont(new Font("Arial",Font.BOLD,15));
      JTextField tb2=new JTextField();
      tb2.setBounds(400, 250, 300, 50);
      JLabel lbl4=new JLabel("Time (Yrs)");
```

```
        lbl4.setBounds(750,250,200,50);
        JTextField tb3=new JTextField();
        tb3.setBounds(850, 250, 330, 50);
        JLabel lbl5=new JLabel("Total Amount");
        lbl5.setBounds(200,350,200,50);
        lbl5.setFont(new Font("Arial",Font.BOLD,15));
        JTextField tb4=new JTextField();
        tb4.setBounds(400,350,330,50);
        JLabel lbl6=new JLabel("Intrest Amount");
        lbl6.setBounds(200,450,200,50);
        lbl6.setFont(new Font("Arial",Font.BOLD,15));
        JTextField tb5=new JTextField();
        tb5.setBounds(400,450,400,50);
        JButton calculate=new JButton("Calculate");
        calculate.setBounds(200,550,250,50);
        JButton clear=new JButton("Clear");
        clear.setBounds(500,550,250,50);
        JButton close=new JButton("Close");
        close.setBounds(800,550,250,50);
        this.add(lbl);
        this.add(lbl2);
        this.add(tb1);
        this.add(lbl3);
        this.add(tb2);
        this.add(lbl4);
        this.add(tb3);
        this.add(lbl5);
        this.add(tb4);
        this.add(lbl6);
        this.add(tb5);
        this.add(calculate);
        this.add(clear);
        this.add(close);
    }
    public static void main(String[] args) {
        new Q4();
    }
}
```

Output:



ASSIGNMENT 5
SET-C
Q.5 Write an applet application to display smiley and sad face.

Ans:

```
import java.applet.Applet;
import java.awt.Color;
import java.awt.Graphics;
public class Q5 extends Applet {
   public void paint(Graphics g) {
      drawSmiley(g);
      g.translate(100, 0);
      drawSadFace(g);
   }
   private void drawSmiley(Graphics g) {
      g.setColor(Color.yellow);
      g.fillOval(20, 20, 60, 60);
      g.setColor(Color.black);
      g.fillOval(35, 40, 10, 10);
      g.fillOval(55, 40, 10, 10);
```

```
        g.drawArc(35, 40, 30, 30, 180, -180);
    }
    private void drawSadFace(Graphics g) {
        g.setColor(Color.yellow);
        g.fillOval(20, 20, 60, 60);
        g.setColor(Color.black);
        g.fillOval(35, 40, 10, 10);
        g.fillOval(55, 40, 10, 10);
        g.drawArc(35, 55, 30, 15, 0, -180);
    }
}
/*<applet code="Q5.class" width="300" height="300"></applet>*/
```

Output: applet is not supported to jdk 19.

GT