1) Write java program to create a registration form. Take Login id and Password from the user and display it on the third Text Field which appears only on clicking OK button and clear both the Text Fields on clicking RESET button.

Code:

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

class Loginevent extends JFrame implements ActionListener
{
        JFrame jf;
        JLabel l1,l2;
        JTextField tf1, ot;
        JPasswordField tf2;
        JButton b1,b2;

        Loginevent()
        {
                //create componant
                jf= new JFrame("Login Test");
                tf1=new JTextField(10);
                l1=new JLabel("Username");
                ot=new JTextField(20);
                l2=new JLabel("Passward");
                tf2 = new JPasswordField(10);
                b1=new JButton("OK");
                b2=new JButton("Reset");
                //set Layout
                jf.setLayout(new FlowLayout());

                //add component on frame/window
                jf.add(l1);
                jf.add(tf1);
                jf.add(l2);
                jf.add(tf2);
                jf.add(b1);
                jf.add(b2);
                jf.add(ot);

                //register component which are causing events
                b1.addActionListener(this);
                b2.addActionListener(this);
                jf.setSize(500,100);
                jf.setVisible(true);

}
```

```java
public void actionPerformed(ActionEvent e)
{
        if(e.getSource()==b1)
        {
                String s1=tf1.getText();
                String s2 = String.valueOf(tf2.getPassword());
                ot.setText("UserName="+s1+"  Passward="+s2);
        }
        else if(e.getSource()==b2)
        {
                tf1.setText("");
                tf2.setText("");
                ot.setText("");


        }
}

public static void main(String args[])
{
        Loginevent x=new Loginevent();
}
}
```
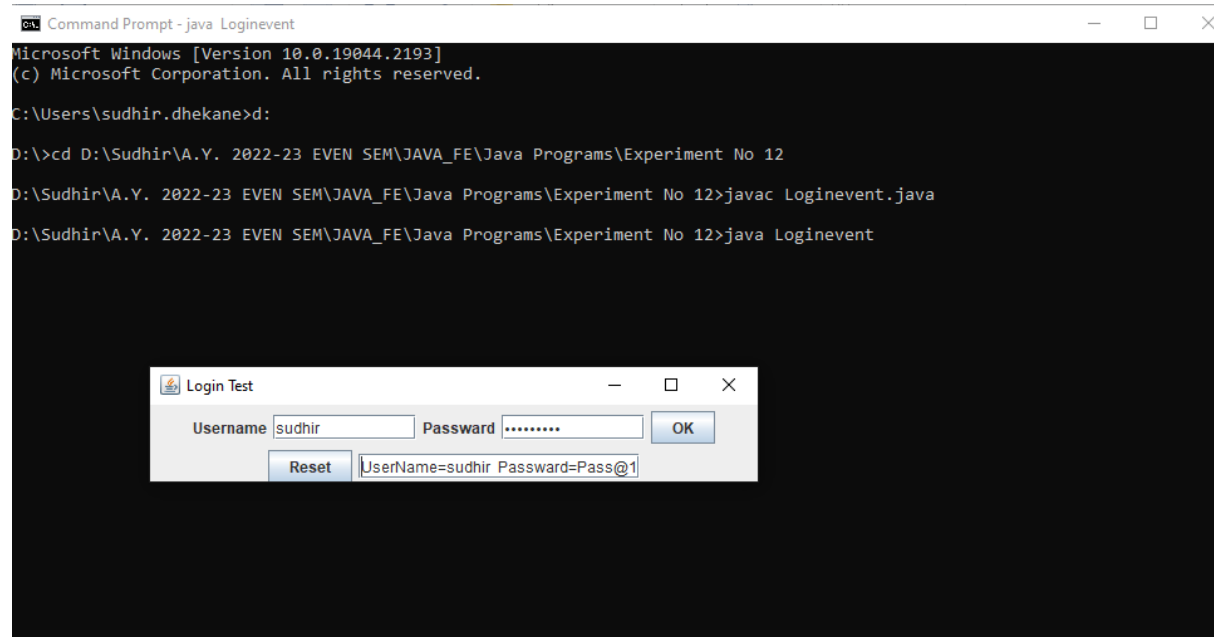
OUTPUT

2) Write a program to create a basic calculator.

```java
import java.awt.event.*;
import javax.swing.*;
import java.awt.*;
class calculatorNew extends JFrame implements ActionListener
{
        double a=0,b=0,result=0;
        JTextField t;
        JButton b0, b1, b2, b3, b4, b5, b6, b7, b8, b9, ba, bs, bd, bm, be, beq, beq1;
 int operator=0;
        calculatorNew()
        {


                b0 = new JButton("0");
                b1 = new JButton("1");
                b2 = new JButton("2");
                b3 = new JButton("3");
                b4 = new JButton("4");
                b5 = new JButton("5");
                b6 = new JButton("6");
                b7 = new JButton("7");
                b8 = new JButton("8");
                b9 = new JButton("9");

                // create operator buttons
                beq1 = new JButton("=");
                ba = new JButton("+");
                bs = new JButton("-");
                bd = new JButton("/");
                bm = new JButton("*");
                beq = new JButton("C");
                be = new JButton(".");

                t=new JTextField(20);
                t.setSize(10,10);
                JPanel p = new JPanel();

                bm.addActionListener(this);
                bd.addActionListener(this);
                bs.addActionListener(this);
                ba.addActionListener(this);
                b9.addActionListener(this);
                b8.addActionListener(this);
                b7.addActionListener(this);
                b6.addActionListener(this);
                b5.addActionListener(this);
                b4.addActionListener(this);
```

```java
            b3.addActionListener(this);
            b2.addActionListener(this);
            b1.addActionListener(this);
            b0.addActionListener(this);
            be.addActionListener(this);
            beq.addActionListener(this);
            beq1.addActionListener(this);


            p.add(t);
            p.add(ba);
            p.add(b1);
            p.add(b2);
            p.add(b3);
            p.add(bs);
            p.add(b4);
            p.add(b5);
            p.add(b6);
            p.add(bm);
            p.add(b7);
            p.add(b8);
            p.add(b9);
            p.add(bd);
            p.add(be);
            p.add(b0);
            p.add(beq);
            p.add(beq1);

            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            p.setBackground(Color.pink);

            // add panel to frame
            add(p);
            setSize(235, 235);
            setVisible(true);
        }

        public void actionPerformed(ActionEvent e)
{
            if(e.getSource()==b1)
                    t.setText(t.getText().concat("1"));
            if(e.getSource()==b2)
                    t.setText(t.getText().concat("2"));
            if(e.getSource()==b3)
                    t.setText(t.getText().concat("3"));
            if(e.getSource()==b4)
                    t.setText(t.getText().concat("4"));
            if(e.getSource()==b5)
                    t.setText(t.getText().concat("5"));
            if(e.getSource()==b6)
                    t.setText(t.getText().concat("6"));
```

```java
if(e.getSource()==b7)
        t.setText(t.getText().concat("7"));
if(e.getSource()==b8)
        t.setText(t.getText().concat("8"));
if(e.getSource()==b9)
        t.setText(t.getText().concat("9"));
if(e.getSource()==b0)
        t.setText(t.getText().concat("0"));
if(e.getSource()==be)
        t.setText(t.getText().concat("."));

if(e.getSource()==ba)
{

        a=Double.parseDouble(t.getText());
        operator=1;
        t.setText("");
}
if(e.getSource()==bs)
{
        a=Double.parseDouble(t.getText());
        operator=2;
        t.setText("");
}
if(e.getSource()==bm)
{
        a=Double.parseDouble(t.getText());
        operator=3;
        t.setText("");
}
if(e.getSource()==bd)
{
        a=Double.parseDouble(t.getText());
        operator=4;
        t.setText("");
}
if(e.getSource()==beq1)
{
        b=Double.parseDouble(t.getText());
        switch(operator)
        {
                case 1: result=a+b;
                        break;
                case 2: result=a-b;
                        break;
                case 3: result=a*b;
                        break;
                case 4: result=a/b;
                        break;
                default: result=0;
        }
```

```
                    t.setText(""+result);
            }

        if(e.getSource()==beq)
            t.setText("");

}
public static void main(String args[])
{
        calculatorNew cal=new calculatorNew();
}
}
```
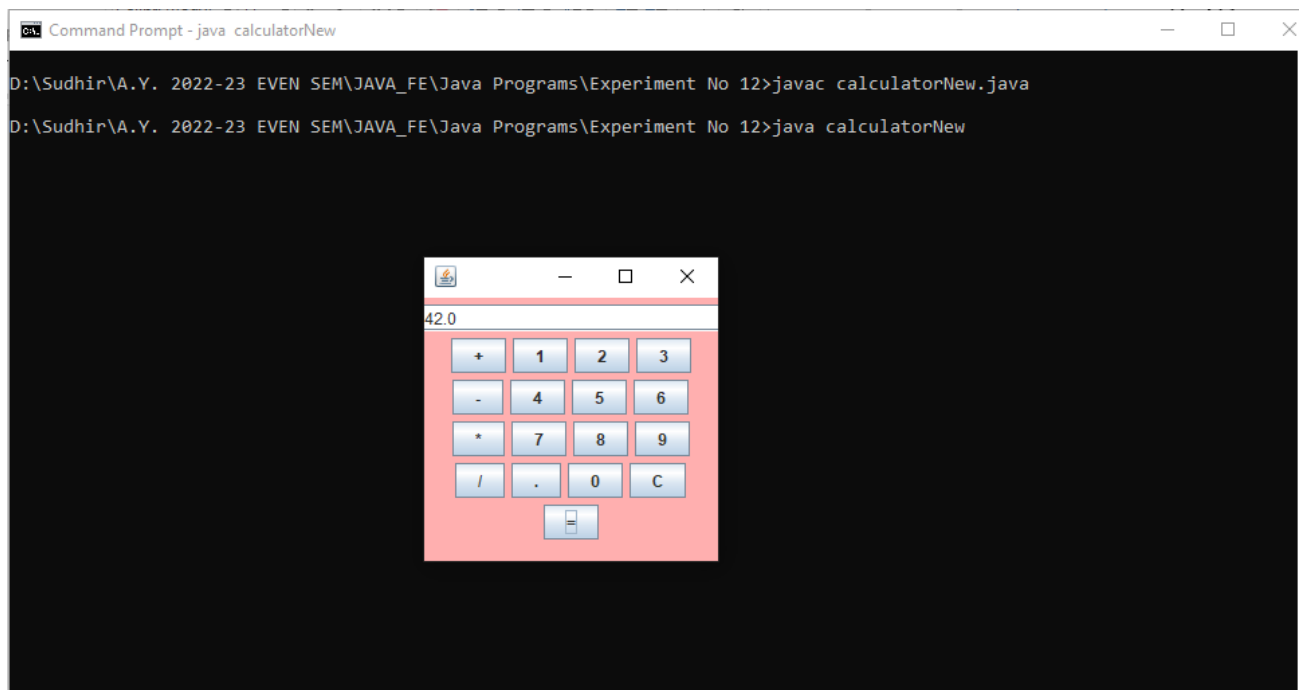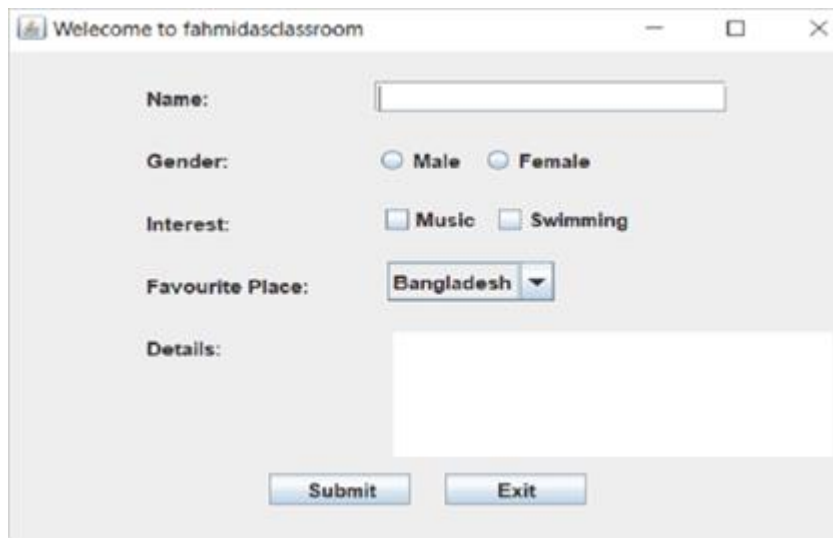
OUTPUT

3. **Display the selected fields in Details after submit button is clicked**

Welecome to fahmidasclassroom

Name:

Gender: ○ Male   ○ Female

Interest: ☐ Music ☐ Swimming

Favourite Place: Bangladesh ▼

Details:

Submit   Exit

Code:

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

class Form extends JFrame implements ActionListener
{
        JLabel name,gen,interest,place,details;
         JTextField tname;
        JRadioButton male, female;
        JComboBox cplace;
        JButton submit,exit;
         JTextArea tadd;
         JCheckBox music,swim;
ButtonGroup gengp;

        public Form()
        {
                setTitle("Form");
                setBounds(200, 80, 800, 800);
                setDefaultCloseOperation(EXIT_ON_CLOSE);
                setResizable(false);
                setLayout(null);
                name = new JLabel("Name");
                name.setFont(new Font("Arial", Font.PLAIN, 15));
                name.setSize(100, 20);
                name.setLocation(100, 100);
                add(name);

                tname = new JTextField();
```

```java
tname.setFont(new Font("Arial", Font.PLAIN, 15));
tname.setSize(190, 20);
tname.setLocation(200, 100);
add(tname);

gen = new JLabel("Gender");
gen.setFont(new Font("Arial", Font.PLAIN, 15));
gen.setSize(100, 20);
gen.setLocation(100, 150);
add(gen);

 male = new JRadioButton("Male");
 male.setFont(new Font("Arial", Font.PLAIN, 15));
male.setSelected(true);
male.setSize(80, 20);
male.setLocation(200, 150);
add(male);

female = new JRadioButton("Female");
 female.setFont(new Font("Arial", Font.PLAIN, 15));

female.setSize(80, 20);
female.setLocation(350, 150);
add(female);

 gengp = new ButtonGroup();
 gengp.add(male);
 gengp.add(female);

interest = new JLabel("Interest");
interest.setFont(new Font("Arial", Font.PLAIN, 15));
interest.setSize(100, 20);
interest.setLocation(100, 200);
add(interest);

music = new JCheckBox("Music");
 music.setFont(new Font("Arial", Font.PLAIN, 15));
 music.setSize(100, 20);
 music.setLocation(200, 200);
 add(music);

swim = new JCheckBox("Swim");
 swim.setFont(new Font("Arial", Font.PLAIN, 15));
 swim.setSize(100, 20);
 swim.setLocation(350, 200);
 add(swim);


place = new JLabel("Fav Place");
place.setFont(new Font("Arial", Font.PLAIN, 15));
place.setSize(100, 20);
```

```java
            place.setLocation(100, 250);
            add(place);
             cplace = new JComboBox();
             cplace.setFont(new Font("Arial", Font.PLAIN, 15));
             cplace.setSize(150, 20);
             cplace.setLocation(200, 250);
            add( cplace);
            cplace.addItem("India");
            cplace.addItem("USA");
            cplace.addItem("Bhutan");
            cplace.addItem("Srilanka");
            cplace.addItem("Maldives");
            details = new JLabel("Details");
            details.setFont(new Font("Arial", Font.PLAIN, 15));
            details.setSize(100, 20);
            details.setLocation(100, 300);
            add(details);
            tadd = new JTextArea();
            tadd.setFont(new Font("Arial", Font.PLAIN, 15));
            tadd.setSize(200, 200);
             tadd.setLocation(200, 300);
            tadd.setLineWrap(true);
            tadd.setEditable(false);
            add(tadd);
            submit = new JButton("Submit");
            submit.setFont(new Font("Arial", Font.PLAIN, 15));
            submit.setSize(100, 20);
            submit.setLocation(150, 550);
            submit.addActionListener(this);
            add(submit);
            exit = new JButton("Reset");
            exit.setFont(new Font("Arial", Font.PLAIN, 15));
            exit.setSize(100, 20);
            exit.setLocation(270, 550);
            exit.addActionListener(this);
            add(exit);
            setVisible(true);
    }

    public void actionPerformed(ActionEvent e)
    {
            if(e.getSource() == submit)
                            {
                            String data = "Name : " + tname.getText() + "\n" +
                            " Gender : " +(male.isSelected()==true?"Male":"Female") + "\n" +
                            " Interests : "+ (music.isSelected()==true?"Music ":"")+
                            (swim.isSelected()==true?"Swimming":"") +"\n" +
                            " Favorite Place : " + cplace.getItemAt(cplace.getSelectedIndex());

                            tadd.setVisible(true);
                            tadd.setText(data);
```

```
                                tadd.setEditable(false);
                              }

                else if(e.getSource() == exit)
                        {
                        tadd.setText("");
                        }
        }
}
class Forms {
        public static void main(String[] args) throws Exception
        {
                Form f = new Form();
        }
}
```

OUTPUT