1. **Program to enter Student details and find highest mark**

```
import java.util.Scanner;
class four
{
int i,m;
int n[]=new int[5];
int mark[]=new int[5];
String name[]=new String[5];
Scanner in=new Scanner(System.in);
void read()
{
System.out.println("Enter the details");
for(i=0;i<5;i++)
{
n[i]=in.nextInt();
mark[i]=in.nextInt();
name[i]=in.nextLine();
}  }
void sort()
{
m=mark[0];
for(i=1;i<5;i++)
{
m=Math.max(mark[i],m);
}
for(i=0;i<5;i++)
{
if(m==mark[i])
{
System.out.println("Highest scored one is");
System.out.println("class no"+n[i]+""+"Mark:"+ mark[i]+""+"Name:"+name[i]);
}
}}
void display()
{
System.out.println("List of students");
for(i=0;i<5;i++)
{
System.out.println("classno:"+n[i]+""+"Mark: "+mark[i]+""+" Name: "+name[i]);
}   }
public static void main(String args[])
{
four f=new four();
f.read();
f.display();
f.sort();
}}
```

```
C:\Users\RAJITH\Desktop\java>java four
Enter the details of id,mark and name of five student
1 56 manu
2 57 vinu
3 67 raju
4 99 riju
5 100 maya
List of students
classno: 1 Mark: 56 Name:  manu
classno: 2 Mark: 57 Name:  vinu
classno: 3 Mark: 67 Name:  raju
classno: 4 Mark: 99 Name:  riju
classno: 5 Mark: 100 Name:  maya
Highest scored one is
class no 5 Mark: 100 Name:  maya
```

2. Program to demonstrate use of command line arguments to initialize values to member variables in a class and to display them. (Eg : A class containing clno,name , engmark, mathsmark ,totalmark)

```
class student
{
int clno;
String studname;
int engmark,mathsmark,totalmark;

student(int a, String b, int c,int d)
{
clno=a;
studname=b;
engmark=c;
mathsmark=d;
totalmark=c+d;
}
void display()
{
System.out.println("The details of student are");
System.out.println("Class Number: " + clno);
System.out.println("Name: " + studname );
System.out.println("Mark1: " +engmark);
System.out.println("Mark2: " + mathsmark);
System.out.println("Total Mark: "+totalmark);
}
public static void main(String args[])
{ if (args.length>3)
{student st1=new student(Integer.parseInt(args[0]),args[1],Integer.parseInt(args[2
]),Integer.parseInt(args[3]));
```

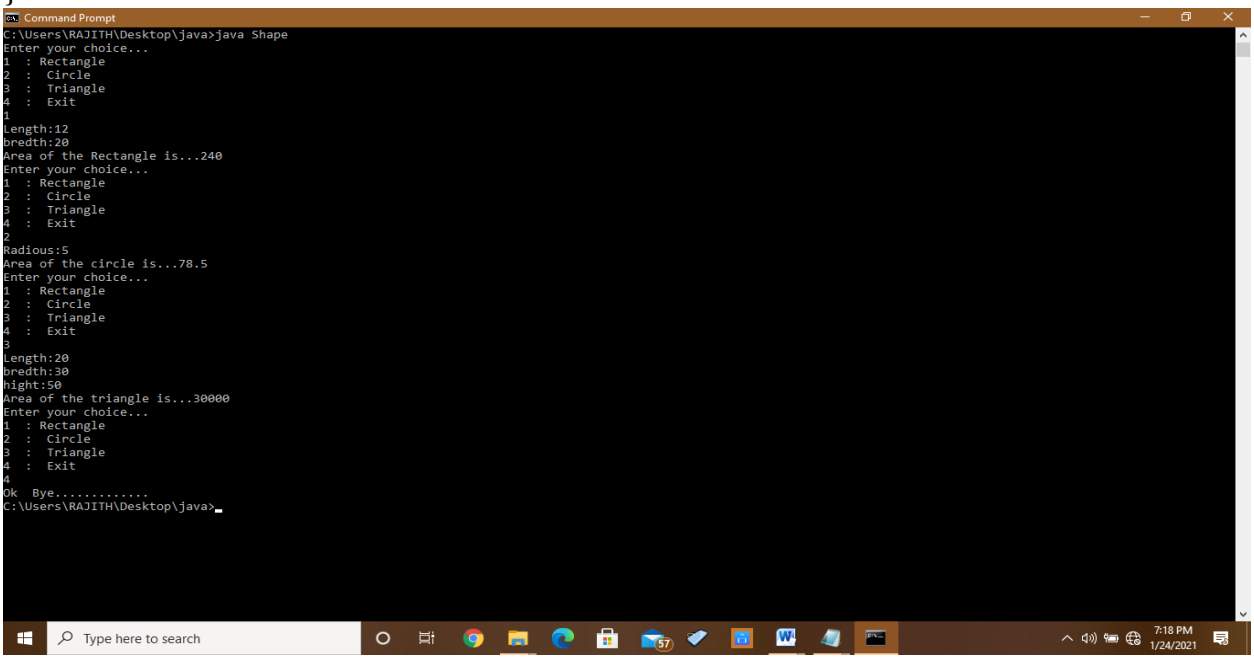
```
    st1.display();}
    else
    System.out.println("Reexecute by providing 4 arguments");
    }
    }
```

```
D:\Java\jdk1.6.0_45\bin>javac student.java

D:\Java\jdk1.6.0_45\bin>java student 1 ABIN  98 97
The details of student are
Class Number1
NameABIN
Mark1: 98
Mark2: 97
Total Mark: 195
```

3. Program to find the area of different shapes using method overloading

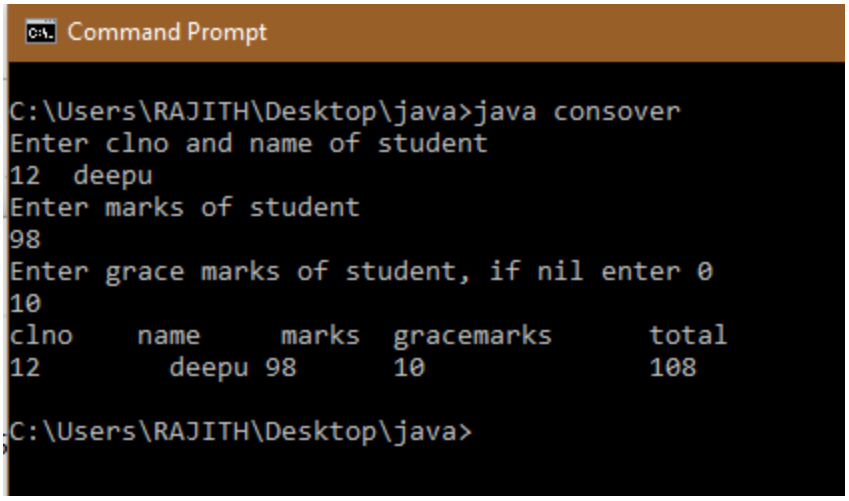
```
import java.io.*;
class Area
{
  int area;
  void calc(int a,int b,int c)
   {
     area=a*b*c;
     System.out.println("Area of the triangle is..."+area);
   }
  void calc(int p,int q)
   {
    area=p*q;
    System.out.println("Area of the Rectangle is..."+area);
   }
  void calc(int x)
  {
    double areas=3.14*(x*x);
   System.out.println("Area of the circle is..."+areas);
   }
}
class Shapes
{
 public static void main(String args[])throws IOException
   {
    int ch,l,b,h;
    Area obj=new Area();
    do
    {
       System.out.println("Enter your choice...");
       System.out.println("1  : Rectangle");
       System.out.println("2  :  Circle");
       System.out.println("3  :  Triangle");
       System.out.println("4  :  Exit");
```

```
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        ch=Integer.parseInt(br.readLine());
        switch(ch)
         {
            case 1:
                                System.out.print("Length:");
                                l=Integer.parseInt(br.readLine());
                                 System.out.print("bredth:");
                                b=Integer.parseInt(br.readLine());
                                obj.calc(l,b);
                                break;
             case 2:            System.out.print("Radious:");
                                int r=Integer.parseInt(br.readLine());
                                obj.calc(r);
                                break;
              case 3:           System.out.print("Length:");
                                l=Integer.parseInt(br.readLine());
                                 System.out.print("bredth:");
                                b=Integer.parseInt(br.readLine());
                                 System.out.print("hight:");
                                h=Integer.parseInt(br.readLine());
                                obj.calc(l,b,h);
                                break;
               case 4:          System.out.print("Ok  Bye.....");
                                break;
             default:          System.out.print("Wrong choice:");
                                break;

              }
       }while(ch!=4);
   }
}
```



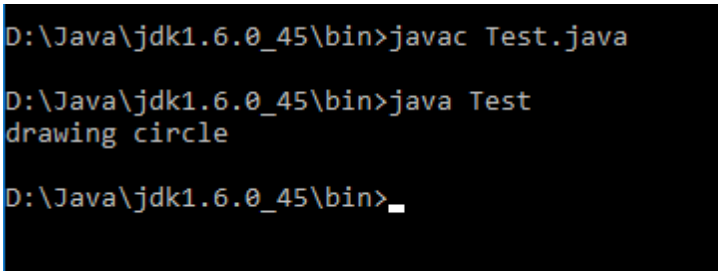
4. Constructor Overloading

```
import java.util.*;
class consover
{
int clno,marks,grace,total;
String name;
consover(int a,String c,int b)
{
clno=a;
marks=b;
name=c;
grace=0;
total=b;}
consover(int a1,String c1,int b1,int d1)
{
clno=a1;
marks=b1;
name=c1;
grace=d1;
total=marks+grace;
}
void display()
{
System.out.println("clno\tname\t marks\tgracemarks\ttotal");
 System.out.println(clno+"\t"+name+"\t"+ marks +"\t"+ grace + "\t\t" +total);
}


public static void main(String args[])
{
int a,b,c;
String name;
Scanner s2=new Scanner(System.in);

System.out.println("Enter clno and name of student");
a=s2.nextInt();
name=s2.nextLine();
System.out.println("Enter marks of student");
b=s2.nextInt();
System.out.println("Enter grace marks of student, if nil enter 0");
c=s2.nextInt();
 consover o1;
if(c==0)
{o1=new consover(a,name,b);} else

{o1=new consover(a,name,b,c);}

o1.display();
}}
```



5. .Abtract class and method

```
abstract class Shape
{
abstract void draw();
}

class Rectangle extends Shape
{
void draw()
{
System.out.println("drawing rectangle");
}
}
class Circle1 extends Shape{
void draw()
{
System.out.println("drawing circle");
}
}

class Test
{
public static void main(String args[])
{
Shape s=new Circle1();
s.draw();
}
}
```



6. Method overriding.

```
class eight
{
void display()
{
System.out.println("hello, I belongs to base class");
}
}
class nine extends eight
{
void display()
{
System.out.println("Hello, I belongs to derived class");
}

public static void main(String args[])
{
nine n=new nine();
n.display();
}
}
```

```
D:\Java\jdk1.6.0_45\bin>javac nine.java

D:\Java\jdk1.6.0_45\bin>java nine
Hello, I belongs to derived class
```

7. Program to implement Dynamic Method Dispatch

```
class ABC
{
   void callme()
   {
      System.out.println("Inside ABC's callme method");
   }
}

class BCD extends ABC
{

   void callme()
   {
      System.out.println("Inside BCD's callme method");
   }
}
```

```
class CDE extends ABC
{
   void callme()
   {
      System.out.println("Inside CDE's callme method");
   }
}


class Dispatch
{
   public static void main(String args[])
   {

      ABC a = new ABC();


      BCD b = new BCD();


      CDE c = new CDE();


      ABC ref;

     // now ref refers to a ABC object
      ref = a;

     // calling ABC's version of callme()
      ref.callme();

      // now ref refers to a BCD object
      ref = b;

      // calling BCD's version of callme()
      ref.callme();

      // now ref refers to a CDE object
      ref = c;

      // calling CDE's version of callme()
      ref.callme();
   }
}
```

```
D:\Java\jdk1.6.0_45\bin>javac Dispatch.java

D:\Java\jdk1.6.0_45\bin>java Dispatch
Inside ABC's callme method
Inside BCD's callme method
Inside CDE's callme method
```

8. Program to implement multiple inheritance using interface

```
import java.io.*;
interface Sports
 {
  double sprtwt=6.0f;
  void put();
 }
class Student
 {
   int rno;
   void show1(int x)
   {
    rno=x;
    System.out.println("rollno="+rno);
   }
 }
class Test extends Student
 {
   int m1,m2;
   String st=new String("operating system");
   String st1=new String("computer network");
   void show2(int p, int q)
    {
     m1=p;
     m2=q;
     System.out.println("sub1="+st);
     System.out.println("mark1="+m1);
     System.out.println("sub2="+st1);
     System.out.println("mark2="+m2);
    }
 }
class Result extends Test implements Sports
 {
  public void put()
   {
    System.out.println("sports weightage mark="+sprtwt);
   }
  void total()
  {
   double tot=m1+m2+sprtwt;
   System.out.println("total mark:"+tot);
```

```
  }
}
class Interfacetest
 {
   public static void main(String args[])
    {
      Result r=new Result();
      r.show1(101);
      r.show2(98,95);
      r.put();
      r.total();
    }
}
```

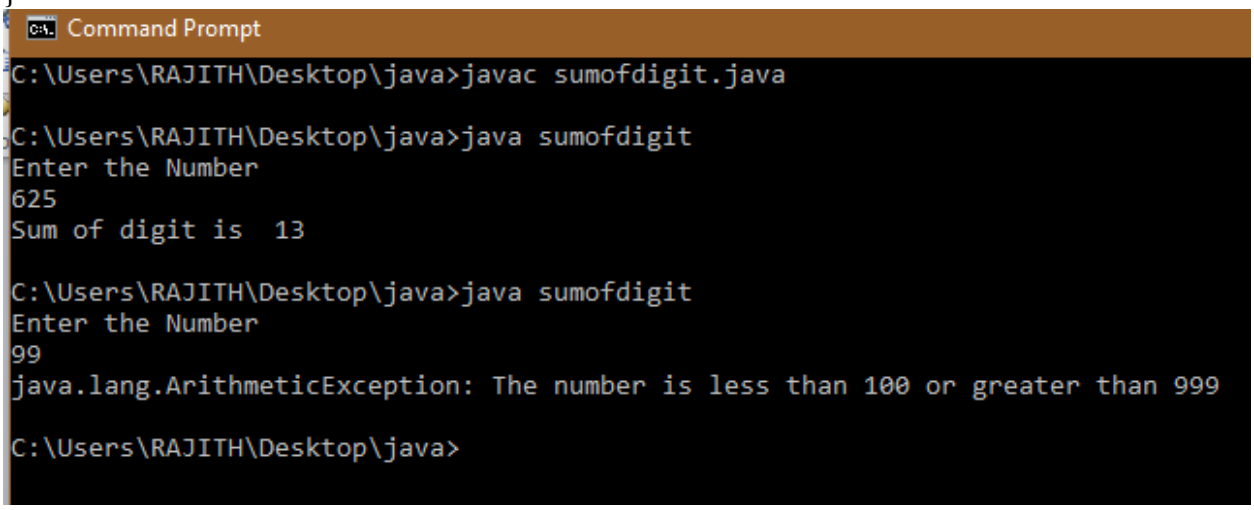
Output

```
C:\jdk1.3\bin>javac Interfacetest.java

C:\jdk1.3\bin>java  Interfacetest
rollno=101
sub1=operating system
mark1=98
sub2=computer network
mark2=95
sports weightage mark=6.0
total mark:199.0
```

9. **Write a Java program to print sum of digits of a given number. If the number is less than 100 or greater than 999 then throw a user defined exception.**

```
import java.io.*;
import java.util.*;
class sumofdigit
{
int sum,n;
Scanner in=new Scanner(System.in);
void read()
{
        System.out.println("Enter the Number");
        n=in.nextInt();
        try
        {
                if(n<100 || n>999)
                {
            throw new ArithmeticException("The number is less than 100 or greater than 999");
                }
        sum = 0;
        while (n != 0)
                {
                sum = sum + n % 10;
```

```
                n = n / 10;
        }
                System.out.println("Sum of digit is  "+sum);
        }
        catch(ArithmeticException e)
        {
                System.out.println(e);
        }
}
public static void main(String args[])
  {
        sumofdigit t =new sumofdigit();
        t.read();
       }
}
```

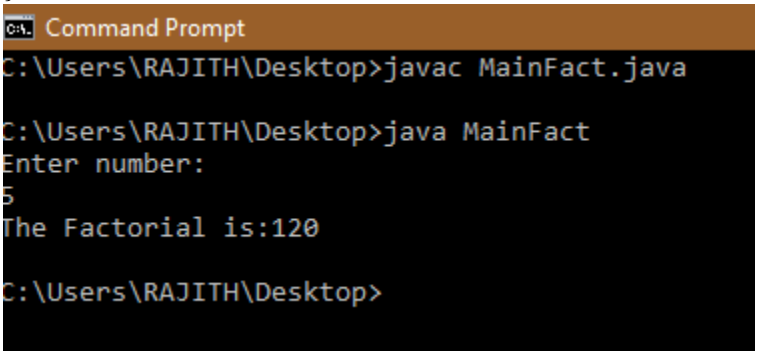


10. Write a Java Program to create a class Factorial for computing factorial of number under a user defined package fact.

```
package Facto;
public class Factorial
 {
   public int fact(int x)
    {
      int f=1;
     for(int i=1;i<=x;i++)
        f=f*i;
     return(f);
    }
}
```

```
import Facto.*;
import java.io.*;
class MainFact
 {
  public static void main(String args[])
    {
      BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
      try
       {
```

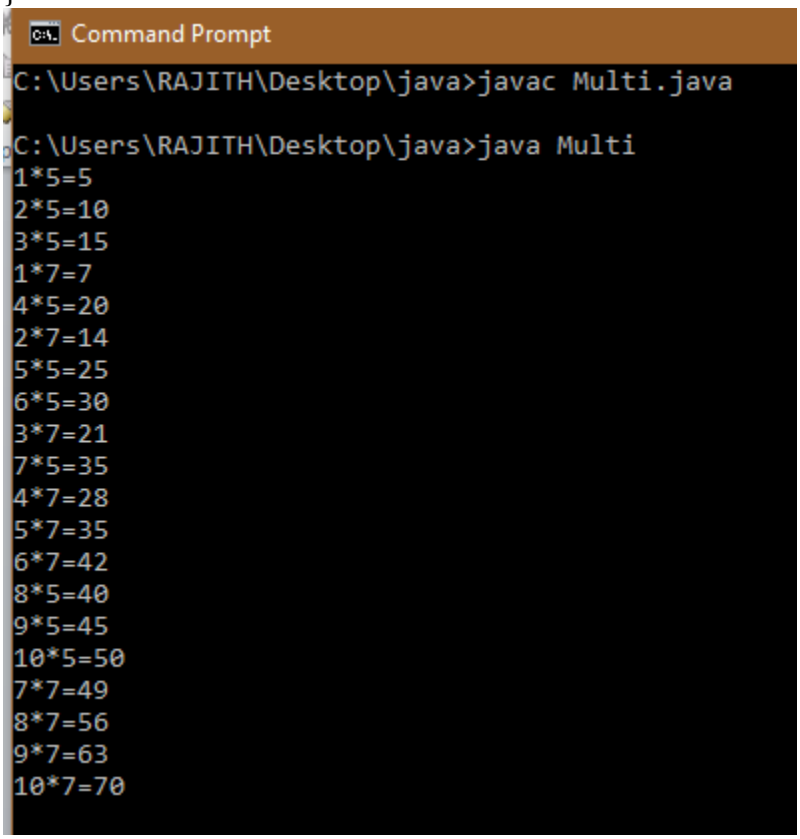
```
          System.out.println("Enter number:");
          int n=Integer.parseInt(br.readLine());
          Factorial obj=new Factorial();
          int f=obj.fact(n);
                System.out.println("The Factorial is:"+ f);
        }
   catch(Exception e)
   {}
  }
}
```



11. Program to print multiplication table of 5,7 using multithreading

```
class A extends Thread
{
  public void run()
    {
     for(int i=1;i<=10;i++)
      {
         int k=i*5;
         System.out.println(i+"*"+"5="+k);
      }
    }
}
class B extends Thread
{
  public void run()
   {
    for(int i=1;i<=10;i++)
      {
        int k=i*7;
        System.out.println(i+"*"+"7="+k);
      }
   }
}
class Multi
{
  public static void main(String args[])
  {
    new A().start();
    new B().start();
      }
```

}



12. Write a program to sort given strings

```
import java.io.*;
class Sname
 {
    public static void main(String args[])
      {
        int n,i;
        String temp;
        String str[]=new String[10];
        try
        {
          BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
          System.out.println("Enter the limit :");
          n=Integer.parseInt(br.readLine());
          System.out.println("Enter names:");
          for(i=0;i<n;i++)
            {
              str[i]=br.readLine();
            }
          for(i=0;i<n;i++)
            {
             for(int j=i+1;j<n;j++)
                {
                   if(str[i].compareTo(str[j])>0)
```

```
                {
                        temp=str[i];
                        str[i]=str[j];
                        str[j]=temp;
                 }
              }
           }
           System.out.println("Sorted names are");
           for(i=0;i<n;i++)
            {
               System.out.println(str[i]);
             }
          }
         catch(Exception e)
          {
            System.out.println("Error");
          }
      }
}
```

```
C:\jdk1.3\bin>javac Sname.java

C:\jdk1.3\bin>java Sname
Enter the limit :
3
Enter names:
Anupama
Devika
Arya
Sorted names are
Anupama
Arya
Devika
```

13. Human Face

```
import java.applet.*;
import java.awt.*;
public class San extends Applet
{
  public void paint(Graphics g)
  {
    g.drawArc(120,120,20,15,-180,-180);
    g.drawArc(155,120,20,15,-180,-180);
    g.drawOval(93,100,120,100);
    g.fillOval(125,130,15,10);
    g.fillOval(160,130,15,10);
    g.drawOval(143,140,10,20);
    g.drawOval(134,168,30,10);
    g.drawArc(137,165,25,10,180,180);
    g.drawOval(85,140,10,20);
    g.drawOval(215,140,10,20);
  }
}
/*<applet code="San.class" width=500 height=500>
 </applet>*/
```

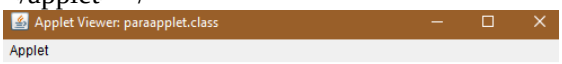
14. Star

```
import java.applet.*;
import java.awt.*;
public class star extends Applet
{
public void paint(Graphics g)
{
int x[]={60,110,135,160,210,176,190,135,80,95,60};
int y[]={60,60,10,60,60,100,160,130,160,100,60};
int num=10;
g.setColor(Color.red);
g.fillPolygon(x,y,num);
}
}
/*<applet code="star.class" height=1200 width=1200>
</applet>*/
```

15. Passing Parameter to an applet and setting Font

```
import java.applet.*;
import java.awt.*;
public class paraapplet extends Applet
{
```

```
public void paint(Graphics g)
{
g.setFont (new Font ("TimesRoman", Font.BOLD , 20));
g.setColor(Color.RED);
g.drawString(getParameter("nam"),100,100);
}
}
/* <applet code="paraapplet.class" height=500 width=500>
<param name="nam" value="Welcome to Java">
</applet> */
```



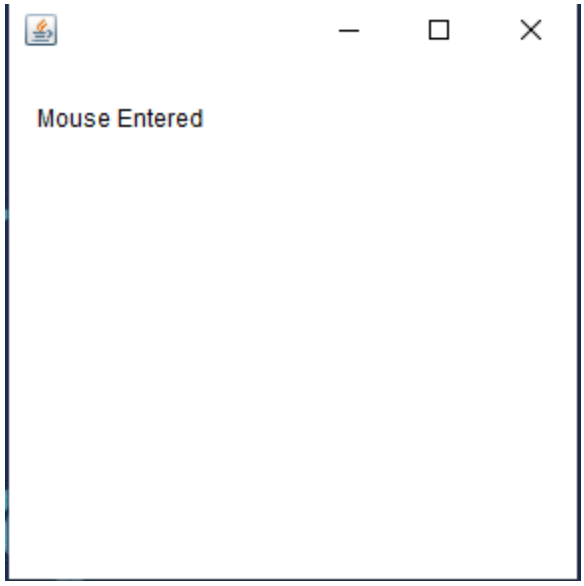
Welcome to Java

Applet started.

16. Mouse Event

```
import java.awt.*;
import java.awt.event.*;
public class MouseExample  implements MouseListener
{
   Frame f
   Label l;
   MouseExample()
{

      f=new Frame();
      l=new Label();
      l.setBounds(20,50,100,20);
      f.add(l);
      f.setSize(300,300);
      f.setLayout(null);
      f.setVisible(true);
      f.addMouseListener(this);
   }
   public void mouseClicked(MouseEvent e)
   {
      l.setText("Mouse Clicked");
   }
   public void mouseEntered(MouseEvent e)
   {
      l.setText("Mouse Entered");
   }
   public void mouseExited(MouseEvent e)
   {
      l.setText("Mouse Exited");
   }
   public void mousePressed(MouseEvent e)
  {
      l.setText("Mouse Pressed");
```

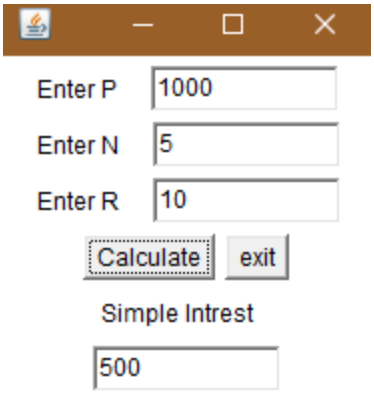
```
    }
    public void mouseReleased(MouseEvent e)
    {
       l.setText("Mouse Released");
    }
public static void main(String[] args) {
    new MouseExample();
}
}
```



17. AWT program to calculate simple interest

```
import java.awt.*;
import java.awt.event.*;
class thirteen implements ActionListener
{
        Frame f1;
        Panel p1;
        TextField t1,t2,t3,t4;
        Label l1,l2,l3,l4;
        Button b1,b2;
        thirteen()
        {
                f1= new Frame();
                p1=new Panel();
                l1=new Label("Enter P");
                t1=new TextField(10);
                l2=new Label("Enter N");
                t2=new TextField(10);
                l3=new Label("Enter R");
                t3=new TextField(10);
```

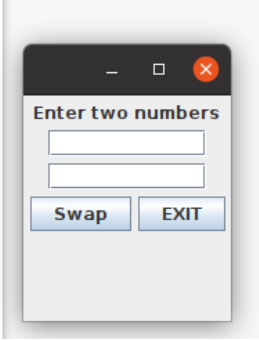
```
		l4=new Label("Simple Intrest");
		t4=new TextField(10);
		b1=new Button("Calculate");
		b2=new Button("exit");
		p1.add(l1);
		p1.add(t1);
		p1.add(l2);
		p1.add(t2);
		p1.add(l3);
		p1.add(t3);
		p1.add(b1);
		p1.add(b2);
		p1.add(l4);
		p1.add(t4);
		f1.add(p1);
		f1.setSize(200,300);
		f1.setVisible(true);
		b1.addActionListener(this);
		b2.addActionListener(this);
	}


	public void actionPerformed(ActionEvent e)
	{
		if(e.getSource()==b1)
		{
			int p,n,r,si;
			p=Integer.parseInt(t1.getText());
			n=Integer.parseInt(t2.getText());
			r=Integer.parseInt(t3.getText());
			si=(p*n*r)/100;
			String s=Integer.toString(si);
			t4.setText(s);
		}
		if(e.getSource()==b2)
		{
			System.exit(0);
		}
	}

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



18. Swapping of two numbers using Swing

```
import javax.swing.*;
import java.awt.event.*;
class thirteen implements ActionListener
{
        JFrame f1;
        JPanel p1;
        JLabel l1;
        JTextField t1,t2;
        JButton b1,b2;
        thirteen()
        {
                f1=new JFrame();
                p1=new JPanel();
                l1=new JLabel("Enter two numbers");
                t1=new JTextField(10);
                t2=new JTextField(10);
```

```
        b1=new JButton("Swap");
        b2=new JButton("EXIT");
        p1.add(l1);
        p1.add(t1);
        p1.add(t2);
        p1.add(b1);
        p1.add(b2);
        f1.add(p1);
        f1.setSize(150,200);
        f1.setVisible(true);
        b1.addActionListener(this);
        b2.addActionListener(this);
}
public void actionPerformed(ActionEvent e)
{
        if(e.getSource()==b1)
        {
                String s1=t1.getText();
                String s2=t2.getText();
                t1.setText(s2);
                t2.setText(s1);
        }
        if(e.getSource()==b2)
    {
        System.exit(0);
    }
```

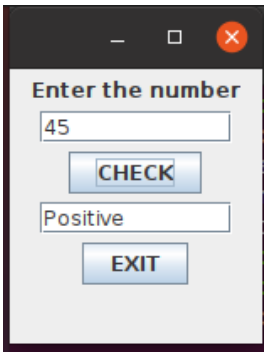


```
        }
        public static void main(String args[])
        {
                thirteen tt=new thirteen();
        }
}
```

19. Program to check whether the number is positive or negative using swing

```
import javax.swing.*;
import java.awt.event.*;
class positive implements ActionListener
{
        JFrame f1;
        JPanel p1;
        JLabel l1;
        JTextField t1,t2;
        JButton b1,b2;
        positive()
        {
                f1=new JFrame();
                p1=new JPanel();
                l1=new JLabel("Enter the number");
                t1=new JTextField(10);
                t2=new JTextField(10);
                b1=new JButton("CHECK");
                b2=new JButton("EXIT");
                p1.add(l1);     p1.add(t1);     p1.add(b1);     p1.add(t2);     p1.add(b2);
```

```
        f1.add(p1);
        f1.setSize(150,200);
        f1.setVisible(true);
        b1.addActionListener(this);
        b2.addActionListener(this);
}
public void actionPerformed(ActionEvent e)
{
        if(e.getSource()==b1)
        {
                int n1=Integer.parseInt(t1.getText());
                if(n1<0)
                        t2.setText("Negative");
                else if(n1>0)
                        t2.setText("Positive");
                else
                        t2.setText("Zero");
        }
        if(e.getSource()==b2)
    {
        System.exit(0);
    }
}
public static void main(String args[])
{
        positive tt=new positive();
}
```



}

20. Simple calculator

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

class calculator implements ActionListener
{

        Frame f=new Frame();
        Label l1=new Label("First Number");
        Label l2=new Label("Second Number");
        Label l3=new Label("Result");
        TextField t1=new TextField();
        TextField t2=new TextField();
        TextField t3=new TextField();
        Button b1=new Button("Add");
        Button b2=new Button("Sub");
        Button b3=new Button("Mul");
        Button b4=new Button("Div");
        Button b5=new Button("Cancel");
        calculator()
        {
                l1.setBounds(50,100,100,20);
                l2.setBounds(50,140,100,20);
                l3.setBounds(50,180,100,20);
```

```
        t1.setBounds(200,100,100,20);
        t2.setBounds(200,140,100,20);
        t3.setBounds(200,180,100,20);
        b1.setBounds(50,250,50,20);
        b2.setBounds(110,250,50,20);
        b3.setBounds(170,250,50,20);
        b4.setBounds(230,250,50,20);
        b5.setBounds(290,250,50,20);
        f.add(l1);          f.add(l2);          f.add(l3);
        f.add(t1);          f.add(t2);          f.add(t3);
        f.add(b1);          f.add(b2);          f.add(b3);
        f.add(b4);          f.add(b5);
        b1.addActionListener(this);
        b2.addActionListener(this);
        b3.addActionListener(this);
        b4.addActionListener(this);
        b5.addActionListener(this);
        f.setLayout(null);
        f.setVisible(true);
        f.setSize(400,350);
}
public void actionPerformed(ActionEvent e)
{
        int n1=Integer.parseInt(t1.getText());
        int n2=Integer.parseInt(t2.getText());
        if(e.getSource()==b1)
        {
```

```
                t3.setText(String.valueOf(n1+n2));
            }
            if(e.getSource()==b2)
            {
                t3.setText(String.valueOf(n1-n2));
            }
            if(e.getSource()==b3)
            {
                t3.setText(String.valueOf(n1*n2));
            }
            if(e.getSource()==b4)
            {
                t3.setText(String.valueOf(n1/n2));
            }
            if(e.getSource()==b5)
            {
                System.exit(0);
            }
        }
public static void main(String args[])
{
new calculator();
}
}
```

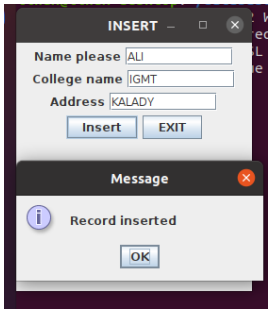
21. Insert values into database

```
import java.awt.*;
```

```
import java.awt.event.*;
import java.sql.*;
import javax.swing.*;
class insert implements ActionListener
{
   JFrame f1;
   JPanel p1;
   JLabel l1,l2,l3;
   JTextField t1,t2,t3;
   JButton b1,b2;
   Connection con;
   PreparedStatement s;
   Statement s1;
   ResultSet r;
   insert()
   {
      f1=new JFrame("INSERT");

      p1=new JPanel();
      l1=new JLabel("Name please");
      l2=new JLabel("College name");
      l3=new JLabel("Address");
      t1=new JTextField(10);
      t2=new JTextField(10);
      t3=new JTextField(10);
      b1=new JButton("Insert");
      b2=new JButton("EXIT");
```

```
        p1.add(l1);p1.add(t1);
        p1.add(l2);p1.add(t2);
        p1.add(l3);p1.add(t3);
        p1.add(b1);p1.add(b2);
        f1.add(p1);
        f1.setSize(250,300);
        f1.setVisible(true);
        connect();
        b1.addActionListener(this);
        b2.addActionListener(this);
    }
    void connect()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/bca","DEEPTHI","password");
            s1=con.createStatement();
        }
        catch(Exception rt)
        {
            System.out.println(rt);
        }
    }
             public void actionPerformed(ActionEvent e)
             {
                        try
```

```
        {
            if(e.getSource()==b1)
            {
                s=con.prepareStatement("insert into student values(?,?,?)");
                s.setString(1,t1.getText());
                s.setString(2,t2.getText());
                s.setString(3,t3.getText());
                s.execute();
                JOptionPane.showMessageDialog(f1,"Record inserted");
                t1.setText(" ");
                t2.setText(" ");
                t3.setText(" ");
                s.close();
            }

            if(e.getSource()==b2)
            {
                System.exit(0);
            }
        }
        catch(Exception rt)
        {
            System.out.println(rt);
        }
    }
public static void main(String args[])
{
```



```
            new insert();


    }
}
```

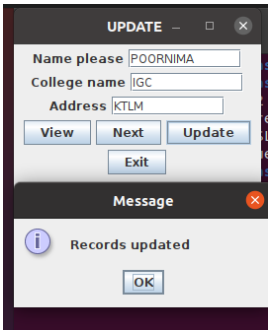
22. Update the values in the Database

```
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
import javax.swing.*;
class update implements ActionListener
{
    JFrame f1;
    JPanel p1;
    JLabel l1,l2,l3;
    JTextField t1,t2,t3;
    JButton b1,b2,b3,b4;
    Connection con;
    PreparedStatement s;
    Statement s1;
    ResultSet r;
    update()
    {
        f1=new JFrame("UPDATE");
        p1=new JPanel();
        l1=new JLabel("Name please");
        l2=new JLabel("College name");
        l3=new JLabel("Address");
```

```
    t1=new JTextField(10);
    t2=new JTextField(10);
    t3=new JTextField(10);
    b1= new JButton("View");
    b2= new JButton("Next");
    b3= new JButton("Update");
    b4= new JButton("Exit");
    p1.add(l1);p1.add(t1);
    p1.add(l2);p1.add(t2);
    p1.add(l3);p1.add(t3);
    p1.add(b1);p1.add(b2);p1.add(b3);p1.add(b4);
    f1.add(p1);
    f1.setSize(250,300);
    f1.setVisible(true);
    connect();
    b1.addActionListener(this);
    b2.addActionListener(this);
    b3.addActionListener(this);
    b4.addActionListener(this);

}
void connect()
{
    try
    {
        Class.forName("com.mysql.jdbc.Driver");
        con=DriverManager.getConnection("jdbc:mysql://localhost:3306/bca","DEEPTHI","password");
```

```
        s1=con.createStatement();
    }
    catch(Exception rt)
    {
        System.out.println(rt);
    }
}
public void actionPerformed(ActionEvent e)
{
        try
        {
                if(e.getSource()==b1)
                {
                        r=s1.executeQuery("select * from student");
                        if(r.next())
                        {
                                t1.setText(r.getString(1));
                                 t2.setText(r.getString(2));
                                t3.setText(r.getString(3));
                        }
                }
                if(e.getSource()==b2)
                {
                        if(r.next())
                        {
                                t1.setText(r.getString(1));
                                t2.setText(r.getString(2));
```

```
                    t3.setText(r.getString(3));


                }
                }
    if(e.getSource()==b3)
    {
                s=con.prepareStatement("update student set college= ?,address=? where name= ?");
                s.setString(1,t2.getText());
                s.setString(2,t3.getText());
                s.setString(3,t1.getText());
                s.execute();
                JOptionPane.showMessageDialog(f1,"Records updated");
                t1.setText("");
                t2.setText("");
                t3.setText("");
    }


    if(e.getSource()==b4)
    {
                System.exit(0);
    }


}
catch(Exception rt)
{
    System.out.println(rt);
}
```



```
  }
public static void main(String args[])
{
   new update();

}
}
```

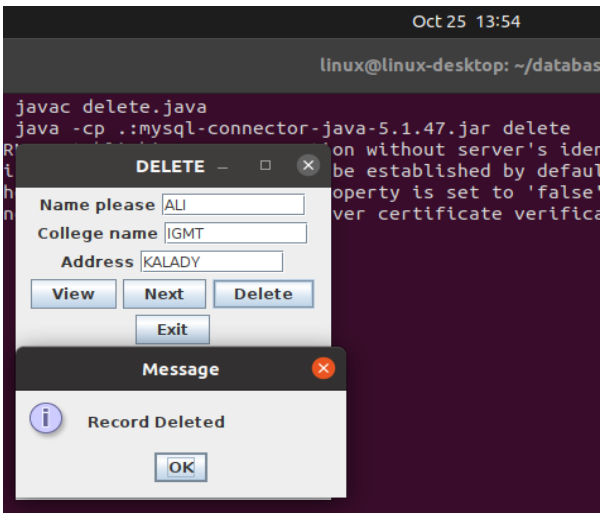
23. Delete data from database

```
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
import javax.swing.*;
class delete implements ActionListener
{
   JFrame f1;
   JPanel p1;
   JLabel l1,l2,l3;
   JTextField t1,t2,t3;
   JButton b1,b2,b3,b4;
   Connection con;
   PreparedStatement s;
   Statement s1;
   ResultSet r;

   delete()
   {
```

```
    f1=new JFrame("DELETE");
    p1=new JPanel();
    l1=new JLabel("Name please");
    l2=new JLabel("College name");
    l3=new JLabel("Address");
    t1=new JTextField(10);
    t2=new JTextField(10);
    t3=new JTextField(10);
    b1= new JButton("View");
    b2= new JButton("Next");
    b3= new JButton("Delete");
    b4= new JButton("Exit");
    p1.add(l1);p1.add(t1);
    p1.add(l2);p1.add(t2);
    p1.add(l3);p1.add(t3);
    p1.add(b1);p1.add(b2);p1.add(b3);p1.add(b4);
    f1.add(p1);
    f1.setSize(250,300);
    f1.setVisible(true);
    connect();
    b1.addActionListener(this);
    b2.addActionListener(this);
    b3.addActionListener(this);
    b4.addActionListener(this);
}
void connect()
{
```

```
      try
      {
         Class.forName("com.mysql.jdbc.Driver");
 con=DriverManager.getConnection("jdbc:mysql://localhost:3306/bca","DEEPTHI","password");
         s1=con.createStatement();
      }
      catch(Exception rt)
      {
         System.out.println(rt);
      }
   }
public void actionPerformed(ActionEvent e)
{
try
{
           if(e.getSource()==b1)
           {
                    r=s1.executeQuery("select * from student");
           if(r.next())
           {
                    t1.setText(r.getString(1));
                     t2.setText(r.getString(2));
                    t3.setText(r.getString(3));
           }
      }
           if(e.getSource()==b2)
           {
```

```
            if(r.next())
            {
                    t1.setText(r.getString(1));
                    t2.setText(r.getString(2));
                    t3.setText(r.getString(3));
            }
    }
     if(e.getSource()==b3)
    {
       s=con.prepareStatement("delete from student where name= ?");
       s.setString(1,t1.getText());
       s.execute();
       JOptionPane.showMessageDialog(f1,"Record Deleted");
       t1.setText("");
       t2.setText("");
       t3.setText("");
    }
    if(e.getSource()==b4)
    {
       System.exit(0);
    }
}           catch(Exception rt)
            {
               System.out.println(rt);
            }
}
```



```
public static void main(String args[])
{
    new delete();
  }
   }
```