# JAVA PROGRAMS WITH OUTPUT


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# Program no 1

**1) WAP using nested switch case which covers the following operators with expressions :**

**(a) Mathematical**
**(b) Logical**
**(c) Relational**

**PROGRAMME:- A**

```
public class Switch{


    public static void main(String []args){


    System.out.println("1.ARITHMATIC
OPERATORS\n2.LOGICAL OPERATORS\n3.RELATIONAL
OPERATORS\n\t\t(Choice=1)\n"); //Main menu

    int choice=1;

    int a=10,b=5,c;

    switch(choice)   //Main switch case

    {
```

```
        case 1 :       //arithmatic operators

System.out.println("1.Addition\n2.Subtraction\n3.Multiplicati
on\n4.Division\nVALUES OF a AND b ARE 10 AND 5
RESPECTIVELY\n\t\t(Choice=3)\n");
        int aChoice=3;
        switch(aChoice)     //Nested switch case
        {

          case 1:   //addition
          c=a+b;
          System.out.println("Addtion of a and b is "+ c+"\n");
          break;


          case 2:   //subtraction
          c=a-b;
          System.out.println("Subtraction of a and b is "+
c+"\n");
          break;
```

```
        case 3:   //Multiplication
        c=a*b;
        System.out.println("Multiplication of a and b is "+
c+"\n");
        break;

        case 4:   //division
        c=a/b;
        System.out.println("Divisiom of a and b is "+ c+"\n");
        break;

        default:
        System.out.println("Please enter right choice");
      }
      break;

      case 2 :      //logical operator
      System.out.println("1.Logical AND\n2.LOgical OR\n3.NOT
Operator\n");
```

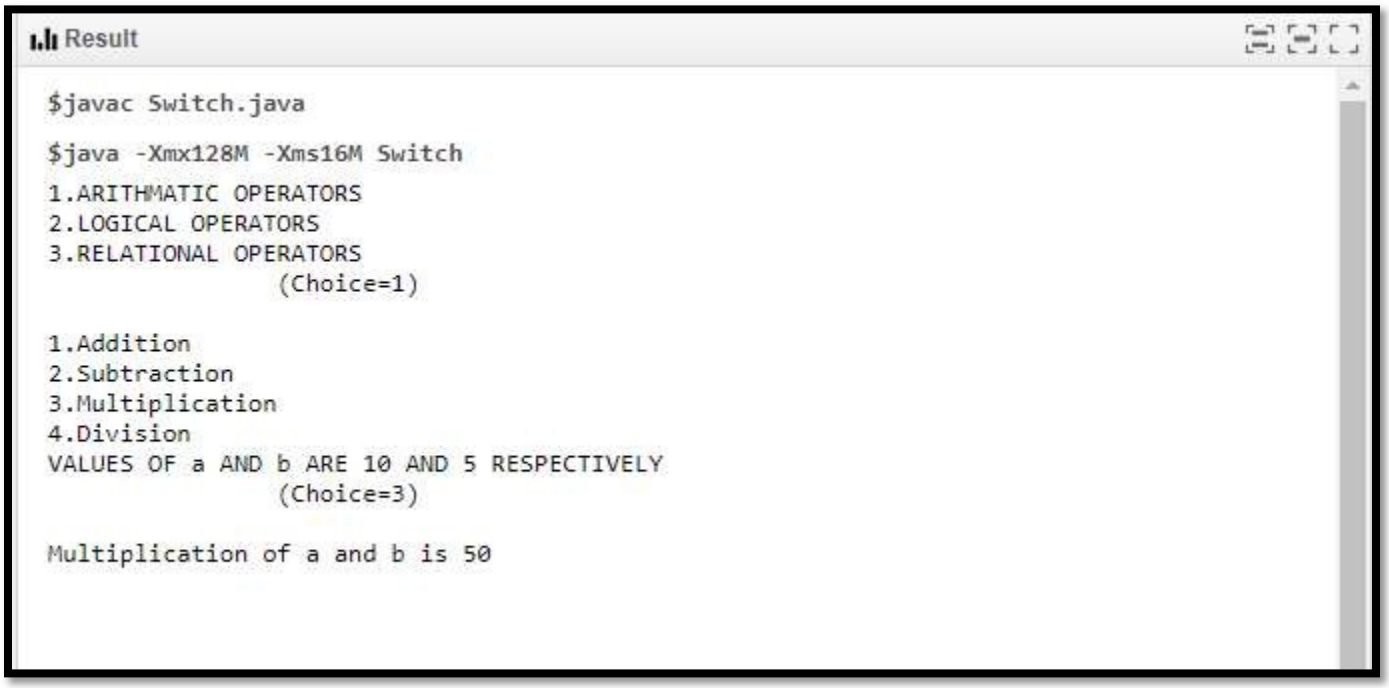
```
int lchoice=1;
switch(lchoice)
{
   case 1:    // AND operator
   int age=25;
   if(age>18 && age<50)
     System.out.println("(AGE=25)\nYou are eligible for
this job.\n");
   break;

   case 2:   //or operator
   int salary=3000;
   if(salary<5000 || salary>2000)
     System.out.println("(SALARY=3000)\n The job is
offordable.\n");
   break;

   case 3:    //not operator
   int Age=20;
```

```
        if(Age!=18 || Age>18)
            System.out.println("(Age=20)\nYou are not eligible
for voting\n");
        break;



        default:
        System.out.println("Please enter right choice");
      }
       break;

 case 3:    //Relational operator
       System.out.println("1.Greater than operator\n2.Less
than operator\n3.Greater than or equal operator\n4.Less
than or equal operator\n");
       int lChoice=4;
       switch(lChoice)
       {
          case 1:    //greater than operator
```

```
        int aage=20;
        if(aage > 18)
        System.out.println("(Age=20) You are eligible for
having a driving licens");
        break;

        case 2:    //less than operator
        int A=10;
        if(A < 18)
        System.out.println("(Age=10) You are not eligible for
having a driving licens");
        break;

        case 3:    //greater than equal to
        int p=18;
        if(p >= 18)
        System.out.println("(Age=18) You are eligible for
having a driving licens");
        break;
```

```
        case 4:    //less than or equal to
        int q=13;
        if(q <= 18)
        System.out.println("(Age=13) You are not eligible for
having a driving licens");
        break;

        default:
        System.out.println("Please enter right choice");
      }
      break;

      default:
      System.out.println("Please enter right choice");
    }
    }
}
```

## OUTPUT:



# PROGRAM : 2

**WAP to print following patterns :**

```
(a        *****
           ****
            ***
             **
              *

(b)            *
              **
             ***
            ****
           *****
            ****
             ***
              **
               *
```

**Programme:-**

```
public class Pattern{


    public static void main(String []args){
        System.out.println("PATTERN NO: 1");


        for (int i= 5; i>= 1; i--)
```

```
{
for (int j=5; j>i;j--)
{
System.out.print(" ");
}
for (int k=1;k<=i;k++)
{
System.out.print("*");
}
System.out.println("");
}

System.out.println("\n\nPATTERN NO: 2");

  for (int i = 1; i <= 5; i++)
   {
      for (int j = 5; j > i; j--)
      {
```

```
        System.out.print(" ");
    }
    for (int k = 1; k <= i; k++)
    {
        System.out.print("*");
    }
    System.out.println();
}
for (int i = 1; i <= 5-1; i++)
{
    for (int j = 1; j <= i; j++)
    {
        System.out.print(" ");
    }
    for (int k = 5-1; k >= i; k--)
    {
        System.out.print("*");
    }
```

```
            System.out.println();
        }
    }
}
```

**OUTPUT:**

# Program : 3

**3) WAP to find**
**(a) palendrome**
**(b) fibonacci series**
**(c) leap year**
**(d) even/odd number**

**Programmer:**

**(a) palindrome :**

```
public class Palindrome{


    public static void main(String []args){


     System.out.println("----------Palindrome ----------\n");
     int r,sum=0,temp;
     int n=345;
     temp=n;
     while(n>0){
       r=n%10;
```

```
        sum=(sum*10)+r;
        n=n/10;
      }
      if(temp==sum)
        System.out.println("palindrome number ");
      else
        System.out.println("not palindrome");
    }
}
```

**OUTPUT :**

## (b) fibonacci series

```
public class Fibonacci{

     public static void main(String []args){

          System.out.println("---------------
Fibonacci series---------------------\n");
          int n1=0,n2=1,n3, ,count=10;
          System.out.print(n1+" "+n2);

         for(i=2;i<count;++i)
         {
               n3=n1+n2;
               System.out.print(" "+n3);
               n1=n2;
               n2=n3;
         }
     }
}
```

OUTPUT:

Result

```
$javac Fibonacci.java
$java -Xmx128M -Xms16M Fibonacci
---------------Fibonacci series--------------

0 1 1 2 3 5 8 13 21 34
```

**c) leap year**

```
public class LeapYear{


    public static void main(String []args){


      System.out.println("\n----------Leap year----------
\n(year=2020)");
      int year=2020;
      if ((year % 4 == 0) && (year % 100!= 0))
            System.out.println("Entered year is a leap year");
      else if(year%400 == 0)
                System.out.println("Entered year is leap year");
      else
            System.out.println("Entered year is year is not a leap
year");


    }
}
```

OUTPUT:


**(d) even/odd number**

```
public class EvenOdd{

    public static void main(String []args){

        System.out.println("\n----------Even/Odd number----------
-----\n(num=10)");
        int num=10;
        if(num % 2 == 0)
          System.out.println(num + " is even");
       else
          System.out.println(num + " is odd");
```

```
    }
}
```

**OUTPUT:**

## PROGRAM : 4

**4) WAP to perform following matrix operations :**

**(a) addtion**
**(b) transpose**
**(c) multiplication**

```
//PROGRAM NO: 4

public class Matrix{

    public static void main(String []args){           //main function
        int mat1[][]={ {1,2},{3,8} } , mat2[][]={ {3,8},{6,9}};
        //function call
        add(mat1,mat2);
        multiply(mat1,mat2);
        trans(mat1);
        }
```

```
    public static void add(int arr1[][],int arr2[][]){
    //funtion for matrix addition


    System.out.println("---------------MTRIX ADDITION-------------
\n");
    int result[][] = new int[2][2];
    int i,j;
        for(i=0;i<2;i++){
            for(j=0;j<2;j++){
                result[i][j]=arr1[i][j]+arr2[i][j];
                System.out.println(result[i][j] );


            }
            System.out.println();
        }
    }


    public static void multiply(int ary1[][],int ary2[][]){
    //function for matrix multiplication
```

```
        System.out.println("----------------MTRIX Multiplication----------
-----\n");
        int c[][]=new int[2][2];
           for(int i=0;i<2;i++){
                    for(int j=0;j<2;j++){
                            c[i][j]=0;

                            for(int k=0;k<2;k++){
                                    c[i][j]+=ary1[i][k]*ary2[k][j];
                            }

                            System.out.print(c[i][j]+" ");
                    }
                    System.out.println();
                }
        }

        public static void trans(int mat1[][]){          //function for
transpose of matrix
```

```
        System.out.println("-----------------Matric Transpose-----------
--\n");
        int result[][]=new int[2][2];


                    for(int i=0;i<2;i++){
                    for(int j=0;j<2;j++){
                                result[i][j]=mat1[j][i];
                               System.out.println(result[i][j]);
                          }
                    System.out.println();
                    }
        }
}
```

OUTPUT :

Result

```
$javac Matrix.java

$java -Xmx128M -Xms16M Matrix
----------------MTRIX ADDITION--------------

4
10

9
17

----------------MTRIX Multiplication--------------

15 26
57 96
-------------------Matric Transpose--------------

1
3

2
8
```

# Practical No-1

- **Program 1:** Java Program to Design Login Window Using AWT Controls

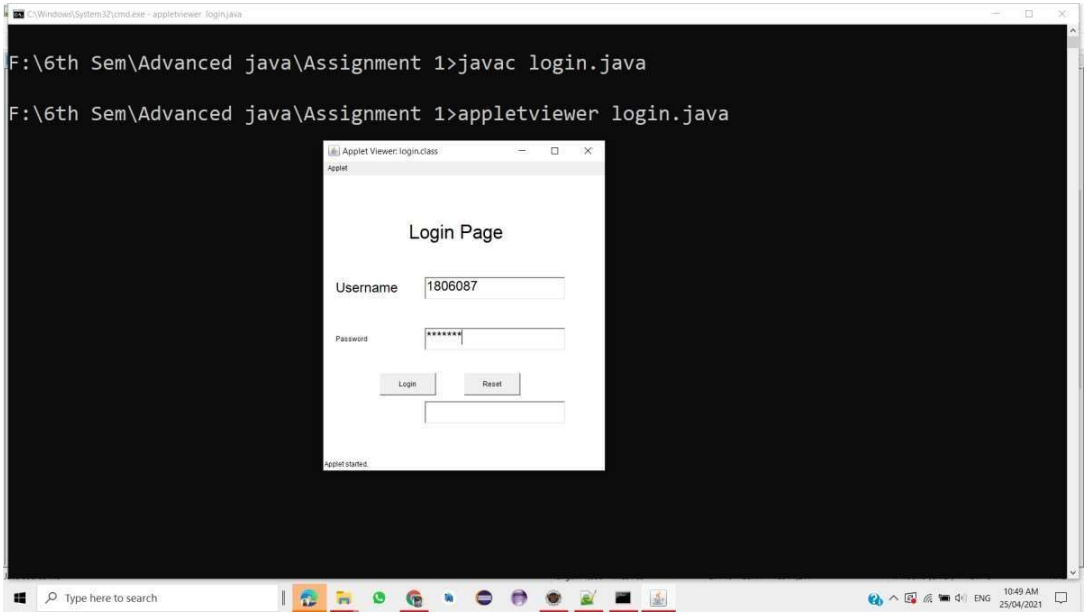
CODE:

```
import java.applet.Applet; import
java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
public class login extends Applet
{
        Label title = new Label("Login Page");
         Label username = new Label("Username");
         Label password = new Label("Password");
         TextField tusername = new TextField(20);
         TextField tpassword = new TextField(10);
         Button loginn = new Button("Login");
         Button reset = new Button("Reset");
```

```
        TextField er = new TextField();
       public void init() {

     setSze(500, 500);     setLayout(null);


        //Setting Bounds
    title.setBounds(150, 50, 200, 100);
username.setBounds(20, 150, 150, 100);
password.setBounds(20, 240, 150, 100);
tusername.setBounds(180, 180, 250, 40);
tpassword.setBounds(180, 270, 250, 40);
loginn.setBounds(100, 350, 100, 40);
reset.setBounds(250, 350, 100, 40);    er.setBounds(180,
400, 250, 40);
    //Setting Fonts
    title.setFont(new Font("Lucida",Font.PLAIN,34));
username.setFont(new Font("Lucida",Font.PLAIN,24));
tusername.setFont(new Font("Lucida",Font.PLAIN,24));
username.setFont(new Font("Lucida",Font.PLAIN,24));
tpassword.setFont(new Font("Lucida",Font.PLAIN,24));
tpassword.setEchoChar('*');      add(username);
add(title);
```

```
    add(password);
add(tusername);
add(tpassword);
add(loginn);
add(reset);
add(er);
setVisible(true);
}
}
/*
<APPLET CODE= login.class WIDTH=500 HEIGHT=500>
</APPLET>
*/
```

# OUTPUT:



- **Program 2:** Java Program to Design Registration Form Using AWT Controls with ActionListener

CODE:

```
import java.applet.Applet; import
java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class Registration extends Applet implements
ActionListener
{
 Label title = new Label(" Registration Page");
  Label username = new Label("Username");
  Label password = new Label("Password");
  TextField tusername = new TextField(20);
  TextField tpassword = new TextField(10);
  Button Registration = new Button(" Registration");
  Button reset = new Button("Reset");   TextField
er = new TextField();
 public void init()
 {
  setSize(500, 500);
  setLayout(null);

  //Setting Bounds
```

```
    title.setBounds(150, 50, 200, 100);
username.setBounds(20, 150, 150, 100);
password.setBounds(20, 240, 150, 100);
tusername.setBounds(180, 180, 250, 40);
tpassword.setBounds(180, 270, 250, 40);
Registration.setBounds(100, 350, 100, 40);
reset.setBounds(250, 350, 100, 40);    er.setBounds(180,
400, 250, 40);
    //Setting Fonts
    title.setFont(new Font("Lucida",Font.PLAIN,34));
username.setFont(new Font("Lucida",Font.PLAIN,24));
tusername.setFont(new Font("Lucida",Font.PLAIN,24));
username.setFont(new Font("Lucida",Font.PLAIN,24));
password.setFont(new Font("Lucida",Font.PLAIN,24));
tpassword.setFont(new Font("Lucida",Font.PLAIN,24));
    tpassword.setEchoChar('*');
add(username);      add(title);
add(password);
add(tusername);
add(tpassword);      add(
Registration);      add(reset);
add(er);      setVisible(true);
     Registration.addActionListener(this);
    reset.addActionListener(this);

 }
          public void actionPerformed(ActionEvent e) {
                // TODO Auto-generated method stub
```

```
            String user = tusername.getText();
String pass = tpassword.getText();
                if(e.getSource()== Registration)
                {
                      if(user.equals("1806087") &&
pass.equals("1806087"))
                      {

                   Frame f1=new Frame("REGISRATION FORM ");
      f1.setVisible(true);
                      f1.setSize(700,700);
                      //Labels
                     Label name = new Label("Full Name :");
                      Label  email  =  new  Label("Email :");
                      Label addr = new Label("Address :");
                      Label gender = new Label("Gender :");
                      Label Dept = new Label("Department :");
                      Label Hobbies = new Label("Hobbies :");
                      TextField tname = new TextField(30);
                      TextField temail = new TextField(20);
                      Checkbox crick = new Checkbox("Cricket");
                      Checkbox footb = new Checkbox("Football");
                      Checkbox tenn = new Checkbox("Tennies");
                      Checkbox read = new Checkbox("Reading");

                  TextArea taddr = new TextArea();
                      CheckboxGroup gen = new CheckboxGroup();
               Checkbox male = new Checkbox("Male",gen,false);
```

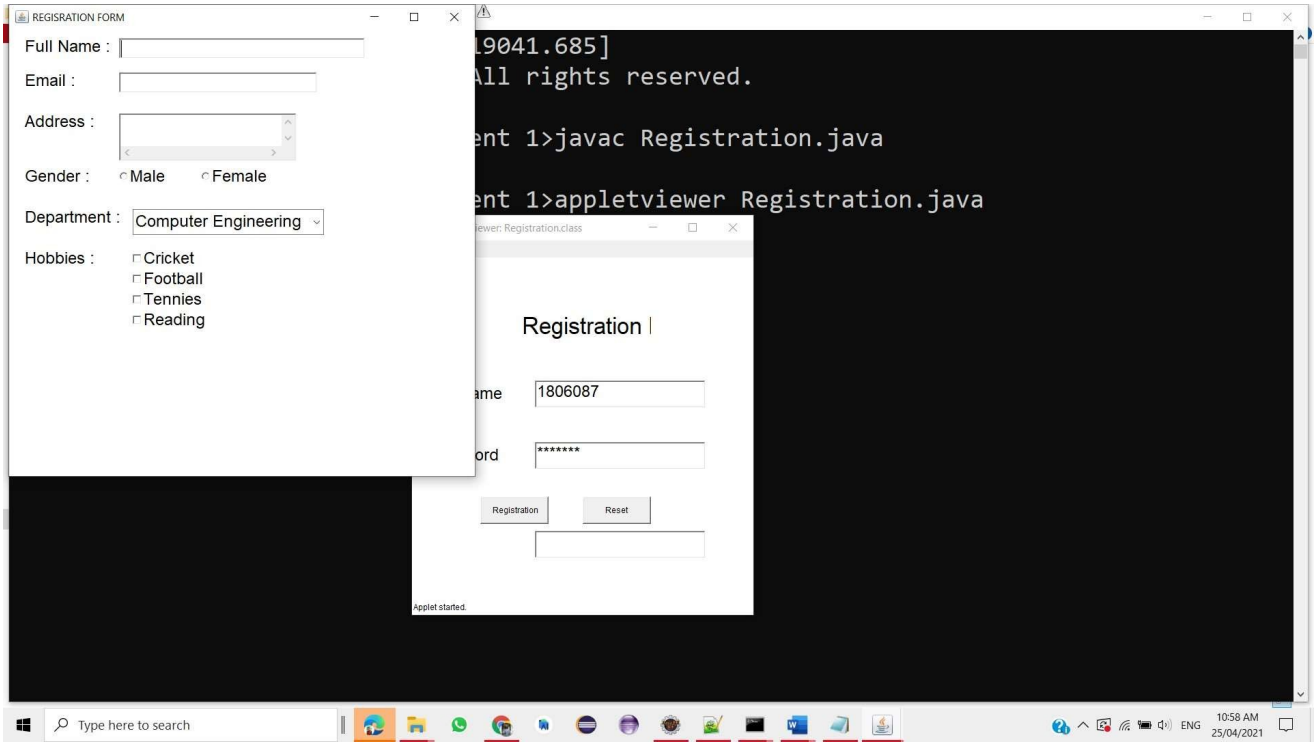
```
                    Checkbox female = new
Checkbox("Female",gen,false);
                Choice department= new Choice();
department.add("Computer Engineering");
department.add("Electrical Engineering");
department.add("Mechanical Engineering");
department.add("EntC Engineering");
department.add("Civil Engineering");
department.add("Information Technology");
                    department.select("Computer Engineering");

                    f1.setLayout(null);
                    //Bounds
                name.setBounds(30,50,140,25);
tname.setBounds(170,50,360,30);
email.setBounds(30,100,100,25);
temail.setBounds(170,100,290,30);
addr.setBounds(30,160,120,25);
taddr.setBounds(170,160,260,70);
gender.setBounds(30,240,120,25);
male.setBounds(170,240,80,25);
female.setBounds(290,240,100,25);
            Dept.setBounds(30,300,140,25);
      department.setBounds(190,300,280,250);
      Hobbies.setBounds(30,360,140,25);
      crick.setBounds(190,360,100,25);
      footb.setBounds(190,390,150,25);
  tenn.setBounds(190,420,150,25);
```

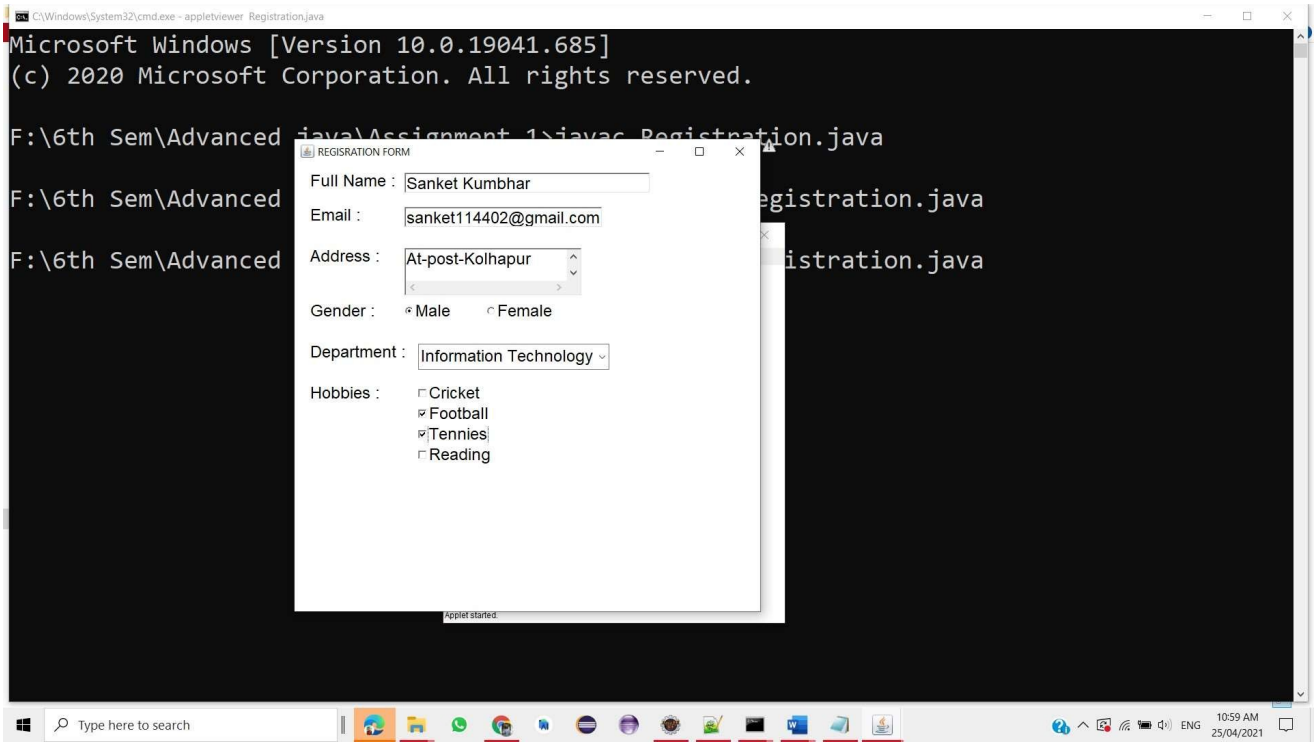
```
        read.setBounds(190,450,150,25);
        //Changing Fonts                name.setFont(new
Font("Lucida",Font.PLAIN,24));
                    tname.setFont(new
Font("Lucida",Font.PLAIN,24));
                      email.setFont(new
Font("Lucida",Font.PLAIN,24));
                    temail.setFont(new
Font("Lucida",Font.PLAIN,24));
                      addr.setFont(new
Font("Lucida",Font.PLAIN,24));
                      taddr.setFont(new
Font("Lucida",Font.PLAIN,24));
                    gender.setFont(new
Font("Lucida",Font.PLAIN,24));
                    male.setFont(new Font("Lucida",Font.PLAIN,24));
                    female.setFont(new
Font("Lucida",Font.PLAIN,24));
 Dept.setFont(new
Font("Lucida",Font.PLAIN,24));
                      department.setFont(new
Font("Lucida",Font.PLAIN,24));
Hobbies.setFont(new
Font("Lucida",Font.PLAIN,24));
                      crick.setFont(new
Font("Lucida",Font.PLAIN,24));
                      footb.setFont(new
Font("Lucida",Font.PLAIN,24));
```

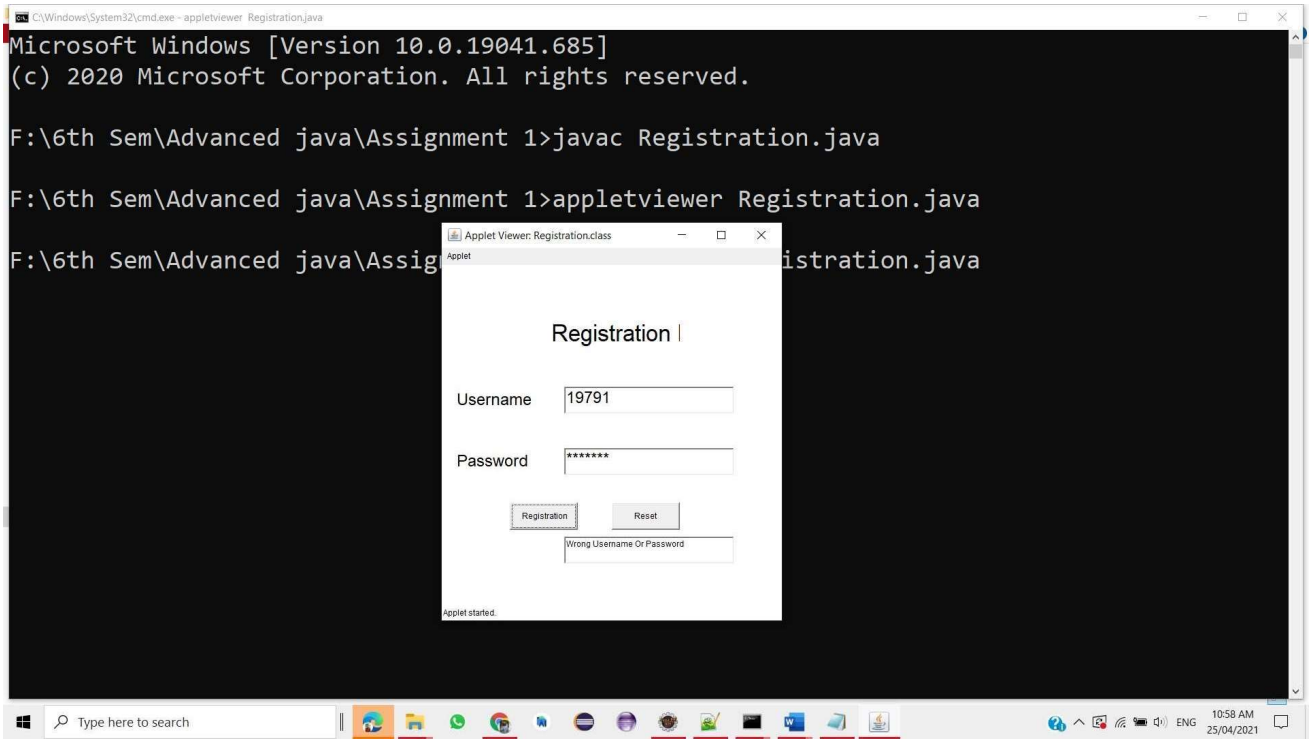
```
                tenn.setFont(new Font("Lucida",Font.PLAIN,24));
                read.setFont(new
Font("Lucida",Font.PLAIN,24));
//adding elements

                f1.add(name);
f1.add(tname);                  f1.add(email);
        f1.add(temail);
f1.add(addr);                   f1.add(taddr);
        f1.add(gender);
f1.add(male);
f1.add(female);                 f1.add(Dept);
        f1.add(department);
f1.add(Hobbies);                f1.add(crick);
        f1.add(footb);
f1.add(tenn);                   f1.add(read);
                }
                else
                {
                        er.setText("Wrong Username Or
Password");
                }
        }
          else if(e.getSource()==reset)
          {
                tusername.setText("");
                tpassword.setText("");
          }
```

```
        }
}
/*
<APPLET CODE= Registration.class WIDTH=500 HEIGHT=500>
</APPLET>
*/
```

# OUTPUT:


REGISRATION FORM
Full Name :
Email :
Address :
Gender : Male Female
Department : Computer Engineering
Hobbies : Cricket Football Tennies Reading
19041.685]
All rights reserved.
ent 1>javac Registration.java
ent 1>appletviewer Registration.java
Registration
1806087
*******
Registration
Reset
Applet started.
Type here to search
ENG
10:58 AM
25/04/2021


Microsoft Windows [Version 10.0.19041.685]
(c) 2020 Microsoft Corporation. All rights reserved.
F:\6th Sem\Advanced
REGISRATION FORM
Full Name : Sanket Kumbhar
Email : sanket114402@gmail.com
Address : At-post-Kolhapur
Gender : Male Female
Department : Information Technology
Hobbies : Cricket Football Tennies Reading
Applet started.
Type here to search
ENG
10:59 AM
25/04/2021


C:\Windows\System32\cmd.exe - appletviewer Registration.java
Microsoft Windows [Version 10.0.19041.685]
(c) 2020 Microsoft Corporation. All rights reserved.
F:\6th Sem\Advanced java\Assignment 1>javac Registration.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Registration.java
F:\6th Sem\Advanced java\Assig istration.java
Applet Viewer: Registration.class
Applet
Registration
Username
19791
Password
*******
Registration
Reset
Wrong Username Or Password
Applet started.
Type here to search
ENG
10:58 AM
25/04/2021

- **Program 3**: Java Program to Design Calculator Using AWT Controls with ActionListener

CODE:

```
import java.applet.Applet; import
java.awt.*; import
java.awt.event.ActionEvent; import
java.awt.event.ActionListener; import
java.util.*;
public class Calculator extends Applet implements ActionListener
{
      TextField disp1,disp2,disp3;
      Button plus,minus,divide,multiply,equalto,clear;
   String num1,num2,results,Operator;
   Double n,n2,result;     public void
init()
      {
          setSize(320,350);
   disp1 = new TextField("0"); disp2
```

```
= new TextField("0"); disp3 = new
TextField("Result here"); plus =
new Button("+");
        minus = new Button("-");        divide = new
Button("/");            multiply = new Button("*");
   equalto = new Button("=");           clear = new
Button("clear");            setLayout(null);
   disp1.setFont(new Font("Lucida",Font.PLAIN,20));
   disp2.setFont(new Font("Lucida",Font.PLAIN,20));
   disp3.setFont(new Font("Lucida",Font.PLAIN,20));
   disp1.setBounds(5,5,300,50);
   disp2.setBounds(5,55,300,50);
   disp3.setBounds(5,110,300,50);
   plus.setBounds(10,190,70,70);
   minus.setBounds(90,190,70,70);
   divide.setBounds(10,270,70,70);
   multiply.setBounds(90,270,70,70);
equalto.setBounds(190,180,70,80);
clear.setBounds(190,270,70,80); add(disp1); add(disp2);
        add(disp3);        add(plus);          add(minus);
```

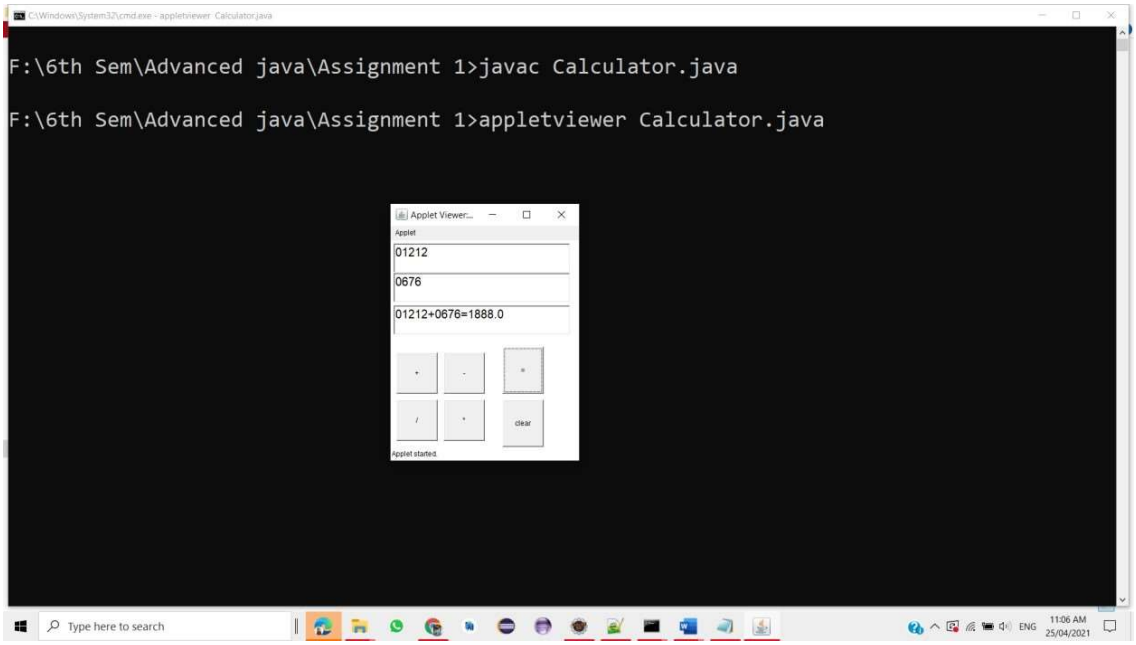
```
add(divide);        add(multiply);          add(equalto);
      add(clear);         plus.addActionListener(this);
minus.addActionListener(this);
divide.addActionListener(this);
multiply.addActionListener(this);
equalto.addActionListener(this);
clear.addActionListener(this);
  }
  @Override public void
  actionPerformed(ActionEvent e) {
        // TODO Auto-generated method stub
        if(e.getSource()== plus)
        {
              num1 = disp1.getText().toString();
           Operator="+";                n =
Double.parseDouble(num1);
num2 = disp2.getText().toString();
n2 = Double.parseDouble(num2);
result = n + n2 ;
        }
```

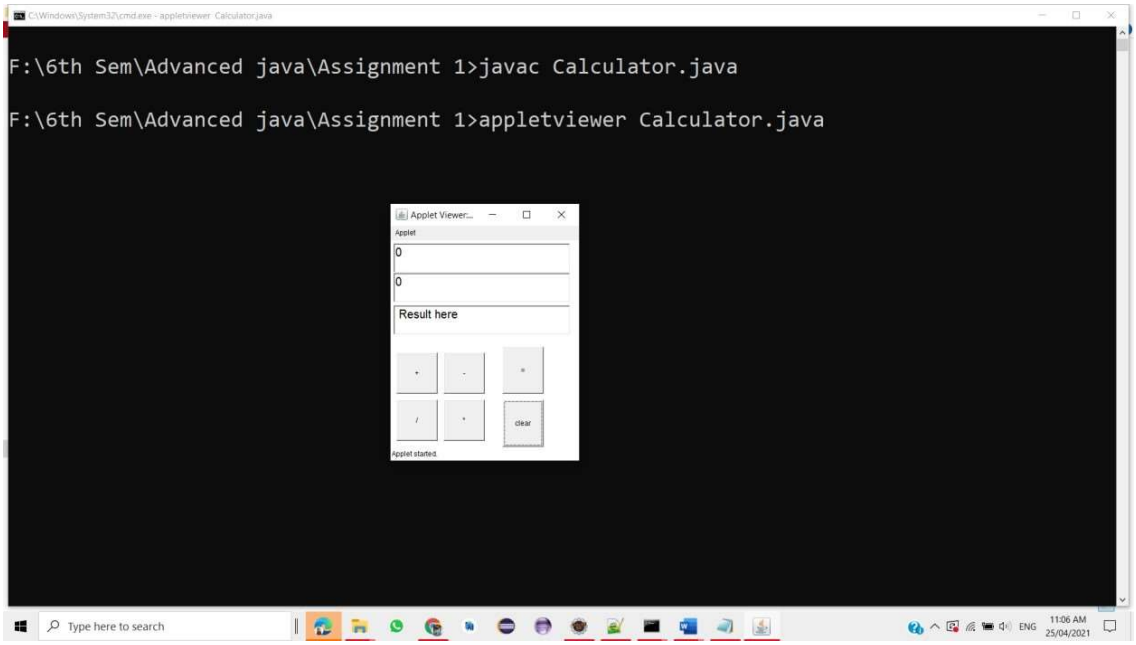
```
            else if(e.getSource()== minus)
            {
                num1 = disp1.getText().toString();
          Operator="-";                  n =
Double.parseDouble(num1);
    num2 = disp2.getText().toString();
    n2  =  Double.parseDouble(num2);
    result = n - n2 ;
            }
            else if(e.getSource()== divide)
            {
                num1 = disp1.getText().toString();
                Operator="/";      n =
            Double.parseDouble(num1);
                num2 = disp2.getText().toString();
          n2 =Double.parseDouble(num2);;
    result = n / n2 ;
            }
            else if(e.getSource()== multiply)
            {
```

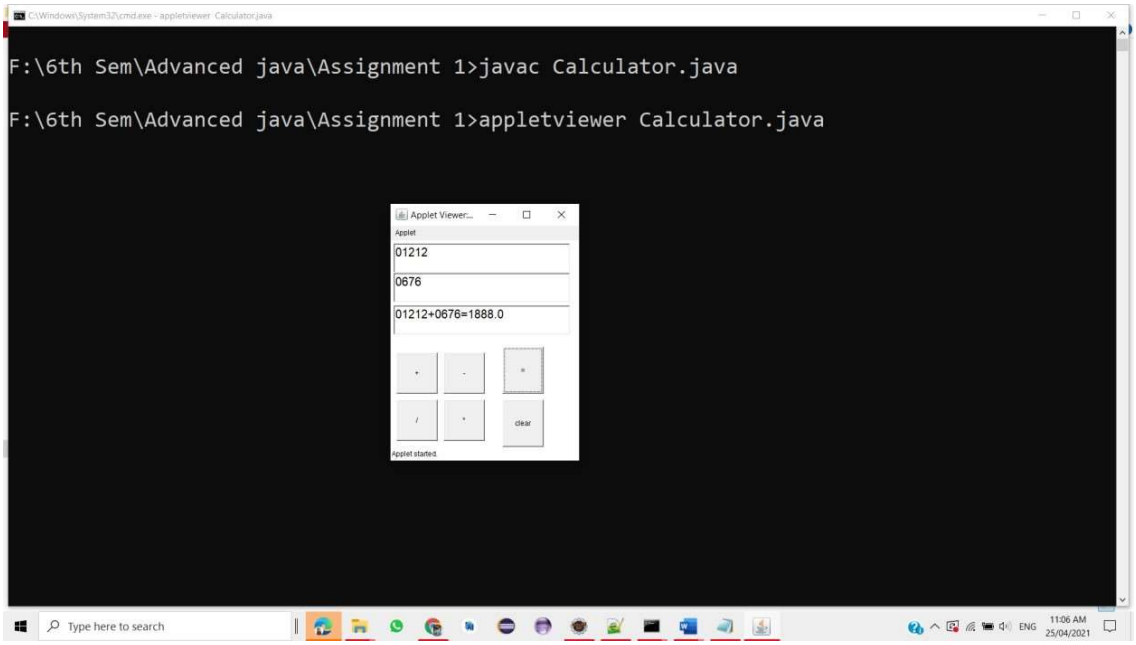
```
            num1 = disp1.getText().toString();
        Operator="*";                n =
Double.parseDouble(num1);
   num2 = disp2.getText().toString();
   n2 =Double.parseDouble(num2);
   result = n * n2 ;
         }
         else if(e.getSource()== equalto)
         {
               results = String.valueOf(result);
   disp3.setText(num1+Operator+num2+"="+resul
                        ts);
         }
         else if(e.getSource()==clear)
         {
            disp1.setText("0");
   disp2.setText("0");
   disp3.setText(" Result here");
         }
     }
```

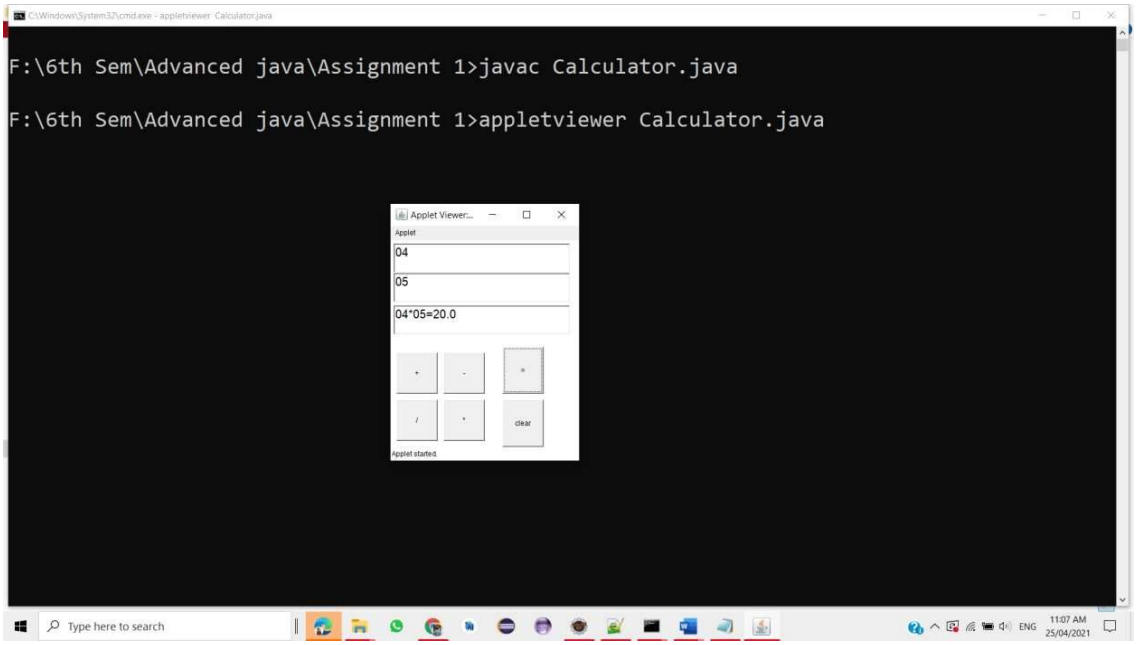
```
}
/*
<applet code = "Calculator.class" width="320"
height="350">
</applet>
*/
```

OUTPUT:


F:\6th Sem\Advanced java\Assignment 1>javac Calculator.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Calculator.java
Applet Viewer:...
Applet
01212
0676
01212+0676=1888.0
clear
Applet started
Type here to search


F:\6th Sem\Advanced java\Assignment 1>javac Calculator.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Calculator.java
Applet Viewer:...
Applet
0
0
Result here
clear
Applet started
Type here to search


F:\6th Sem\Advanced java\Assignment 1>javac Calculator.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Calculator.java
Applet Viewer:...
Applet
01212
0676
01212+0676=1888.0
+
-
=
/
*
clear
Applet started
Type here to search
ENG
11:06 AM
25/04/2021


F:\6th Sem\Advanced java\Assignment 1>javac Calculator.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Calculator.java
Applet Viewer:...
Applet
04
05
04*05=20.0
+
-
=
/
*
clear
Applet started
Type here to search
ENG
11:07 AM
25/04/2021

- **Program 4**: Write a code on following output (Modifying the program to move a ball in response to up/down/left/right buttons, as well as the 4 arrow keys)

CODE:

```
import java.applet.Applet; import
java.awt.*; import
java.awt.event.ActionEvent; import
java.awt.event.ActionListener; import
java.awt.event.KeyEvent; import
java.awt.event.KeyListener;

public class Movetheball extends Applet implements
ActionListener,KeyListener {        int x,y;
    Button up,down,left,right;
    public void init() {
    this.addKeyListener(this);
    setSize(400,400);
```

```
setBackground(Color.green); x=150;
y=100;
        up = new Button("UP");
    down= new Button("DOWN");
    left = new Button("LEFT");
    right = new Button("RIGHT");

        setLayout(null);
    up.addKeyListner(this);
    up.setBounds(150,250,70,25);
    down.setBounds(150,350,70,25);
    left.setBounds(100,300,70,25);
    right.setBounds(200,300,70,25);

        up.addActionListener(this);
    down.addActionListener(this);
    left.addActionListener(this);
    right.addActionListener(this); add(up);
add(down); add(left);
            add(right);
```

```
  }



  @Override
public void actionPerformed(ActionEvent e) {
// TODO Auto-generated method stub
if(e.getSource()==up)
        {
           y=y-20;
repaint();
        }
        else if(e.getSource()== down)
        {
              y=y+20;
              repaint();
        }

        else if(e.getSource()==left)
```

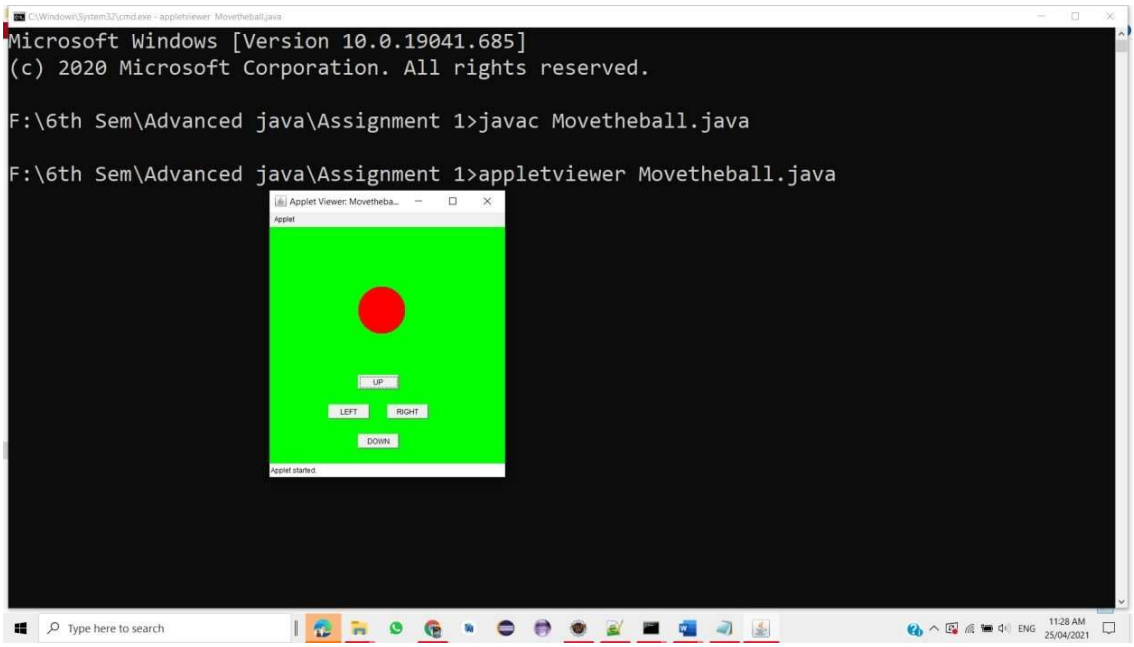
```
        {
            x=x-20;
repaint();
        }
        else if(e.getSource()==right)
        {
            x=x+20;
repaint();
        }

    }


    @Override public void
    keyTyped(KeyEvent e) {
        // TODO Auto-generated method stub


    }
```

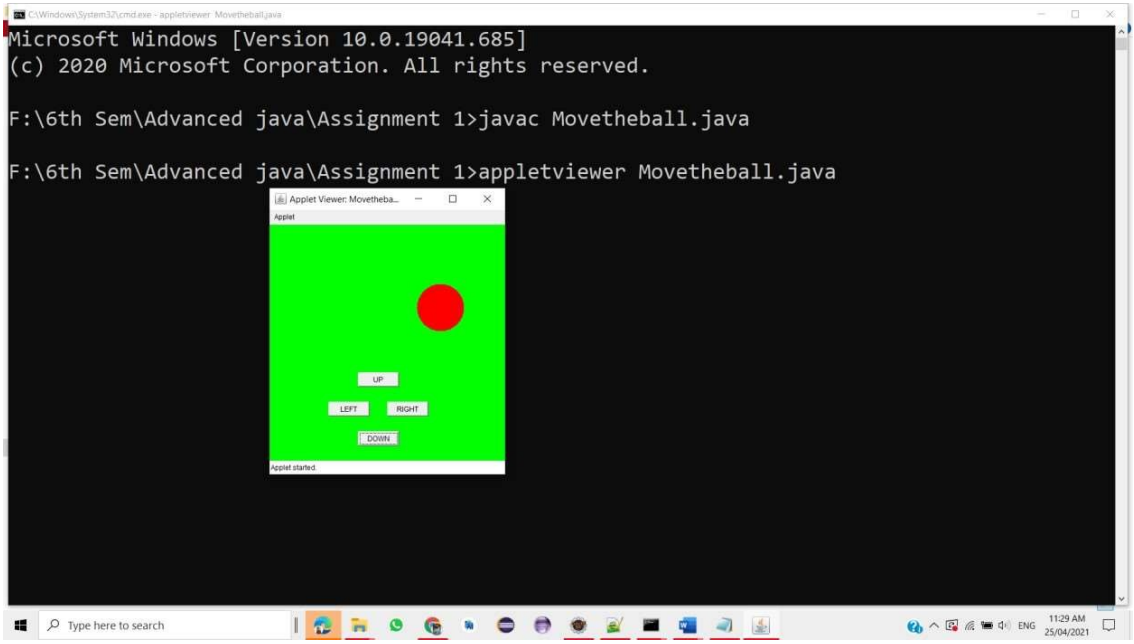
```
    @Override
    public void keyPressed(KeyEvent e) {

        int KeyCode = e.getKeyCode();
   switch(KeyCode)
           {
           case KeyEvent.VK_UP:
              y=y-20;
   repaint();                  break;
   case KeyEvent.VK_DOWN:
   y=y+20;
                 repaint();
                 break;
           case KeyEvent.VK_LEFT:
              x=x-20;
              repaint();
   break;          case
KeyEvent.VK_RIGHT:
```

```
                x=x+20;
    repaint();
    break;
            }
      }

      @Override
      public void keyReleased(KeyEvent e) {
            // TODO Auto-generated method stub

      }
      public void paint(Graphics g)
      {
            g.setColor(Color.red);
            g.fillOval(x, y, 80, 80);
      }

}
/*
<applet code = "Movetheball.class" width="400" height="400">
```

```
</applet>
*/
```

# OUTPUT:



- **Program 5**: Write a code on following output(To click on the button change the colour of the ball )

CODE:

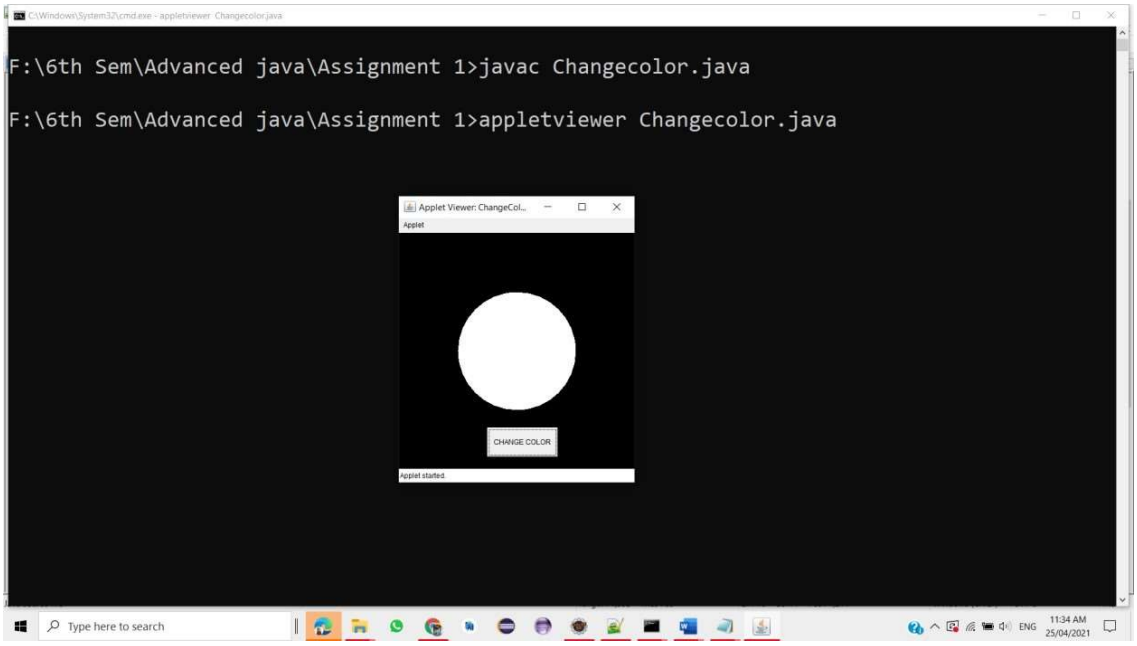
```
import java.applet.Applet; import
java.awt.Button; import
java.awt.Color; import
java.awt.Graphics; import
java.awt.event.ActionEvent; import
java.awt.event.ActionListener;
public class ChangeColor extends Applet implements
ActionListener {
   Button change_color;
   int i=1;     public void
init()
      {
          setSize(400,400);     setBackground(Color.BLACK);
```

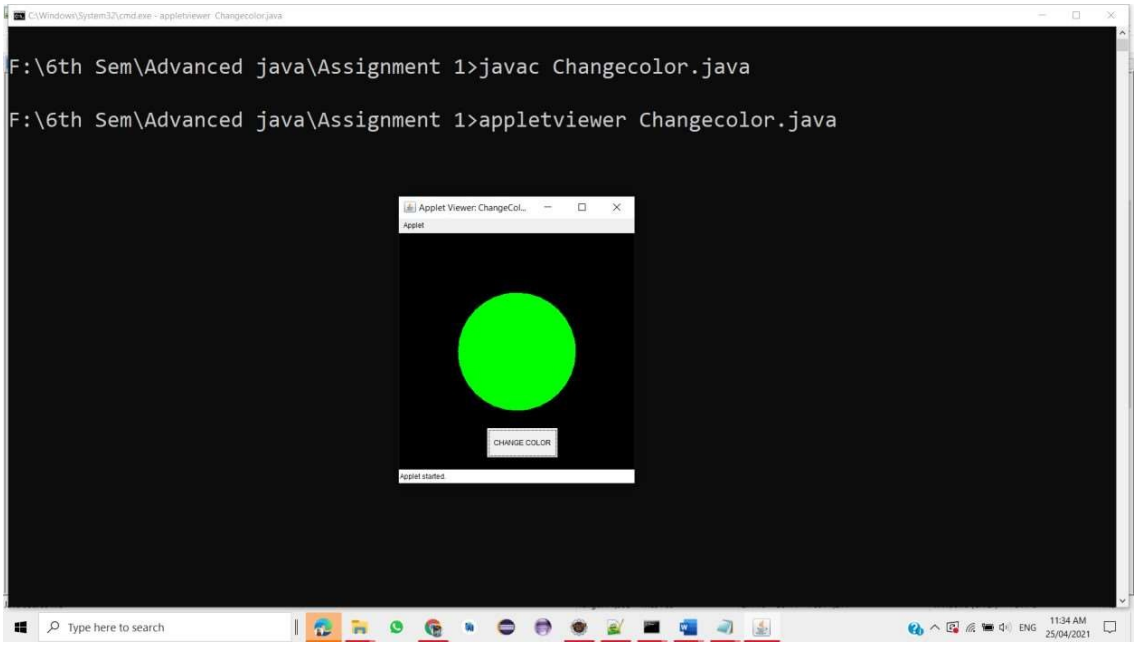
```
        change_color = new Button("CHANGE COLOR");
    setLayout(null);
    change_color.setBounds(150,330,120,50);
    change_color.addActionListener(this);
    add(change_color);
    }
    public void paint(Graphics g)
{
if(i==1)
                {
                        g.setColor(Color.WHITE);
                }
                else if(i==2)
                {
                        g.setColor(Color.RED);
                }
                else if(i==3)
                {
                        g.setColor(Color.GREEN);
                }
                else if(i==4)
```

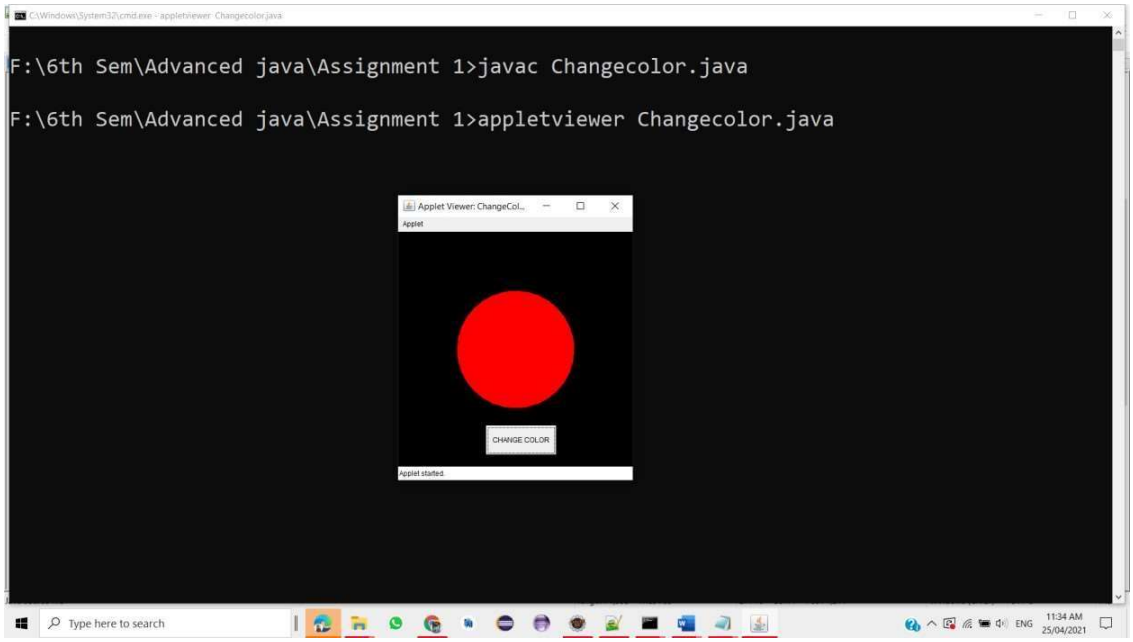
```
                {
                        g.setColor(Color.ORANGE);
                }
                else if(i==5) {
                        g.setColor(Color.PINK);
                        i=1;
                }
            g.fillOval(100, 100, 200,200);
      }
      @Override
    public void actionPerformed(ActionEvent e) {
    if(e.getSource()==change_color)
            {
                i=i+1;
    repaint();
            }
      }
}
/*
<applet code = "ChangeColor.class" width="400" height="400">
</applet>
```

*/

OUTPUT:


F:\6th Sem\Advanced java\Assignment 1>javac Changecolor.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Changecolor.java
Applet Viewer: ChangeCol...
Applet
CHANGE COLOR
Applet started.
Type here to search
ENG
11:34 AM
25/04/2021


F:\6th Sem\Advanced java\Assignment 1>javac Changecolor.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Changecolor.java
Applet Viewer: ChangeCol...
Applet
CHANGE COLOR
Applet started.
Type here to search
ENG
11:34 AM
25/04/2021


F:\6th Sem\Advanced java\Assignment 1>javac Changecolor.java
F:\6th Sem\Advanced java\Assignment 1>appletviewer Changecolor.java
Applet Viewer: ChangeCol...
Applet
CHANGE COLOR
Applet started.
Type here to search
ENG
11:34 AM
25/04/2021