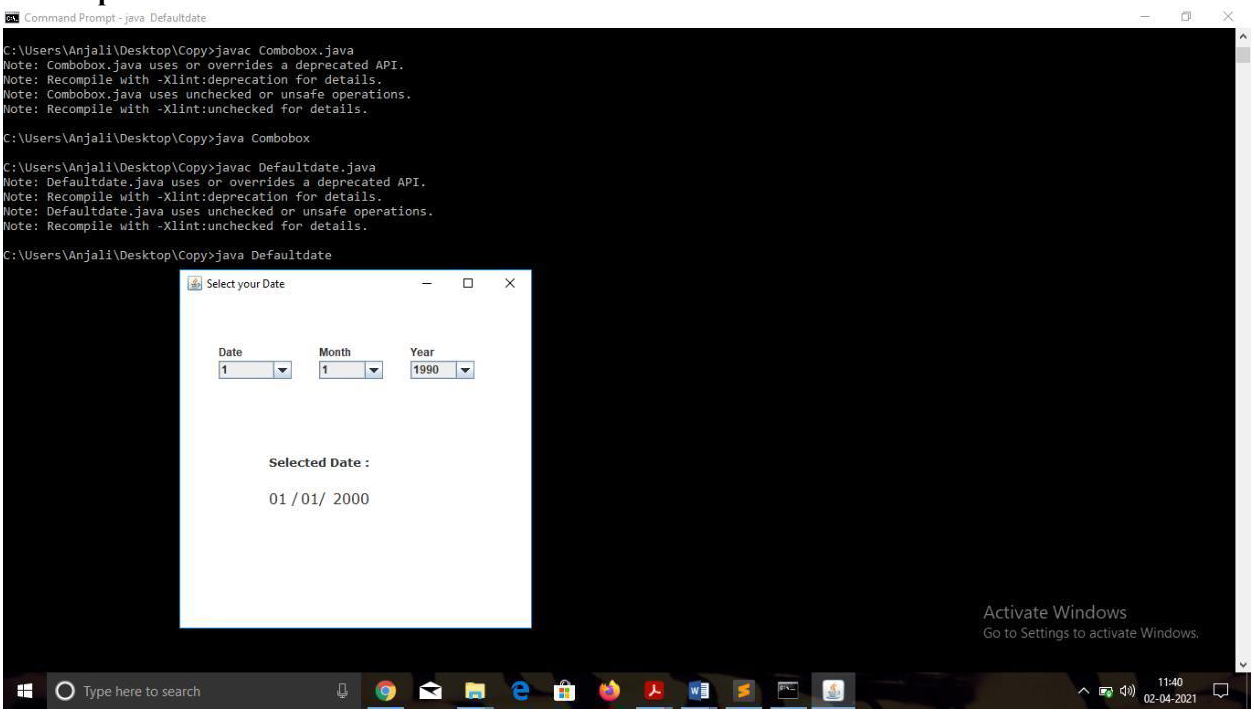
4.**Write a small application with a default date 01/01/2000 and three combo boxes displaying valid days, months & year (1990 – 2050). Change the displayed date with the one chosen by user from these combo boxes.**

```
import java.applet.Applet;
import java.awt.*; import
java.awt.event.*; import
javax.swing.*;
public class Defaultdate extends Applet{ public static
    JLabel l,l1,l2,l3,d1,d2,d3,d4,d5; public static
    JComboBox cb,cb1,cb2; public static void
    main(String[] args){
        Frame f = new Frame("Select your Date");
        f.setSize(400, 400);
        Integer days[]={01,02,03,04,05,06,07,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,
27,28,29,30,31};
        Integer months[]={01,02,03,04,05,06,07,8,9,10,11,12}; Integer
        years[]=new Integer[61];
        int k=0;
        for (int i=1990; i<=2050;i++ ) {
            years[k]=i;
            k++;
        }
        l1=new JLabel("Date");
        l1.setBounds(50,80,80,20);
        l2=new JLabel("Month");
        l2.setBounds(160,80,80,20);
        l3=new JLabel("Year");
        l3.setBounds(260,80,80,20);
        cb=new JComboBox(days);
        cb.setBounds(50,100,80,20);
        cb1=new JComboBox(months);
        cb1.setBounds(160,100,70,20);
        cb2=new JComboBox(years);
        cb2.setBounds(260,100,70,20);

        l=new JLabel("Selected Date :");
        l.setBounds(105,160,200,100);
        l.setFont(new Font("Verdana", Font.BOLD, 13));
        d1=new JLabel("01");
        d1.setBounds(105,200,300,100);
        d1.setFont(new Font("Verdana", Font.PLAIN, 16)); d4=new
        JLabel("/");
```

```
d4.setBounds(130,200,300,100);
d4.setFont(new Font("Verdana", Font.PLAIN, 16)); d2=new
JLabel("01");
d2.setBounds(140,200,300,100);
d2.setFont(new Font("Verdana", Font.PLAIN, 16)); d5=new
JLabel("/");
d5.setBounds(160,200,300,100);
d5.setFont(new Font("Verdana", Font.PLAIN, 16)); d3=new
JLabel("2000");
d3.setBounds(175,200,300,100);
d3.setFont(new Font("Verdana", Font.PLAIN, 16));


f.add(cb);
f.add(cb1);
f.add(cb2);
f.add(l1);
f.add(l2);
f.add(l3);
f.add(d1);
f.add(d2);

f.add(d3);
f.add(d4);
f.add(d5);
f.add(l);

cb.addActionListener(new ActionListener(){
   @java.lang.Override
   public void actionPerformed(ActionEvent e){
    int date=(int)cb.getSelectedItem();
        d1.setText(String.valueOf(date));
   }
});

cb1.addActionListener(new ActionListener(){
   @java.lang.Override
   public void actionPerformed(ActionEvent e){ int
       day=(int)cb1.getSelectedItem();
       d2.setText(String.valueOf(day));

   }
});
```

```
cb2.addActionListener(new ActionListener(){
@java.lang.Override
        public void actionPerformed(ActionEvent e){ int
            yr=(int)cb2.getSelectedItem();
            d3.setText(String.valueOf(yr));
        }
      });
        f.setLayout(null);
      f.setVisible(true);

      f.addWindowListener(new WindowAdapter() { public void
              windowClosing(WindowEvent e) { System.exit(0);
              }
       });
   }}
```

Output:



5.Create a GUI with title STUDENT which has labels roll no., name, course, gender, class, address with textboxes for taking input from the user(without any functionality) and checkboxes for selecting the course, radio buttons for selecting gender with appropriate background color.

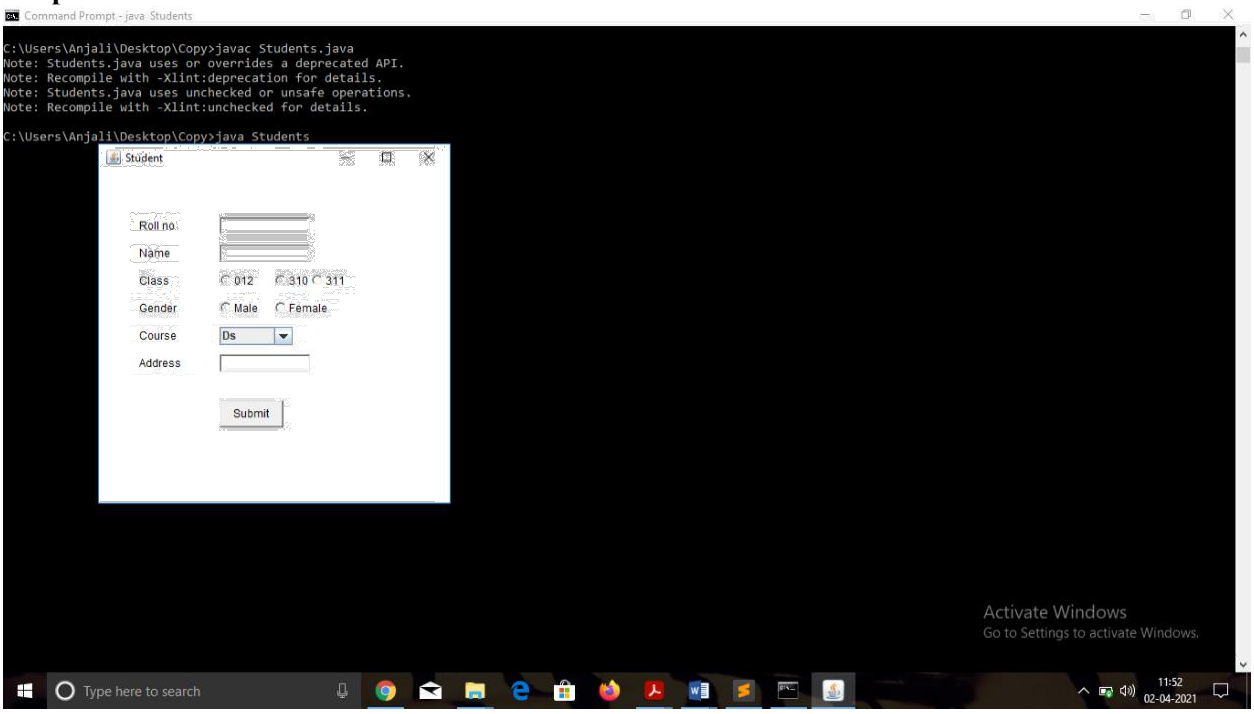
Program:

```
import java.applet.Applet;
import java.awt.event.*;
import java.awt.*; import
javax.swing.*;
public class Students extends Applet{
        public static Label l,l1,l2,l3,l4,l5,l6;
        public static TextField t1,t2,t3,t4;
    public static JComboBox cb;
        public static void main(String[] args) {
        Frame f=new Frame("Student");
                l1=new Label("Roll no");
      l1.setBounds(50,80,50,20);
      l2=new Label("Name");
      l2.setBounds(50,110,50,20);

      l3=new Label("Class");
      l3.setBounds(50,140,50,20);
      l4=new Label("Gender");
      l4.setBounds(50,170,50,20);
      l5=new Label("Course");
      l5.setBounds(50,200,50,20);
      l6=new Label("Address");
      l6.setBounds(50,230,50,20);
      String course[]={"Ds","Daa","OOPS","c"};
      cb=new JComboBox(course);
      cb.setBounds(140,200,80,20);

                t1=new TextField();
                t1.setBounds(140,80,100,20);
                t2=new TextField();
                t2.setBounds(140,110,100,20);
                t3=new TextField();
                t3.setBounds(140,230,100,20); CheckboxGroup cbg=new
                CheckboxGroup(); Checkbox box1=new
                Checkbox("012",false,cbg); Checkbox box2=new
                Checkbox("310",false,cbg); Checkbox box3=new
                Checkbox("311",false,cbg); box1.setBounds(140,140,40,20);
```

```
box2.setBounds(200,140,40,20);
box3.setBounds(240,140,40,20); CheckboxGroup cbg1=new
CheckboxGroup(); Checkbox box4=new
Checkbox("Male",false,cbg1); Checkbox box5=new
Checkbox("Female",false,cbg1);
box4.setBounds(140,170,60,20);
box5.setBounds(200,170,60,20); Button b=new
Button("Submit");
b.setBounds(140,280,70,30);
l=new Label("Submitted!");
l.setBounds(140,320,60,30);
l.setVisible(false);


b.addActionListener(new ActionListener(){
  @java.lang.Override
  public void actionPerformed(ActionEvent e){
      l.setVisible(true);
  }
});
f.add(l1);
f.add(l2);
f.add(l3);
f.add(l4);
f.add(l6);
f.add(t1);
f.add(t2);
f.add(box1);
f.add(box2);
f.add(box3);
f.add(box4);
f.add(box5);
f.add(l5);
f.add(cb);
f.add(t3);
f.add(b);
f.add(l);
f.setSize(400,400);
f.setLayout(null);
f.setVisible(true);
f.addWindowListener(new WindowAdapter() { public
void windowClosing(WindowEvent e) {
System.exit(0);
```

```
}
                });
        }
}
```

Output:

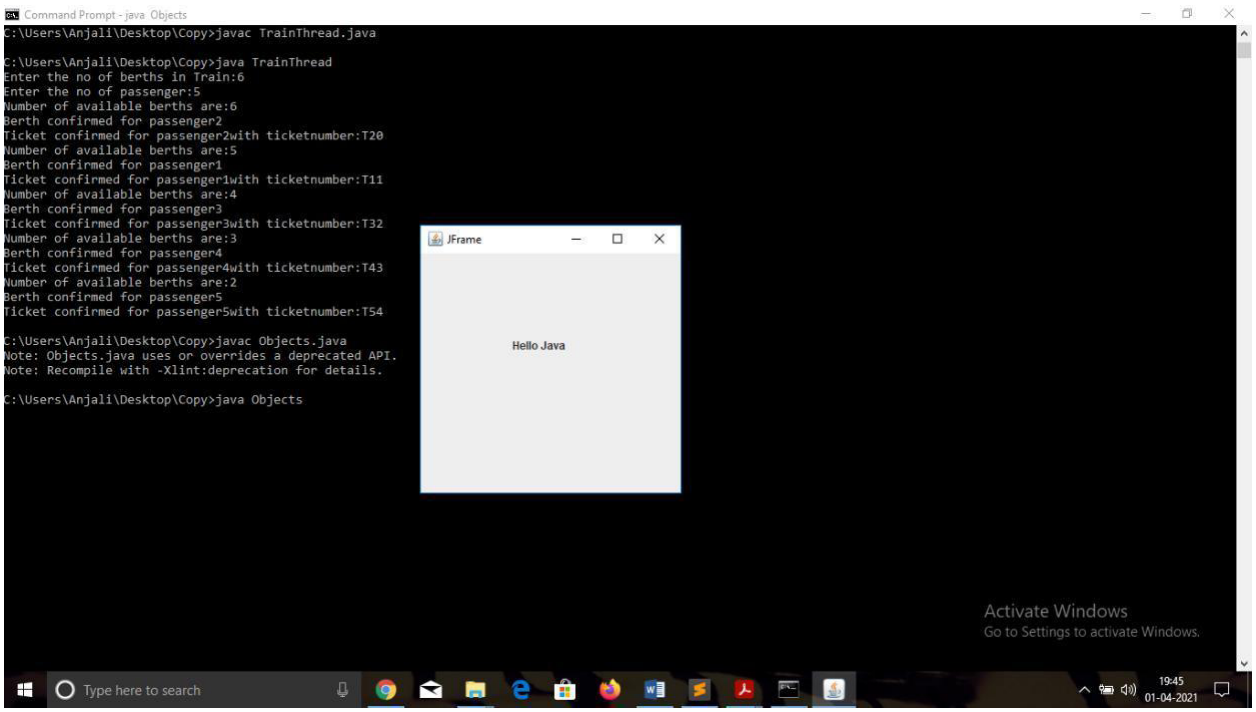

Command Prompt - java Students
C:\Users\Anjali\Desktop\Copy>javac Students.java
Note: Students.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
Note: Students.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
C:\Users\Anjali\Desktop\Copy>java Students
Student
Roll no
Name
Class
012
310
311
Gender
Male
Female
Course
Ds
Address
Submit
Activate Windows
Go to Settings to activate Windows.
Type here to search
11:52
02-04-2021

Week-XI

1.Write a program to create a frame by creating an object to Jframe class and include close button to terminate the application of the frame.

```
import java.applet.Applet;
import java.awt.event.*;
import java.awt.*; import
javax.swing.*;
public class Objects extends Applet{
public static void main(String[] args) {
JFrame f=new JFrame("JFrame");
 JLabel l=new JLabel("Hello Java");
 l.setBounds(100,50,100,100);

 f.add(l);
 f.setSize(300,300);
 f.setLayout(null);
 f.setVisible(true);
 f.addWindowListener(new WindowAdapter() {
 public void windowClosing(WindowEvent e) {
 System.exit(0);
 }});
 }
}
```

Output:

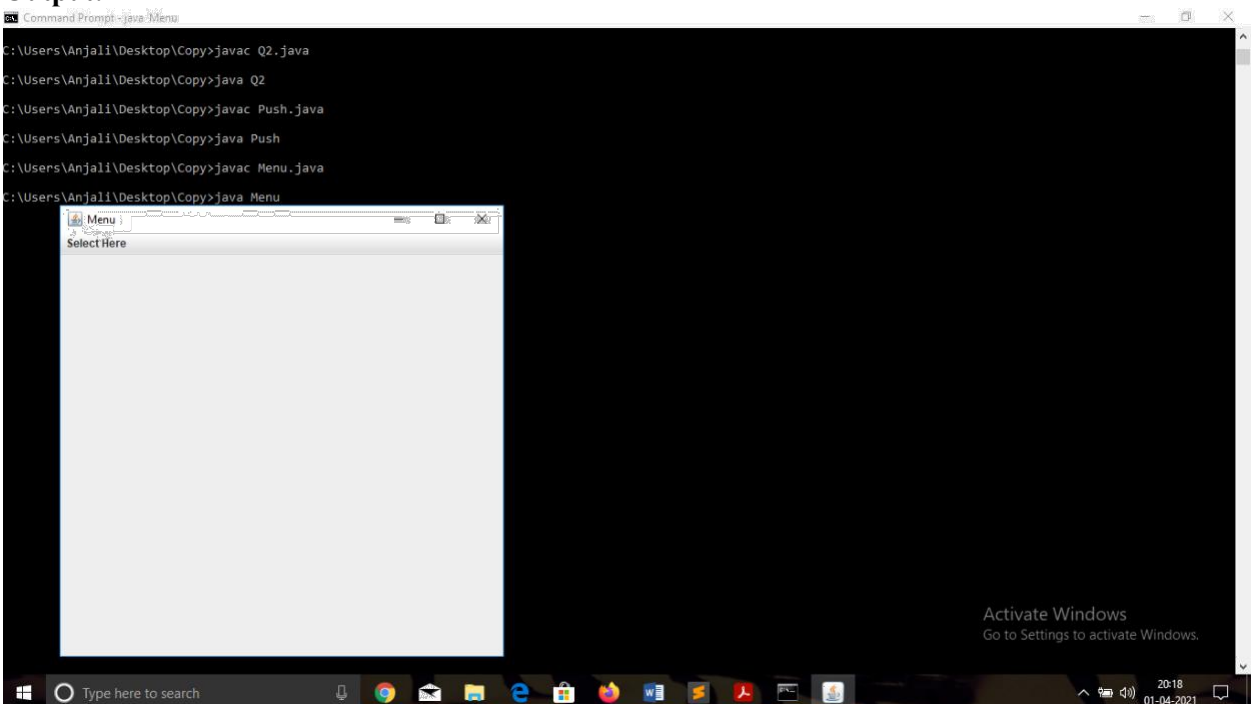


4.Write a program to create a menu with several menu items.

Program:

```
 import javax.swing.*;
import java.awt.*; import
java.awt.event.*;
class Menu implements ActionListener{
 static JLabel text;
public static void main(String args[]){
 JFrame frame = new JFrame("Menu");
 frame.setSize(500,500);
 frame.setLayout(new FlowLayout());
 Menu obj = new Menu();
 JMenu menu = new JMenu("Select Here");
 JMenuItem item[] = new JMenuItem[5];
 for(int i=0;i<5;i++)
 {
 item[i]=new JMenuItem("Item "+(i+1));
 item[i].addActionListener(obj);
 menu.add(item[i]);
 }
 JMenuBar mb=new JMenuBar();
 mb.add(menu);
 frame.setJMenuBar(mb);
 text = new JLabel();
 frame.add(text);
 frame.setVisible(true);
 }
 public void actionPerformed(ActionEvent e){
 text.setText("Menu Item Selected : "+e.getActionCommand());
 }}
```

Output:



5.Create an application Form for University Enroll ment with the following Fields. a. Check box b. Text area c. List box d. Display text e. Push buttons f. Combo box. g. Radio buttons. h. Back ground color

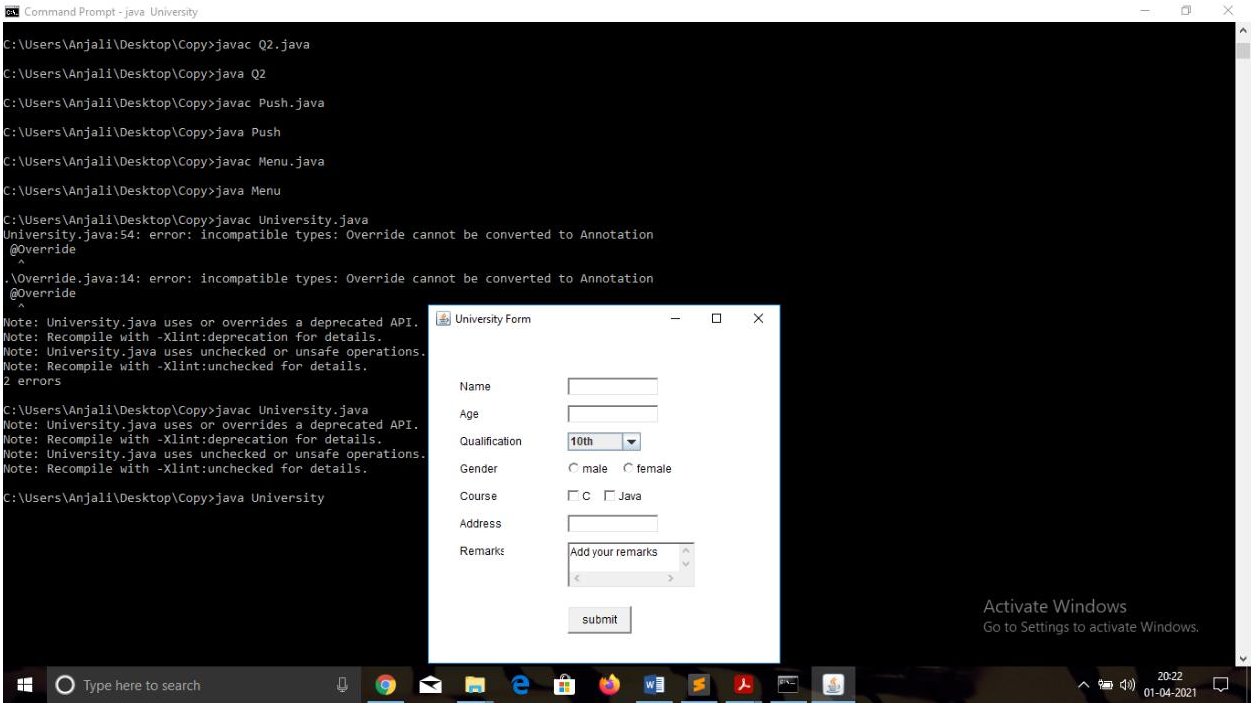
Program:

```
import java.applet.Applet;
import java.awt.event.*;
import java.awt.*; import
javax.swing.*;
public class University extends Applet{
 public static Label l,l1,l2,l3,l4,l5,l6,l7; public
 static TextField t1,t2,t3,t4; public static
 JComboBox cb;
public static void main(String[] args) {

 Frame f=new Frame("University Form");
 l1=new Label("Name");
 l1.setBounds(40,80,50,20);
 l2=new Label("Age");
l2.setBounds(40,110,50,20);
 l3=new Label("Qualification");
 l3.setBounds(40,140,70,20);
 l4=new Label("Gender");
 l4.setBounds(40,170,50,20);
 l5=new Label("Course");

 l5.setBounds(40,200,50,20);
 l6=new Label("Address");
 l6.setBounds(40,230,50,20);
 l7=new Label("Remarks");
 l7.setBounds(40,260,50,20);
 String course[]={"10th","11th","12th",};
 cb=new JComboBox(course);
 cb.setBounds(160,140,80,20);

 t1=new TextField();
 t1.setBounds(160,80,100,20);
 t2=new TextField();
 t2.setBounds(160,110,100,20);
 t3=new TextField();
 t3.setBounds(160,230,100,20);
 TextArea ta=new TextArea("Add your remarks");
 ta.setBounds(160,260,140,50);
```

```
Checkbox box1=new Checkbox("C");
 Checkbox box2=new Checkbox("Java");
box1.setBounds(160,200,40,20);
box2.setBounds(200,200,40,20);
CheckboxGroup cbg1=new CheckboxGroup();
Checkbox box3=new Checkbox("male",false,cbg1);
Checkbox box4=new Checkbox("female",false,cbg1);
box3.setBounds(160,170,60,20);
box4.setBounds(220,170,60,20);
 Button b=new Button("submit");
 b.setBounds(160,330,70,30); l=new
 Label("Successfully Enrolled!");
 l.setBounds(140,360,160,30); l.setVisible(false);
 b.addActionListener(new ActionListener(){
 @java.lang.Override
 public void actionPerformed(ActionEvent e){
 l.setVisible(true);
 }
 });
 f.add(l1);
 f.add(l2);
 f.add(l3);
 f.add(l4);
 f.add(l6);
 f.add(l7);
 f.add(t1);
 f.add(t2);
 f.add(box1);
 f.add(box2);
 f.add(box3);
 f.add(box4);
 f.add(l5);
 f.add(cb);
 f.add(t3);
 f.add(b);
 f.add(l);
 f.add(ta);
 f.setSize(400,400);
 f.setLayout(null);
 f.setVisible(true);
 f.addWindowListener(new WindowAdapter() {
 public void windowClosing(WindowEvent e) {
 System.exit(0);
```

});
}}

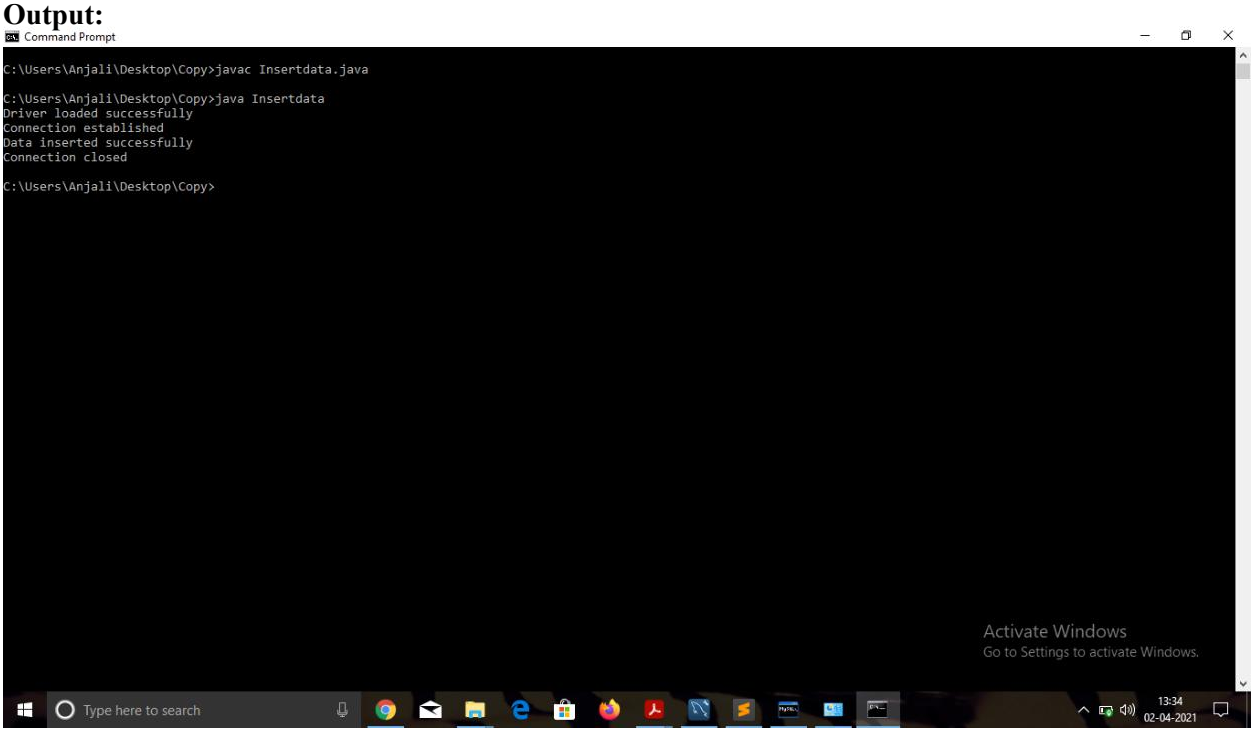
Output:


Command Prompt - java University
C:\Users\Anjali\Desktop\Copy>javac Q2.java
C:\Users\Anjali\Desktop\Copy>java Q2
C:\Users\Anjali\Desktop\Copy>javac Push.java
C:\Users\Anjali\Desktop\Copy>java Push
C:\Users\Anjali\Desktop\Copy>javac Menu.java
C:\Users\Anjali\Desktop\Copy>java Menu
C:\Users\Anjali\Desktop\Copy>javac University.java
University.java:54: error: incompatible types: Override cannot be converted to Annotation
@Override
^
.\Override.java:14: error: incompatible types: Override cannot be converted to Annotation
@Override
^
Note: University.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
Note: University.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
2 errors
C:\Users\Anjali\Desktop\Copy>javac University.java
Note: University.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
Note: University.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
C:\Users\Anjali\Desktop\Copy>java University
University Form
Name
Age
Qualification
10th
Gender
male
female
Course
C
Java
Address
Remarks
Add your remarks
submit
Activate Windows
Go to Settings to activate Windows.
Type here to search
20:22
01-04-2021

Week-XII

1.Write a program to insert data into Student Table import java.sql.Connection;
import java.sql.DriverManager;
public class Insertdata {
public static void main(String[] args) { try {
Class.forName("com.mysql.cj.jdbc.Driver");
System.out.println("Driver loaded successfully");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/java","root","Anjali@123");
System.out.println("Connection established"); java.sql.Statement
statement= con.createStatement();
statement.executeUpdate("insert into student
values(\"148\",\"Anjali\",507209)");
System.out.println("Data inserted successfully");
con.close(); System.out.println("Connection closed");
}catch(Exception e) {
System.out.println("In exception block..."+e.getMessage());
}}}

Output:

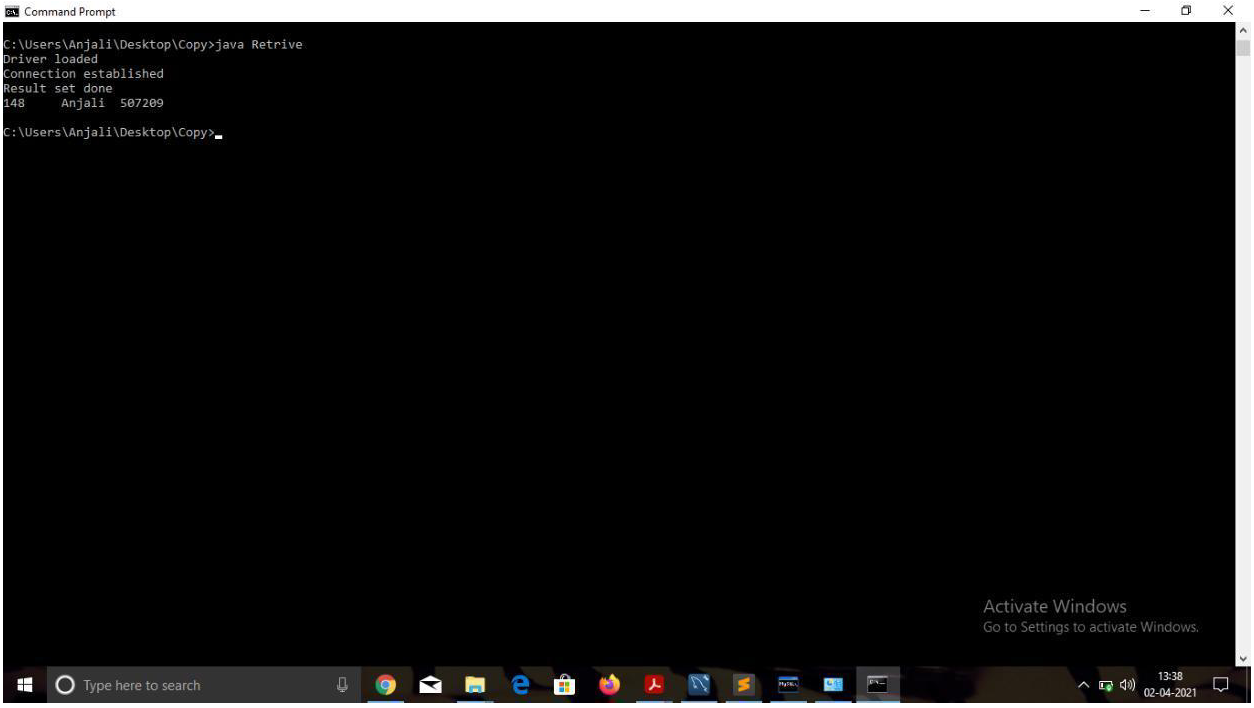


2.Write a program to retrieve the data from the table Student.

Program:

```
 import java.sql.Connection;
import java.sql.DriverManager;
public class Retrive {
        public static void main(String args[]) { try {
                        Class.forName("com.mysql.cj.jdbc.Driver");
                        System.out.println("Driver loaded");
                        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/java","root","Anjali@123");
                        System.out.println("Connection established");
                         java.sql.Statement statement = con.createStatement(); java.sql.ResultSet
                        resultSet = statement.executeQuery("select *
                                from student");
                        System.out.println("Result set done");
                        while(resultSet.next()) {
                                String id = resultSet.getString("sid");
                                String name = resultSet.getString("sname");
                                String num = resultSet.getString("spin");
                                System.out.println(id+"\t"+name+"\t"+num);
                        }
                }catch(Exception e) {
                        System.out.println("In exception block..."+e.getMessage());
                }}}
```

Output:



3.Create a Form to insert and retrieve the data from Database as user prefer.

Program:

```
 import java.awt.*;
import java.awt.event.*;
import java.sql.*;
public class Database extends Frame implements ActionListener{
        String message = "";
        String sid = "";
        String sname = "";
        String spin = "";
        String class1 = "";
        String option = "";
        Button button = new Button("SUBMIT");
        Label top = new Label("STUDENT DETAILS FORM", Label.CENTER);
        CheckboxGroup choice = new CheckboxGroup();
        Checkbox op1 = new Checkbox("Insert", false, choice); Checkbox
        op2 = new Checkbox("Display", false, choice);
        Label l1 = new Label("Student id:",Label.LEFT);
        Label l2 = new Label("Student name:",Label.LEFT);
        Label l3 = new Label("Contact no.:",Label.LEFT);
        Label l4 = new Label("Class number:",Label.LEFT);
        Label display = new Label("Your data inserted Succssfully!", Label.CENTER); Label
        heading = new Label("Details are:", Label.CENTER);
        TextArea details = new TextArea("Your Details here:");
        TextField t1 = new TextField();
        TextField t2 = new TextField(); TextField t3 = new TextField();
        CheckboxGroup cbg = new CheckboxGroup(); Checkbox box1 =
        new Checkbox("AB2 310",false,cbg); Checkbox box2 = new
        Checkbox("AB2 311", false, cbg);
        public Database() {
                addWindowListener(new myWindowAdapter());
                setBackground(Color.pink);
                setForeground(Color.black);
                setLayout(null);
                add(top);
                add(op1);
                add(op2);
                add(l1);
                add(l2);
                add(l3);
                add(l4);
                add(display);
```

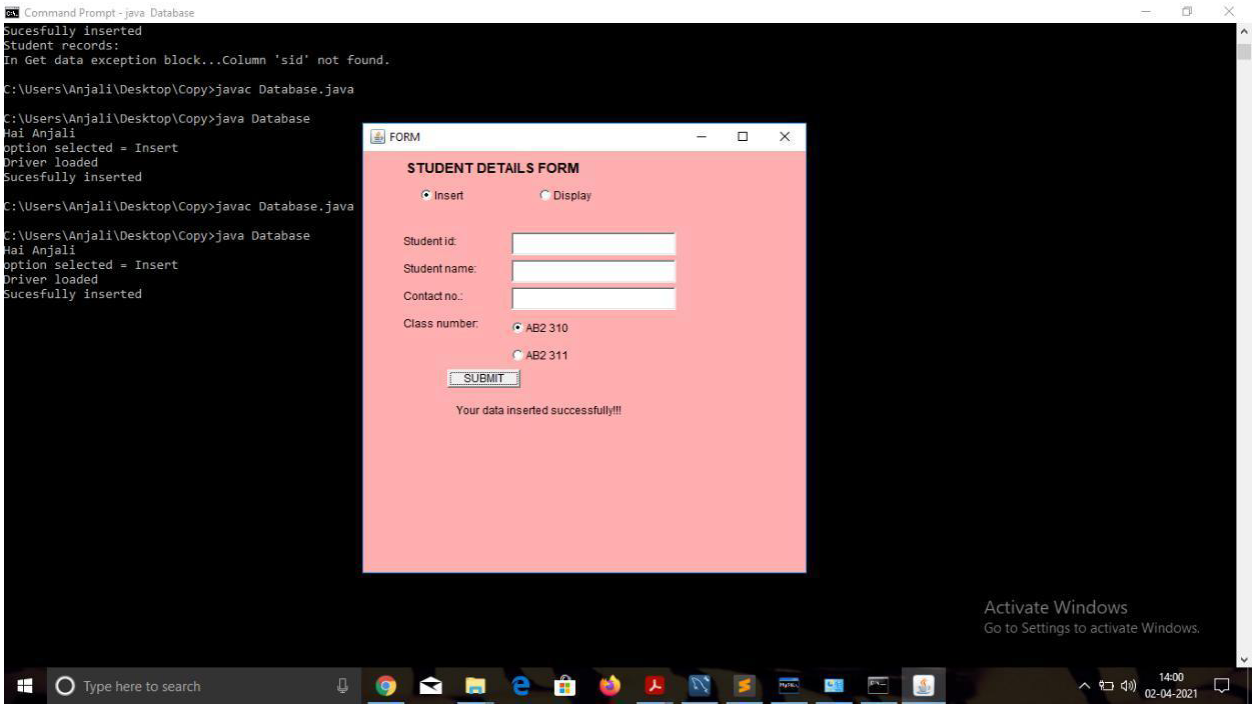
```
add(heading);
add(t1);
add(t2);
add(t3);
add(box1);
add(box2);
add(button);
add(details);
button.addActionListener(this);
top.setBounds(10,40,280,20);
top.setFont(new Font("Verdana", Font.BOLD, 15));
op1.setBounds(70,70,120,20);
op2.setBounds(200,70,180,20);

l1.setBounds(50,120,120,20);
l1.setVisible(false);
l2.setBounds(50,150,120,20);
l2.setVisible(false);
l3.setBounds(50,180,120,20);
l3.setVisible(false);
l4.setBounds(50,210,120,20);
l4.setVisible(false);

t1.setBounds(170,120,180,25);
t1.setVisible(false);
t2.setBounds(170,150,180,25);
t2.setVisible(false);
t3.setBounds(170,180,180,25);
t3.setVisible(false);

box1.setBounds(170,210,180,30);
box1.setVisible(false);
box2.setBounds(170,240,180,30);
box2.setVisible(false);
button.setBounds(100,270,80,20);
button.setVisible(false);
display.setBounds(100,290,200,50);
display.setVisible(false);

heading.setBounds(70,120,150,30);
heading.setVisible(false);
```

```
details.setBounds(70,150,300,150);
details.setVisible(false);
//Event listener for inserting
op1.addItemListener(new ItemListener() {
        public void itemStateChanged(ItemEvent e) {
                l1.setVisible(true);


l2.setVisible(true);
                l3.setVisible(true);
                l4.setVisible(true);
                t1.setVisible(true);
                t2.setVisible(true);
                t3.setVisible(true);
                box1.setVisible(true);
                box2.setVisible(true);
                button.setVisible(true);
                display.setVisible(false);
                heading.setVisible(false);
                details.setVisible(false);
        }});
//event listener for Displaying
op2.addItemListener(new ItemListener() {
        public void itemStateChanged(ItemEvent e) {
                display.setVisible(false);
                heading.setVisible(true);
                details.setVisible(true); l1.setVisible(false);
                l2.setVisible(false);
                l3.setVisible(false);
                l4.setVisible(false);
                t1.setVisible(false);
                t2.setVisible(false);
                t3.setVisible(false);
                box1.setVisible(false);
                box2.setVisible(false);
                button.setVisible(false);
                getData();
        }});}
```

```
        //INSERTING THE DATA
        public void insertData(String sid1, String sname, String spin, String class1) {
         try {
                Class.forName("com.mysql.cj.jdbc.Driver");
                                System.out.println("Driver loaded");
                                java.sql.Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/java","root","Anjali@123");
                                PreparedStatement preparedStatement =
con.prepareStatement("insert into stu1(sid1, sname, spin, mail) values(?,?,?,?)");
                                preparedStatement.setString(1, sid1);
                                preparedStatement.setString(2, sname);
                                preparedStatement.setString(3, spin);
                                preparedStatement.setString(4, class1);
                                int i = preparedStatement.executeUpdate();
                                System.out.println("Sucesfully inserted");

                                display.setVisible(true);
                                display.setText("Your data inserted successfully!!!");
                                t1.setText("");
                                t2.setText("");
                                t3.setText("");
                                con.close();
                        }
                        catch(Exception e) {
                                System.out.println("In exception block for
isertion..."+e.getMessage());
                        }}
                //retreiving the data from the database
                public void getData() {
                        String total = "";
                        try {
                                Class.forName("com.mysql.cj.jdbc.Driver");
                                java.sql.Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/java","root","Anjali@123");
Statement statement = con.createStatement(); statement.execute("select* from stu1");
                                ResultSet resultSet = statement.getResultSet();
                                System.out.println("Student records:");
                                while(resultSet.next()) {
                                        String sid1 = resultSet.getString("sid1");
                                        String sname1 = resultSet.getString("sname");
```

```
String spin1 = resultSet.getString("spin"); String clas1 = resultSet.getString("mail");
System.out.println("details: "+sid1+" "+sname1+""+spin1+" "+clas1);
String s1 = sid1 + " " + sname1 + " " + spin1 + " " +clas1 + "\n";
total+=s1;}
heading.setText("Table Details Retrieved are: ");
details.setText(total);
}
catch(Exception e) {
System.out.println("In Get data exception
block..."+e.getMessage());
                        }}
        //event performed
                public void actionPerformed(ActionEvent e) {
                        Checkbox choices = choice.getSelectedCheckbox(); o
                        ption = choices.getLabel();
                        System.out.println("option selected = "+option);

                        if(option.equals("Insert")) {
                                sid = t1.getText();
                                sname = t2.getText();
                                spin = t3.getText();
                                Checkbox cb = cbg.getSelectedCheckbox();
                                class1 = cb.getLabel();
                                String sid1 = (sid.trim());
                                insertData(sid1,sname,spin,class1);
                        }else {
                                heading.setVisible(true);
                                details.setVisible(true);
                                getData();
                        }}

//MAIN function
        public static void main(String[] args) {
                System.out.println("Hai Anjali");
                Database wk = new Database();
                wk.setSize(new Dimension(500,500));
                wk.setTitle("FORM");
                wk.setVisible(true);}}
/To close
class myWindowAdapter extends WindowAdapter{ public void
        windowClosing(WindowEvent we) {
                System.exit(0);}}
```

Output:



4.Write a program to store an Image and retrieve an image from Database

Program:

```
 import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.sql.DriverManager; import
java.sql.Connection; import
java.sql.SQLException;
public class Store {
        private static void storeImage() {
                try {
                        Class.forName("com.mysql.cj.jdbc.Driver");
                        Connection con =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/java","root","Anjali@123");
                        System.out.println("Connection established");
                        java.sql.PreparedStatement preparedStatement =
con.prepareStatement("insert into image values(?,?)");
                        preparedStatement.setInt(1, 12);
                        preparedStatement.setString(2, "thank");
                        FileInputStream fileInputStream = new
FileInputStream("C:\\Users\\Anjali\\Documents\\thank.jpg");
                        preparedStatement.setBinaryStream(2, fileInputStream,
fileInputStream.available());
```

```
                int i = preparedStatement.executeUpdate();
                System.out.println("Done");
                System.out.println("Stored img successfully");
                con.close();
        }catch(Exception e) {
                System.out.println("In exception block..."+e.getMessage());
        }}
private static void retrieveImage() {
        try {
                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/java","root","Anjali@123");
                java.sql.PreparedStatement preparedStatement =
con.prepareStatement("select * from image");
                java.sql.ResultSet rs = preparedStatement.executeQuery(); if(rs.next())
                {
                        java.sql.Blob blob = rs.getBlob(2);
                        byte barr[] = blob.getBytes(1, (int)blob.length());
                        FileOutputStream fileOutputStream = new
FileOutputStream("thank.jpg");
                        fileOutputStream.write(barr);
                        fileOutputStream.close();
                }
                System.out.println("Retrieved successfully!!!");
                con.close();
        }catch(Exception e) {
                        System.out.println("In exception block..."+e.getMessage());
        }}

public static void main(String[] args) throws SQLException{
 storeImage();
retrieveImage();
        }}
```

Output: