Rajarshi Shahu Institute of Management, Aurangabad

DepartmentOf

Master of Computer Applications

Certificate

This is to certify that Mr/miss_____ is our student of MCA –III semester having a Roll No._____ and has submitted his/her Practical File on the subject of "Advance Java "in the academic year 2022-2023, as per the requirement of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

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Q1. Write a program to login validation form using jbutton j lable j password jtext?

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


//create CreateLoginForm class to create login form
//class extends JFrame to create a window where our component add
//class implements ActionListener to perform an action on button click
class CreateLoginForm extends JFrame implements ActionListener
{
    //initialize button, panel, label, and text field
    JButton b1;
    JPanel newPanel;
    JLabel userLabel, passLabel;
    final JTextField  textField1, textField2;

    //calling constructor
    CreateLoginForm()
    {

        //create label for username
        userLabel = new JLabel();
        userLabel.setText("Username");     //set label value for textField1

        //create text field to get username from the user
        textField1 = new JTextField(15);   //set length of the text

        //create label for password
        passLabel = new JLabel();
        passLabel.setText("Password");     //set label value for textField2

        //create text field to get password from the user
        textField2 = new JPasswordField(15);   //set length for the password

        //create submit button
        b1 = new JButton("SUBMIT"); //set label to button

        //create panel to put form elements
        newPanel = new JPanel(new GridLayout(3, 1));
```

```java
        newPanel.add(userLabel);    //set username label to panel
        newPanel.add(textField1);   //set text field to panel
        newPanel.add(passLabel);    //set password label to panel
        newPanel.add(textField2);   //set text field to panel
        newPanel.add(b1);           //set button to panel

        //set border to panel
        add(newPanel, BorderLayout.CENTER);

        //perform action on button click
        b1.addActionListener(this);     //add action listener to button
        setTitle("LOGIN FORM");         //set title to the login form
    }

    //define abstract method actionPerformed() which will be called on button click
    public void actionPerformed(ActionEvent ae)    //pass action listener as a parameter
    {
        String userValue = textField1.getText();       //get user entered username from the textField1
        String passValue = textField2.getText();        //get user entered pasword from the textField2

        //check whether the credentials are authentic or not
        if (userValue.equals("test1@gmail.com") && passValue.equals("test")) {  //if authentic, navigate user to a new page

            //create instance of the NewPage
            NewPage page = new NewPage();

            //make page visible to the user
            page.setVisible(true);

            //create a welcome label and set it to the new page
            JLabel wel_label = new JLabel("Welcome: "+userValue);
            page.getContentPane().add(wel_label);
        }
        else{
            //show error message
            System.out.println("Please enter valid username and password");
        }
    }
}
//create the main class
```

```java
class LoginFormDemo
{
    //main() method start
    public static void main(String arg[])
    {
        try
        {
            //create instance of the CreateLoginForm
            CreateLoginForm form = new CreateLoginForm();
            form.setSize(300,100);  //set size of the frame
            form.setVisible(true);  //make form visible to the user
        }
        catch(Exception e)
        {
            //handle exception
            JOptionPane.showMessageDialog(null, e.getMessage());
        }
    }
}
```
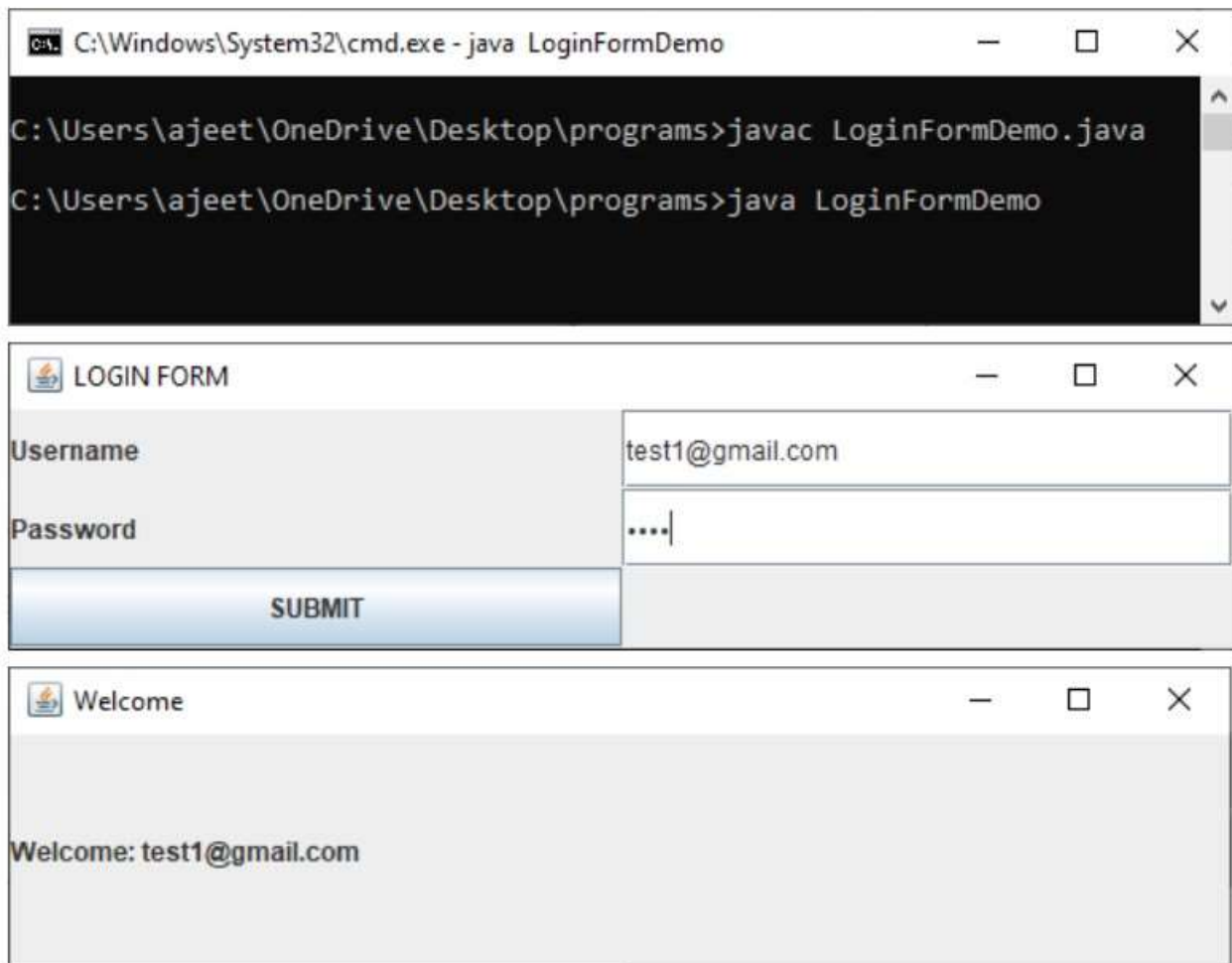
NewPage.java

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

//create NewPage class to create a new page on which user will navigate
class NewPage extends JFrame
{
    //constructor
    NewPage()
    {
        setDefaultCloseOperation(javax.swing.
        WindowConstants.DISPOSE_ON_CLOSE);
        setTitle("Welcome");
        setSize(400, 200);
    }
}
```
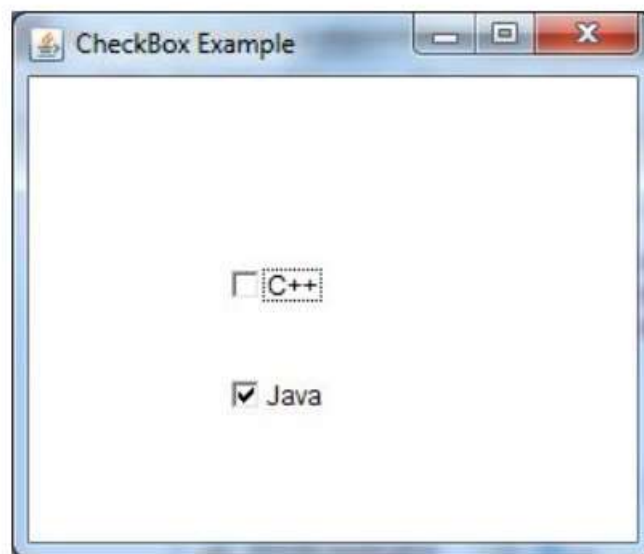
OUTPUT:

```
C:\Windows\System32\cmd.exe - java LoginFormDemo          —    □    ×

C:\Users\ajeet\OneDrive\Desktop\programs>javac LoginFormDemo.java

C:\Users\ajeet\OneDrive\Desktop\programs>java LoginFormDemo
```

```
LOGIN FORM                                    —    □    ×

Username                    test1@gmail.com

Password                    ••••

        SUBMIT
```

```
Welcome                                       —    □    ×


Welcome: test1@gmail.com
```

Q2.write a program to create a checkbox and implement listener in java

. // importing AWT class

import java.awt.*;

public class CheckboxExample1

{

// constructor to initialize

   CheckboxExample1() {

// creating the frame with the title

    Frame f = **new** Frame("Checkbox Example");

// creating the checkboxes

    Checkbox checkbox1 = **new** Checkbox("C++");

    checkbox1.setBounds(100, 100, 50, 50);

    Checkbox checkbox2 = **new** Checkbox("Java", **true**);

// setting location of checkbox in frame

```java
    checkbox2.setBounds(100, 150,  50, 50);
    // adding checkboxes to frame
        f.add(checkbox1);
        f.add(checkbox2);


    // setting size, layout and visibility of frame
        f.setSize(400,400);
        f.setLayout(null);
        f.setVisible(true);
      }
    // main method
    public static void main (String args[])
    {
      new CheckboxExample1();
    }
    }
```

OUTPUT:

Q3.write a program to jtext area control with ist methods in java?

```java
    import java.awt.*;
    public class TextAreaExample
    {
    // constructor to initialize
      TextAreaExample() {
    // creating a frame
```

```java
        Frame f = new Frame();
// creating a text area
        TextArea area = new TextArea("Welcome to javatpoint");
// setting location of text area in frame
        area.setBounds(10, 30, 300, 300);
// adding text area to frame
        f.add(area);
// setting size, layout and visibility of frame
        f.setSize(400, 400);
        f.setLayout(null);
        f.setVisible(true);
    }
// main method
public static void main(String args[])
{
    new TextAreaExample();
}
}
```

Output:

Q4. Write a program to jscrollbar adjustment listener?

```java
import java.awt.BorderLayout;
import java.awt.Dimension;
import java.awt.GridLayout;
import java.awt.event.AdjustmentEvent;
import java.awt.event.AdjustmentListener;
/* w w w . ja v a2s . c o  m*/
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JScrollBar;

public class Main {
 public static void main(String[] args) {
   JFrame frame = new JFrame();

   JPanel main = new JPanel(new GridLayout(2, 1));
   JPanel scrollBarPanel = new JPanel();
   final JScrollBar scrollBar = new JScrollBar(JScrollBar.HORIZONTAL, 0, 48, 0, 255);
   int height = scrollBar.getPreferredSize().height;
   scrollBar.setPreferredSize(new Dimension(175, height));
   scrollBarPanel.add(scrollBar);
   main.add(scrollBarPanel);

   frame.add(main, BorderLayout.CENTER);

   scrollBar.addAdjustmentListener(new AdjustmentListener() {
    public void adjustmentValueChanged(AdjustmentEvent e) {
      System.out.println("JScrollBar's current value = " + scrollBar.getValue());
    }
   });

   frame.pack();
   frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
   frame.setVisible(true);
 }
}
```
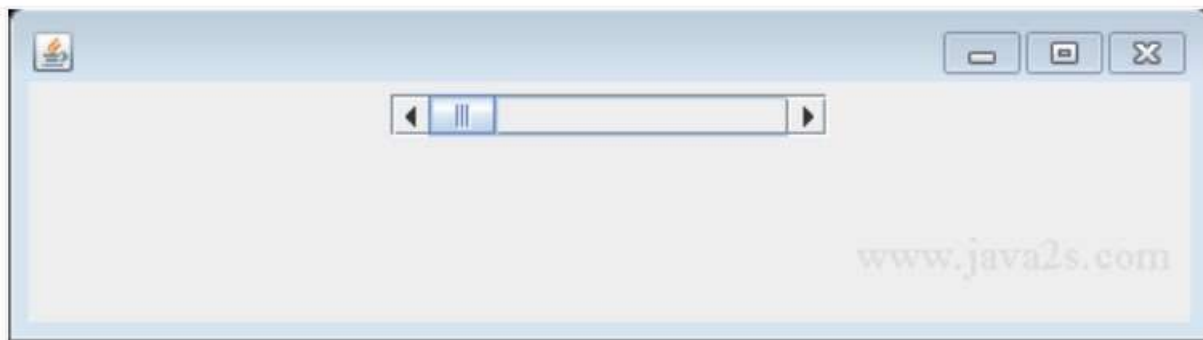
OUTPUT:

Q5. Write a program to create login and logout application in cookie java?

Index.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Servlet Login Example</title>
</head>
<body>


<h1>Welcome to Login App by Cookie</h1>
<a href="login.html">Login</a>|
<a href="LogoutServlet">Logout</a>|
<a href="ProfileServlet">Profile</a>


</body>
</html>
```

File: link.html

```
<a href="login.html">Login</a> |
<a href="LogoutServlet">Logout</a> |
<a href="ProfileServlet">Profile</a>
<hr>
```

File: login.html

```
<form action="LoginServlet" method="post">
Name:<input type="text" name="name"><br>
Password:<input type="password" name="password"><br>
<input type="submit" value="login">
</form>
```

File: LoginServlet.java

```
package com.javatpoint;


import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
```

```java
import javax.servlet.http.HttpServletResponse;
public class LoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
                throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();

        request.getRequestDispatcher("link.html").include(request, response);

        String name=request.getParameter("name");
        String password=request.getParameter("password");

        if(password.equals("admin123")){
            out.print("You are successfully logged in!");
            out.print("<br>Welcome, "+name);

            Cookie ck=new Cookie("name",name);
            response.addCookie(ck);
        }else{
            out.print("sorry, username or password error!");
            request.getRequestDispatcher("login.html").include(request, response);
        }

        out.close();
    }

}
```

File: LogoutServlet.java

```java
package com.javatpoint;

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class LogoutServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
                throws ServletException, IOException {
```

```java
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();


        request.getRequestDispatcher("link.html").include(request, response);

        Cookie ck=new Cookie("name","");
        ck.setMaxAge(0);
        response.addCookie(ck);

        out.print("you are successfully logged out!");
    }
}
```

File: ProfileServlet.java

```java
package com.javatpoint;


import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class ProfileServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
                throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();

        request.getRequestDispatcher("link.html").include(request, response);

        Cookie ck[]=request.getCookies();
        if(ck!=null){
         String name=ck[0].getValue();
        if(!name.equals("")||name!=null){
            out.print("<b>Welcome to Profile</b>");
            out.print("<br>Welcome, "+name);
        }
        }else{
            out.print("Please login first");
```

```
            request.getRequestDispatcher("login.html").include(request, response);
        }
        out.close();
    }
}
```

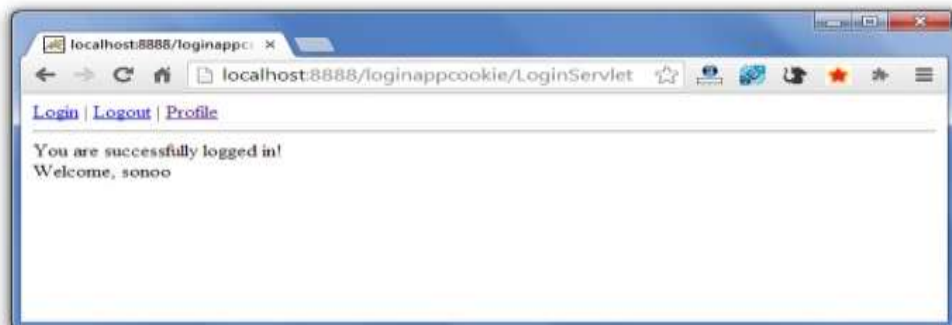*File: web.xml*

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://java.sun.com/xml/ns/javaee" xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd" id="WebApp_ID" version="2.5">

  <servlet>
   <description></description>
   <display-name>LoginServlet</display-name>
   <servlet-name>LoginServlet</servlet-name>
   <servlet-class>com.javatpoint.LoginServlet</servlet-class>
  </servlet>
  <servlet-mapping>
   <servlet-name>LoginServlet</servlet-name>
   <url-pattern>/LoginServlet</url-pattern>
  </servlet-mapping>
  <servlet>
   <description></description>
   <display-name>ProfileServlet</display-name>
   <servlet-name>ProfileServlet</servlet-name>
   <servlet-class>com.javatpoint.ProfileServlet</servlet-class>
  </servlet>
  <servlet-mapping>
   <servlet-name>ProfileServlet</servlet-name>
   <url-pattern>/ProfileServlet</url-pattern>
  </servlet-mapping>
  <servlet>
   <description></description>
   <display-name>LogoutServlet</display-name>
   <servlet-name>LogoutServlet</servlet-name>
   <servlet-class>com.javatpoint.LogoutServlet</servlet-class>
  </servlet>
  <servlet-mapping>
   <servlet-name>LogoutServlet</servlet-name>
   <url-pattern>/LogoutServlet</url-pattern>
```
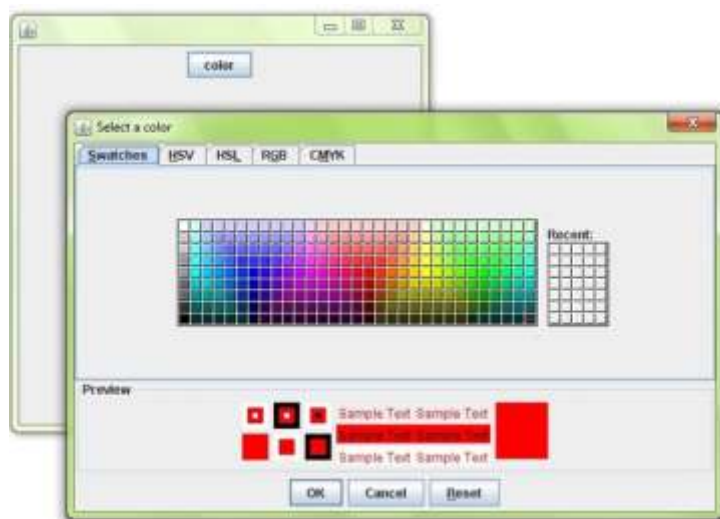
```
    </servlet-mapping>
</web-app>
```

OutPUT:

Q6.write a program to jcolorchooser with actionlistner?

```java
import java.awt.event.*;
import java.awt.*;
import javax.swing.*;
public class ColorChooserExample extends JFrame implements ActionListener {
JButton b;
Container c;
ColorChooserExample(){
    c=getContentPane();
    c.setLayout(new FlowLayout());
    b=new JButton("color");
    b.addActionListener(this);
    c.add(b);
}
public void actionPerformed(ActionEvent e) {
Color initialcolor=Color.RED;
Color color=JColorChooser.showDialog(this,"Select a color",initialcolor);
c.setBackground(color);
}

public static void main(String[] args) {
    ColorChooserExample ch=new ColorChooserExample();
    ch.setSize(400,400);
    ch.setVisible(true);
    ch.setDefaultCloseOperation(EXIT_ON_CLOSE);
}
}
```

OUTPUT:

Q7.Write a program to create url in java?

```java
import java.net.*;
public class URLDemo{
public static void main(String[] args){
try{
URL url=new URL("http://www.javatpoint.com/java-tutorial");

System.out.println("Protocol: "+url.getProtocol());
System.out.println("Host Name: "+url.getHost());
System.out.println("Port Number: "+url.getPort());
System.out.println("File Name: "+url.getFile());

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

OUTPUT:

Protocol: http
Host Name: www.javatpoint.com
Port Number: -1
File Name: /java-tutorial

Q8.write a program to linkedhashset in java ?

```java
import java.util.*;
class LinkedHashSet1{
 public static void main(String args[]){
 //Creating HashSet and adding elements
    LinkedHashSet<String> set=new LinkedHashSet();
        set.add("One");
        set.add("Two");
        set.add("Three");
        set.add("Four");
        set.add("Five");
        Iterator<String> i=set.iterator();
        while(i.hasNext())
        {
        System.out.println(i.next());
        }
 }
 }
```

Q9.write a program to create jprogressbar?

```java
import javax.swing.*;
public class ProgressBarExample extends JFrame{
JProgressBar jb;
int i=0,num=0;
ProgressBarExample(){
jb=new JProgressBar(0,2000);
jb.setBounds(40,40,160,30);
jb.setValue(0);
jb.setStringPainted(true);
add(jb);
setSize(250,150);
setLayout(null);
}
public void iterate(){
while(i<=2000){
 jb.setValue(i);
 i=i+20;
 try{Thread.sleep(150);}catch(Exception e){}
}
}
public static void main(String[] args) {
   ProgressBarExample m=new ProgressBarExample();
   m.setVisible(true);
   m.iterate();
}
}
```

Q10.write a program to showmessage dialog show input dialog in java and conformation dialog?

```java
import java.awt.BorderLayout;

import java.awt.FlowLayout;

import java.awt.LayoutManager;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;


import javax.swing.JButton;

import javax.swing.JFrame;
```

```java
import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JPanel;


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

    createWindow();

  }


  private static void createWindow() {

    JFrame frame = new JFrame("Swing Tester");

    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

    createUI(frame);

    frame.setSize(560, 200);

    frame.setLocationRelativeTo(null);

    frame.setVisible(true);

  }


  private static void createUI(final JFrame frame){

    JPanel panel = new JPanel();

    LayoutManager layout = new FlowLayout();

    panel.setLayout(layout);


    JButton button = new JButton("Click Me!");

    final JLabel label = new JLabel();

    button.addActionListener(new ActionListener() {

      @Override

      public void actionPerformed(ActionEvent e) {

        int result = JOptionPane.showConfirmDialog(frame,"Sure? You want to exit?", "Swing Tester",

          JOptionPane.YES_NO_OPTION,

          JOptionPane.QUESTION_MESSAGE);

        if(result == JOptionPane.YES_OPTION){

          label.setText("You selected: Yes");

        }else if (result == JOptionPane.NO_OPTION){
```

```java
            label.setText("You selected: No");

        }else {

            label.setText("None selected");

        }

    }

});


    panel.add(button);

    panel.add(label);

    frame.getContentPane().add(panel, BorderLayout.CENTER);

  }

}
```
OUTPUT: