Practical 10

```java
package ajp;


import java.awt.*;

import java.awt.event.*;


public class RegistrationFormAWT implements ActionListener, ItemListener{


    Frame f;

    Label lblEnrol, lblFname, lblMname, lblLname, lblDOB, lblGender, lblBranch, lblAdd, lblCity, lblState, lblMob, lblHobbies, lblLang, lblResult;

    TextField tfEnrol, tfFname, tfMname, tfLname, tfDOB, tfBranch, tfState, tfMob;

    TextArea taAdd, taResult;

    Choice chCity;

    List liHobbies;

    Checkbox rbMale, rbFemale, cbEnglish, cbGujarati, cbHindi;

    CheckboxGroup cbgGender;

    Button btnSubmit, btnReset;


    MenuBar mb;

    Menu mFile, mEdit, mRefactor;

    MenuItem miNew, miSave, miExit, miCut, miCopy, miPaste, miRename, miMove;


    String cityList[] = {"Rajkot", "Jamnagar", "Junagadh", "Ahmedabad", "Surat", "Vadodra"};

    String hobbiesList[] = {"Reading", "Writing", "Listing music", "Dancing", "Drawing"};


    String txtGender, txtCity, txtHobbies="", txtLang;


    RegistrationFormAWT() {


        f = new Frame("Registration Form");

        f.setSize(800, 900);

        f.setLayout(null);
```

```java
f.setVisible(true);

mb = new MenuBar();

mFile = new Menu("File");
miNew = new MenuItem("New");
miSave = new MenuItem("Save");
miExit = new MenuItem("Exit");

mFile.add(miNew);
mFile.add(miSave);
mFile.add(miExit);

mb.add(mFile);

mEdit = new Menu("Edit");
miCut = new MenuItem("Cut");
miCopy = new MenuItem("Copy");
miPaste = new MenuItem("Paste");

mEdit.add(miCut);
mEdit.add(miCopy);
mEdit.add(miPaste);

mb.add(mEdit);

mRefactor = new Menu("Refactor");
miRename = new MenuItem("Rename");
miMove = new MenuItem("Move");

mRefactor.add(miRename);
mRefactor.add(miMove);
```

```java
        mb.add(mRefactor);

        f.setMenuBar(mb);

        miNew.addActionListener(this);

        miSave.addActionListener(this);

        miExit.addActionListener(this);

        miCut.addActionListener(this);

        miCopy.addActionListener(this);

        miPaste.addActionListener(this);

        miRename.addActionListener(this);

        miMove.addActionListener(this);


        /* Enrollment Number */
        lblEnrol = new Label("Enrollment Number : ");

        lblEnrol.setBounds(80, 50, 150, 30);

        f.add(lblEnrol);

        tfEnrol = new TextField();

        tfEnrol.setBounds(250, 50, 150, 25);

        f.add(tfEnrol);

        /* First Name */
        lblFname = new Label("First Name : ");

        lblFname.setBounds(80, 100, 150, 30);

        f.add(lblFname);

        tfFname = new TextField();

        tfFname.setBounds(250, 100, 150, 25);

        f.add(tfFname);

        /* Middle Name */
```

```java
lblMname = new Label("Middle Name : ");

lblMname.setBounds(80, 150, 150, 30);

f.add(lblMname);


tfMname = new TextField();

tfMname.setBounds(250, 150, 150, 25);

f.add(tfMname);


/* Last Name */
lblLname = new Label("Last Name : ");

lblLname.setBounds(80, 200, 150, 30);

f.add(lblLname);


tfLname = new TextField();

tfLname.setBounds(250, 200, 150, 25);

f.add(tfLname);


/* DOB */
lblDOB = new Label("Date of Birth : ");

lblDOB.setBounds(80, 250, 150, 30);

f.add(lblDOB);


tfDOB = new TextField();

tfDOB.setBounds(250, 250, 150, 25);

f.add(tfDOB);


/* Gender */
lblGender = new Label("Gender : ");

lblGender.setBounds(80, 300, 150, 30);

f.add(lblGender);


cbgGender = new CheckboxGroup();

rbMale = new Checkbox("Male", cbgGender, true);
```

```java
rbMale.setBounds(250, 300, 60, 25);

f.add(rbMale);


rbFemale = new Checkbox("Female", cbgGender, false);

rbFemale.setBounds(340, 300, 60, 25);

f.add(rbFemale);


rbMale.addItemListener(this);

rbFemale.addItemListener(this);


/* Branch */

lblBranch = new Label("Branch : ");

lblBranch.setBounds(80, 350, 150, 30);

f.add(lblBranch);


tfBranch = new TextField();

tfBranch.setBounds(250, 350, 150, 25);

f.add(tfBranch);


/* Address */

lblAdd = new Label("Address : ");

lblAdd.setBounds(80, 400, 150, 30);

f.add(lblAdd);


taAdd = new TextArea();

taAdd.setBounds(250, 400, 150, 55);

f.add(taAdd);


/* City */

lblCity = new Label("City : ");

lblCity.setBounds(80, 480, 150, 30);

f.add(lblCity);
```

```java
chCity = new Choice();

chCity.setBounds(250, 480, 150, 60);

f.add(chCity);


for(int i=0; i<cityList.length; i++) {

        chCity.add(cityList[i]);

}


chCity.addItemListener(this);


/* State */

lblState = new Label("State : ");

lblState.setBounds(80, 530, 150, 30);

f.add(lblState);


tfState = new TextField();

tfState.setBounds(250, 530, 150, 25);

f.add(tfState);


/* Mobile Number */

lblMob = new Label("Mobile Number : ");

lblMob.setBounds(80, 580, 150, 30);

f.add(lblMob);


tfMob = new TextField();

tfMob.setBounds(250, 580, 150, 25);

f.add(tfMob);


/* Hobbies */

lblHobbies = new Label("Hobbies : ");

lblHobbies.setBounds(80, 630, 150, 30);

f.add(lblHobbies);
```

```java
liHobbies = new List(3, true);

liHobbies.setBounds(250, 630, 150, 55);

f.add(liHobbies);


for(int i=0; i<hobbiesList.length; i++) {

        liHobbies.add(hobbiesList[i]);

}


liHobbies.addItemListener(this);


/* Language known */

lblLang = new Label("Language known : ");

lblLang.setBounds(80, 700, 150, 30);

f.add(lblLang);


cbEnglish = new Checkbox("English");

cbEnglish.setBounds(250, 700, 60, 25);

f.add(cbEnglish);


cbHindi = new Checkbox("Hindi");

cbHindi.setBounds(250, 720, 60, 25);

f.add(cbHindi);


cbGujarati = new Checkbox("Gujarati");

cbGujarati.setBounds(250, 740, 60, 25);

f.add(cbGujarati);


cbEnglish.addItemListener(this);

cbHindi.addItemListener(this);

cbGujarati.addItemListener(this);


/* Buttons */

btnSubmit = new Button("Submit");
```

```java
        btnSubmit.setBounds(130, 780, 100, 30);

        f.add(btnSubmit);


        btnSubmit.addActionListener(this);


        btnReset = new Button("Reset");

        btnReset.setBounds(280, 780, 100, 30);

        f.add(btnReset);


        btnReset.addActionListener(this);


        /* Result */

        lblResult = new Label("Result");

        lblResult.setBounds(430, 260, 150, 30);

        f.add(lblResult);


        taResult = new TextArea();

        taResult.setBounds(430, 300, 350, 150);

        f.add(taResult);


        f.addWindowListener(new WindowAdapter() {

                public void windowClosing(WindowEvent we) {

                        System.exit(0);

                }

        });

}


public static void main(String[] args) {

        // TODO Auto-generated method stub

        RegistrationFormAWT obj = new RegistrationFormAWT();

}


@Override
```

```java
public void itemStateChanged(ItemEvent e) {

        // TODO Auto-generated method stub

        if(rbMale.getState() == true)

                txtGender = "Male";

        else

                txtGender = "Female";


        txtCity = chCity.getSelectedItem();


        if (cbEnglish.getState() == true && cbHindi.getState() == true && cbGujarati.getState() == true)

                txtLang = "English, Hindi, Gujarati";

        else if (cbEnglish.getState() == true && cbHindi.getState() == true)

                txtLang = "English, Hindi";

        else if (cbHindi.getState() == true && cbGujarati.getState() == true)

                txtLang = "Hindi, Gujarati";

        else if (cbEnglish.getState() == true && cbGujarati.getState() == true)

                txtLang = "English, Gujarati";

        else if (cbEnglish.getState() == true)

                txtLang = "English";

        else if (cbHindi.getState() == true)

                txtLang = "Hindi";

        else

                txtLang = "Gujarati";
}


@Override
public void actionPerformed(ActionEvent e) {


        // TODO Auto-generated method stub

        String hobby[] = liHobbies.getSelectedItems();

        for(int i=0; i<hobby.length; i++)

                txtHobbies += hobby[i] + ", ";
```

```java
if(e.getSource() == btnSubmit) {
        taResult.setText("Enrollment Number : " + tfEnrol.getText() + "\n"
                                        + "First Name : " + tfFname.getText() + "\n"
                                        + "Middle Name : " + tfMname.getText() + "\n"
                                        + "Last Name : " + tfLname.getText() + "\n"
                                        + "Date of Birth : " + tfDOB.getText() + "\n"
                                        + "Gender : " + txtGender + "\n"
                                        + "Branch : " + tfBranch.getText() + "\n"
                                        + "Address : " + taAdd.getText() + "\n"
                                        + "City : " + txtCity + "\n"
                                        + "State : " + tfState.getText() + "\n"
                                        + "Mobile Number : " + tfMob.getText() + "\n"
                                        + "Hobbies : " + txtHobbies + "\n"
                                        + "Language known : " + txtLang + "\n");
}
if(e.getSource() == btnReset) {
        tfEnrol.setText("");
        tfFname.setText("");
        tfMname.setText("");
        tfLname.setText("");
        tfDOB.setText("");
        rbMale.setState(true);
        tfBranch.setText("");
        taAdd.setText("");
        chCity.select(0);
        tfState.setText("");
        tfMob.setText("");
        for (int i=0; i<hobbiesList.length; i++)
                liHobbies.deselect(i);
        cbEnglish.setState(false);
        cbHindi.setState(false);
        cbGujarati.setState(false);
```

```java
                taResult.setText("");
        }

        if(e.getSource() == miNew)

                taResult.setText("Menu item : New");

        else if(e.getSource() == miSave)

                taResult.setText("Menu item : Save");

        else if(e.getSource() == miExit)

                taResult.setText("Menu item : Exit");

        else if(e.getSource() == miCut)

                taResult.setText("Menu item : Cut");

        else if(e.getSource() == miCopy)

                taResult.setText("Menu item : Copy");

        else if(e.getSource() == miPaste)

                taResult.setText("Menu item : Paste");

        else if(e.getSource() == miRename)

                taResult.setText("Menu item : Rename");

        else if(e.getSource() == miMove)

                taResult.setText("Menu item : Move");

    }
}
```

Using swing

```java
package ajp;


import javax.swing.*;

import java.awt.event.*;


public class RegistrationFormSwing implements ActionListener, ItemListener{


    JFrame f;

    JLabel lblEnrol, lblFname, lblMname, lblLname, lblDOB, lblGender, lblBranch, lblAdd, lblCity, lblState, lblMob,
lblHobbies, lblLang, lblResult;

    JTextField tfEnrol, tfFname, tfMname, tfLname, tfDOB, tfBranch, tfState, tfMob;
```

```java
JTextArea taAdd, taResult;

JComboBox chCity;

JList liHobbies;

JRadioButton rbMale, rbFemale;

ButtonGroup rgGender;

JCheckBox cbEnglish, cbGujarati, cbHindi;

JButton btnSubmit, btnReset;


String cityList[] = {"Rajkot", "Jamnagar", "Junagadh", "Ahmedabad", "Surat", "Vadodra"};

String hobbiesList[] = {"Reading", "Writing", "Dancing", "Drawing"};


String txtGender, txtCity, txtHobbies="", txtLang;


RegistrationFormSwing() {

        f = new JFrame("Registration Form");

        f.setSize(900, 900);

        f.setLayout(null);

        f.setVisible(true);

        f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);


        /* Enrollment Number */

        lblEnrol = new JLabel("Enrollment Number : ");

        lblEnrol.setBounds(80, 30, 150, 30);

        f.add(lblEnrol);


        tfEnrol = new JTextField();

        tfEnrol.setBounds(250, 30, 150, 25);

        f.add(tfEnrol);


        /* First Name */

        lblFname = new JLabel("First Name : ");

        lblFname.setBounds(80, 80, 150, 30);

        f.add(lblFname);
```

```java
tfFname = new JTextField();

tfFname.setBounds(250, 80, 150, 25);

f.add(tfFname);


/* Middle Name */

lblMname = new JLabel("Middle Name : ");

lblMname.setBounds(80, 130, 150, 30);

f.add(lblMname);


tfMname = new JTextField();

tfMname.setBounds(250, 130, 150, 25);

f.add(tfMname);


/* Last Name */

lblLname = new JLabel("Last Name : ");

lblLname.setBounds(80, 180, 150, 30);

f.add(lblLname);


tfLname = new JTextField();

tfLname.setBounds(250, 180, 150, 25);

f.add(tfLname);


/* DOB */

lblDOB = new JLabel("Date of Birth : ");

lblDOB.setBounds(80, 230, 150, 30);

f.add(lblDOB);


tfDOB = new JTextField();

tfDOB.setBounds(250, 230, 150, 25);

f.add(tfDOB);


/* Gender */
```

```java
lblGender = new JLabel("Gender : ");

lblGender.setBounds(80, 280, 150, 30);

f.add(lblGender);


rbMale = new JRadioButton("Male", true);

rbMale.setBounds(250, 280, 60, 25);

f.add(rbMale);


rbFemale = new JRadioButton("Female", false);

rbFemale.setBounds(320, 280, 70, 25);

f.add(rbFemale);


rgGender = new ButtonGroup();

rgGender.add(rbMale);

rgGender.add(rbFemale);


rbMale.addItemListener(this);

rbFemale.addItemListener(this);


/* Branch */

lblBranch = new JLabel("Branch : ");

lblBranch.setBounds(80, 330, 150, 30);

f.add(lblBranch);


tfBranch = new JTextField();

tfBranch.setBounds(250, 330, 150, 25);

f.add(tfBranch);


/* Address */

lblAdd = new JLabel("Address : ");

lblAdd.setBounds(80, 380, 150, 30);

f.add(lblAdd);
```

```java
taAdd = new JTextArea();

taAdd.setBounds(250, 380, 150, 55);

f.add(taAdd);


/* City */

lblCity = new JLabel("City : ");

lblCity.setBounds(80, 460, 150, 30);

f.add(lblCity);


chCity = new JComboBox(cityList);

chCity.setBounds(250, 460, 150, 25);

f.add(chCity);


chCity.addItemListener(this);


/* State */

lblState = new JLabel("State : ");

lblState.setBounds(80, 505, 150, 30);

f.add(lblState);


tfState = new JTextField();

tfState.setBounds(250, 505, 150, 25);

f.add(tfState);


/* Mobile Number */

lblMob = new JLabel("Mobile Number : ");

lblMob.setBounds(80, 555, 150, 30);

f.add(lblMob);


tfMob = new JTextField();

tfMob.setBounds(250, 555, 150, 25);

f.add(tfMob);
```

```java
/* Hobbies */
lblHobbies = new JLabel("Hobbies : ");
lblHobbies.setBounds(80, 605, 150, 30);
f.add(lblHobbies);


liHobbies = new JList(hobbiesList);
liHobbies.setBounds(250, 605, 150, 70);
f.add(liHobbies);


/* Language known */
lblLang = new JLabel("Language known : ");
lblLang.setBounds(80, 690, 150, 30);
f.add(lblLang);


cbEnglish = new JCheckBox("English");
cbEnglish.setBounds(250, 690, 80, 25);
f.add(cbEnglish);


cbHindi = new JCheckBox("Hindi");
cbHindi.setBounds(250, 710, 80, 25);
f.add(cbHindi);


cbGujarati = new JCheckBox("Gujarati");
cbGujarati.setBounds(250, 730, 80, 25);
f.add(cbGujarati);


cbEnglish.addItemListener(this);
cbHindi.addItemListener(this);
cbGujarati.addItemListener(this);


/* Buttons */
btnSubmit = new JButton("Submit");
btnSubmit.setBounds(130, 760, 100, 30);
```

```java
        f.add(btnSubmit);


        btnSubmit.addActionListener(this);


        btnReset = new JButton("Reset");

        btnReset.setBounds(280, 760, 100, 30);

        f.add(btnReset);


        btnReset.addActionListener(this);


        /* Result */

        lblResult = new JLabel("Result");

        lblResult.setBounds(430, 260, 150, 30);

        f.add(lblResult);


        taResult = new JTextArea();

        taResult.setBounds(430, 300, 400, 200);

        f.add(taResult);
    }


public static void main(String[] args) {

        // TODO Auto-generated method stub

        RegistrationFormSwing obj = new RegistrationFormSwing();

}


@Override

public void itemStateChanged(ItemEvent e) {

        // TODO Auto-generated method stub

        if(rbMale.isSelected() == true)

                txtGender = "Male";

        else

                txtGender = "Female";
```

```java
        txtCity = chCity.getSelectedItem().toString();


        if (cbEnglish.isSelected() == true && cbHindi.isSelected() == true && cbGujarati.isSelected() == true)
                txtLang = "English, Hindi, Gujarati";
        else if (cbEnglish.isSelected() == true && cbHindi.isSelected() == true)
                txtLang = "English, Hindi";
        else if (cbHindi.isSelected() == true && cbGujarati.isSelected() == true)
                txtLang = "Hindi, Gujarati";
        else if (cbEnglish.isSelected() == true && cbGujarati.isSelected() == true)
                txtLang = "English, Gujarati";
        else if (cbEnglish.isSelected() == true)
                txtLang = "English";
        else if (cbHindi.isSelected() == true)
                txtLang = "Hindi";
        else
                txtLang = "Gujarati";
}


@Override
public void actionPerformed(ActionEvent e) {

        // TODO Auto-generated method stub
        int hobby[] = liHobbies.getSelectedIndices();
        for(int i=0; i<hobby.length; i++)
                txtHobbies += liHobbies.getModel().getElementAt(hobby[i]) + ", ";


        if(e.getSource() == btnSubmit) {
                taResult.setText("Enrollment Number : " + tfEnrol.getText() + "\n"
                                                + "First Name : " + tfFname.getText() + "\n"
                                                + "Middle Name : " + tfMname.getText() + "\n"
                                                + "Last Name : " + tfLname.getText() + "\n"
                                                + "Date of Birth : " + tfDOB.getText() + "\n"
                                                + "Gender : " + txtGender + "\n"
```

```java
                                                        + "Branch : " + tfBranch.getText() + "\n"

                                                        + "Address : " + taAdd.getText() + "\n"

                                                        + "City : " + txtCity + "\n"

                                                        + "State : " + tfState.getText() + "\n"

                                                        + "Mobile Number : " + tfMob.getText() + "\n"

                                                        + "Hobbies : " + txtHobbies + "\n"

                                                        + "Language known : " + txtLang + "\n");

        }
        if(e.getSource() == btnReset) {

                tfEnrol.setText("");

                tfFname.setText("");

                tfMname.setText("");

                tfLname.setText("");

                tfDOB.setText("");

                rbMale.setSelected(false);

                tfBranch.setText("");

                taAdd.setText("");

                chCity.setSelectedIndex(0);

                tfState.setText("");

                tfMob.setText("");

                liHobbies.clearSelection();

                cbEnglish.setSelected(false);

                cbHindi.setSelected(false);

                cbGujarati.setSelected(false);


                taResult.setText("");

        }
    }
}
```