

Question two:

ID	Name	Gender	Address	Contact
----	------	--------	---------	---------

```
/*import javax.swing.*;
```

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

```
import java.awt.event.ActionEvent;
```

```
import java.awt.event.ActionListener;
```

```
* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to
```

```
change this license
```

```
*/
```

```
package com.mycompany.registrationform4;
```

```
import java.awt.Color;
```

```
import java.awt.GridBagConstraints;
```

```
import java.awt.GridBagLayout;
```

```
import java.awt.Insets;
```

```
import java.awt.event.ActionEvent;
```

```
import java.awt.event.ActionListener;
```

```
import javax.swing.ButtonGroup;
```

```
import javax.swing.JButton;
```

```
import javax.swing.JFrame;
```

```
import javax.swing.JLabel;
```

```
import javax.swing.JOptionPane;
```

```
import javax.swing.JRadioButton;
```

```
import javax.swing.JScrollPane;
```

```
import javax.swing.JTable;
```

```
import javax.swing.JTextField;
```

```
import javax.swing.table.DefaultTableModel;
```

```
/**
```

```
*
```

```
* @author muhia
```

```
*/
```

```
public class UserForm extends JFrame {
```

```
    // Constructor to set up the GUI
```

```
    public UserForm() {
```

```
        // Set the frame title
```

```
        setTitle("User Information Form");
```

```
        // Set the layout manager
```

```
setLayout(new GridBagLayout());
```

```
GridBagConstraints gbc = new GridBagConstraints();
```

```
gbc.insets = new Insets(10, 10, 10, 10); // Add padding
```

```
// Create components
```

```
JLabel idLabel = new JLabel("User ID:");
```

```
JTextField idField = new JTextField(20); // Enlarge text fields
```

```
JLabel nameLabel = new JLabel("Name:");
```

```
JTextField nameField = new JTextField(20); // Enlarge text fields
```

```
JLabel addressLabel = new JLabel("Address:");
```

```
JTextField addressField = new JTextField(20); // Enlarge text fields
```

```
JLabel contactLabel = new JLabel("Contact:");
```

```
JTextField contactField = new JTextField(20); // Enlarge text fields
```

```
JLabel genderLabel = new JLabel("Gender:");
```

```
JRadioButton maleButton = new JRadioButton("Male");
```

```
JRadioButton femaleButton = new JRadioButton("Female");
```

```
// Group the radio buttons
```

```
ButtonGroup genderGroup = new ButtonGroup();
```

```
genderGroup.add(maleButton);
```

```
genderGroup.add(femaleButton);
```

```
JButton registerButton = new JButton("Register");
```

```
JButton exitButton = new JButton("Exit");
```

```
// Create table to display user information
```

```
String[] columnNames = {"ID", "Name", "Gender", "Address", "Contact"};
```

```
DefaultTableModel tableModel = new DefaultTableModel(columnNames, 0);
```

```
JTable userTable = new JTable(tableModel);
```

```
JScrollPane tableScrollPane = new JScrollPane(userTable);
```

```
// Add components to the frame
```

```
// Left-side components (input fields)
```

```
gbc.gridx = 0;
```

```
gbc.gridy = 0;
```

```
gbc.anchor = GridBagConstraints.WEST;
```

```
add(idLabel, gbc);
```

```
gbc.gridx = 1;
```

```
add(idField, gbc);
```

```
gbc.gridx = 0;
```

```
gbc.gridy = 1;
```

```
add(nameLabel, gbc);
```

```
gbc.gridx = 1;
```

```
add(nameField, gbc);
```

```
gbc.gridx = 0;
```

```
gbc.gridy = 2;
```

```
add(addressLabel, gbc);
```

```
gbc.gridx = 1;
```

```
add(addressField, gbc);
```

```
gbc.gridx = 0;
```

```
gbc.gridy = 3;
```

```
add(contactLabel, gbc);
```

```
gbc.gridx = 1;
```

```
add(contactField, gbc);
```

```
gbc.gridx = 0;
```

```
gbc.gridy = 4;
```

```
add(genderLabel, gbc);
```

```
gbc.gridx = 1;
```

```
add(maleButton, gbc);
```

```
gbc.gridx = 1;
```

```
gbc.gridy = 5;
```

```
add(femaleButton, gbc);
```

```
gbc.gridx = 0;
```

```
gbc.gridy = 6;
```

```
add(registerButton, gbc);
```



```
gbc.gridx = 1;
```

```
add(exitButton, gbc);
```

```
// Right-side component (table for displaying data)
```

```
gbc.gridx = 2;
```

```
gbc.gridy = 0;
```

```
gbc.gridheight = 7; // Span vertically across all input fields
```

```
gbc.fill = GridBagConstraints.BOTH; // Make table expand
```

```
add(tableScrollPane, gbc);
```

```
// Action listener for Register button
```

```
registerButton.addActionListener((ActionEvent e) -> {
```

```
    String id = idField.getText();
```

```
    String name1 = nameField.getText();
```

```
    String address = addressField.getText();
```

```
String contact = contactField.getText();

String gender = maleButton.isSelected() ? "Male" : (femaleButton.isSelected() ?
"Female" : "Not selected");

// Validate inputs

if (id.isEmpty() || name1.isEmpty() || address.isEmpty() || contact.isEmpty() ||
gender.equals("Not selected")) {

    JOptionPane.showMessageDialog(null, "Please fill all fields and select gender!",
"Input Error", JOptionPane.ERROR_MESSAGE);

} else {

    // Add data to the table

    tableModel.addRow(new Object[]{id, name1, gender, address, contact});

    // Clear input fields

    idField.setText("");

    nameField.setText("");

    addressField.setText("");

    contactField.setText("");

    genderGroup.clearSelection();
```

```
}

});

// Action listener for Exit button

exitButton.addActionListener((ActionEvent e) -> {

    System.exit(0); // Exit the application

});

// Set frame properties

getContentPane().setBackground(Color.BLUE); // Set frame background color

setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

setSize(800, 400); // Adjust frame size

setVisible(true); // Make frame visible

}

// Main method to run the application
```

```
public static void main(String[] args) {
```

```
    UserForm userForm = new UserForm();
```

```
}
```

```
}
```