



UMS
UNIVERSITI MALAYSIA SABAH

KP14603 PROJECT ORIENTED PROGRAMMING

SEMESTER II

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**INDIVIDU PROJECT REPORT
CLUB REGISTRATION FORM**

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INTRODUCTION

GUI stands for Graphical User Interface. It refers to an interface that allows one to interact with electronic devices like computers and tablets through graphic elements. It uses icons, menus and other graphical representations to display information, as opposed to text-based commands. The graphic elements enable users to give commands to the computer and select functions by using mouse or other input devices.

In this project, club registration form it use a simple programming to show how this program will be run. There are four common classes that be used, such as JFrame to makes a window, JLabel to display text, JButton for clicking, JTextfield for text input. The function for this program are to make easy any of us to full fill the information that be needed when we want to register the club member. Besides, it will be easy to see the that what already submit.

OBJECTIVE

- 1.** To make easy for registration.
- 2.** To make sure all the data will be saved.
- 3.** To see the data of application/registration based on the form.

JAVA CODE

```
//NAME          : NUR SHABIRAH BINTI BACO  
//NO MATRIC     : BI19110037  
//PROJECT TITILE : CLUB REGISTRATION FORM
```

```
package testregistration;  
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;
```

```
class RegisForm implements ActionListener
```

```
{  
    JFrame frame = new JFrame("Registration Club Form");  
    Container con = frame.getContentPane();  
    JLabel lhead,lname,lemail,lcourse,lgender,lclub;  
    JTextField tname,temail, tcourse, tclub;  
    JRadioButton r1,r2;  
    ButtonGroup gender = new ButtonGroup();  
    JCheckBox term;  
    JButton submit,reset;  
    JTextArea display;  
  
    RegisForm()  
    {  
        frame.setBounds(150,90,750,500);  
        frame.setVisible(true);  
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
        con.setLayout(null);  
        con.setBackground(Color.YELLOW);  
  
        Font f = new Font("Times New Roman", Font.BOLD,20);  
        lhead = new JLabel ("Registration Club Form");  
        lhead.setBounds(250,5,400,35);
```

```
lhead.setFont(f);  
con.add(lhead);
```

```
lname = new JLabel ("Name");  
lname.setBounds(50,50,60,30);  
con.add(lname);
```

```
lemail = new JLabel ("Email");  
lemail.setBounds(50,150,60,30);  
con.add(lemail);
```

```
lgender = new JLabel ("Gender");  
lgender.setBounds(50,100,60,30);  
con.add(lgender);
```

```
lcourse = new JLabel ("Course");  
lcourse.setBounds(50,200,60,30);  
con.add(lcourse);
```

```
lclub = new JLabel ("Club");  
lclub.setBounds(50,250,60,30);  
con.add(lclub);
```

```
tname = new JTextField();  
tname.setBounds(130,53,180,20);  
con.add(tname);
```

```
r1= new JRadioButton("Male");  
r1.setBounds(130,100,60,30);  
r1.setBackground(Color.YELLOW);  
con.add(r1);
```

```
r2= new JRadioButton("Female");  
r2.setBounds(230,100,80,30);  
r2.setBackground(Color.YELLOW);
```

```
con.add(r2);
```

```
gender.add(r1);
```

```
gender.add(r2);
```

```
temail = new JTextField();
```

```
temail.setBounds(130,150,180,20);
```

```
con.add(temail);
```

```
tcourse = new JTextField();
```

```
tcourse.setBounds(130,200,180,20);
```

```
con.add(tcouse);
```

```
tclub = new JTextField();
```

```
tclub.setBounds(130,250,180,20);
```

```
con.add(tclub);
```

```
term = new JCheckBox("I accept term and condition");
```

```
term.setBounds(70,300,250,25);
```

```
term.setBackground(Color.yellow);
```

```
con.add(term);
```

```
submit = new JButton ("SUBMIT");
```

```
submit.setBounds(100,350,80,25);
```

```
con.add(submit);
```

```
reset = new JButton ("RESET");
```

```
reset.setBounds(200,350,80,25);
```

```
con.add(reset);
```

```
Color cc = new Color(170,170,170);
```

```
Font ff = new Font ("Times New Roman", Font.BOLD,15);
```

```
display = new JTextArea();
```

```
display.setBounds(400,50,300,350);
```

```
con.add(display);
```

```

        display.setFont(ff);
        display.setBackground(cc);
        display.setForeground(Color.WHITE);
        display.setEditable(false);

        submit.addActionListener(this);
        reset.addActionListener(this);

    }

    public void actionPerformed(ActionEvent e)
    {
        String ch = e.getActionCommand();
        if(ch == "SUBMIT")
        {
            if(term.isSelected())
            {
                String name = tname.getText();
                String email = temail.getText();
                String course = tcourse.getText();
                String club = tclub.getText();
                String gen = "Male";
                if(r2.isSelected())
                {
                    gen = "Female";
                }

                display.setText("\n\nName:    "+name+"\nGender:    "+gen+"\nEmail: "+email+"\nCourse: "+course+"\nClub: "+club+"\n");
            }
            else
            {
                display.setText ("Please Agree Our Terms and Conditions");
            }
        }
        else

```



```

    {
        tname.setText(null);
        temail.setText(null);
        tcourse.setText(null);
        tclub.setText(null);
        display.setText(null);

        gender.clearSelection();
        term.setSelected(false);
    }
}

class TESTREGISTRATION {

    public static void main(String[] args) {
        RegisForm r = new RegisForm();
    }

}

```

OBJECT ORIENTED CONCEPT IMPLEMENTATION

1. Object & classes

A class is a blue print of a particular classification of object. An object belongs to a class of object. An object is an instance of a class. A class can be used to create any number of objects, all of the same form, but possibly containing different data.

```
class RegisForm implements ActionListener
{
    JFrame frame = new JFrame("Club Registration Form");
    Container con = frame.getContentPane();
    JLabel lhead, lname, lemail, lcourse, lgender, lclub;
    JTextField tname, temail, tcourse, tclub;
    JRadioButton r1, r2;
    ButtonGroup gender = new ButtonGroup();
    JCheckBox term;
    JButton submit, reset;
    JTextArea display;
```

2. Encapsulation

Encapsulation refers to the bundling of data with the methods that operate on that data, or the restricting of direct access to some of an object's components. Encapsulation is used to hide the values or state of a structured data object inside a class.

1. Public void actionPerformed

```
public void actionPerformed(ActionEvent e)
{
    String ch = e.getActionCommand();
    if(ch == "SUBMIT")
    {
        if(term.isSelected())
        {
            String name = tname.getText();
            String email = temail.getText();
            String course = tcourse.getText();
            String club = tclub.getText();
            String gen = "Male";
            if(r2.isSelected())
            {
                gen = "Female";
            }

            display.setText("\n\nName: "+name+"\nGender: "+gen+"\nEmail: "+email+"\nCourse: "+course+"\nClub: "+club+"\n");
        }
        else
        {
            display.setText("Please Agree Our Terms and Conditions");
        }
    }
}
```

2. Public static void

```
public static void main(String[] args) {
    RegisForm r = new RegisForm();
}
```

3. Interface

Inside any implementation class, cannot change the variables declared in interface because by default, they are public, static and final. If there are two or more methods in two interfaces and a class implements both interfaces, implementation of the method once is enough.

- Class RegisForm implements ActionListener

```
package testregistration;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

class RegisForm implements ActionListener
{
    JFrame frame = new JFrame("Club Registration Form");
    Container con = frame.getContentPane();
    JLabel lhead, lname, lemail, lcouse, lgender, lclub;
    JTextField tname, temail, tcourse, tclub;
    JRadioButton r1, r2;
    ButtonGroup gender = new ButtonGroup();
    JCheckBox term;
    JButton submit, reset;
    JTextArea display;
```

4. Inner class

```
public static void main(String[] args) {
    RegisForm r = new RegisForm();
}
}
```

5. Abstraction

Abstraction is a process of hiding the implementation details and showing only functionality to the user. Another way, it shows only essential things to the user and hides the internal details. This is important because it lets avoid repeating

```
JFrame frame = new JFrame("Club Registration Form");
Container con = frame.getContentPane();
JLabel lhead, lname, lemail, lcouse, lgender, lclub;
JTextField tname, temail, tcourse, tclub;
JRadioButton r1, r2;
ButtonGroup gender = new ButtonGroup();
JCheckBox term;
JButton submit, reset;
JTextArea display;
```

READ AND WRITE IMPLEMENTATION

In this project, I use JTextField. JTextField is a lightweight component that allows the editing of a single line of text. JTextField inherits the abstract class JTextComponent, which is the superclass of all text components. JTextField provides a convenient way to obtain text-based user input. JTextField provides the addActionListener() and removeActionListener() method. To handle action events, we must implement the actionPerformed() method defines by the ActionListener interface. So, in this project I used JFrame, JLabel, JTextField, JRadioButton, JCheckBox and JTextArea.

```
package testregistration;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

class RegisForm implements ActionListener
{
    JFrame frame = new JFrame("Club Registration Form");
    Container con = frame.getContentPane();
    JLabel lhead, lname, lemail, lcourse, lgender, lclub;
    JTextField tname, temail, tcourse, tclub;
    JRadioButton r1, r2;
    ButtonGroup gender = new ButtonGroup();
    JCheckBox term;
    JButton submit, reset;
    JTextArea display;

    - - - - -
}
```

The coding

Club Registration Form

Registration Club Form

Name

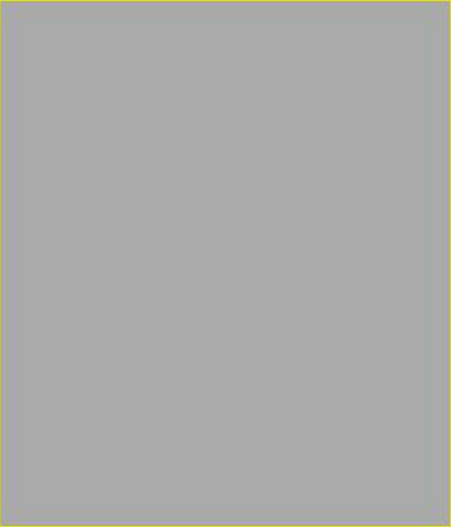
Gender ☐ Male ☐ Female

Email

Course

Club

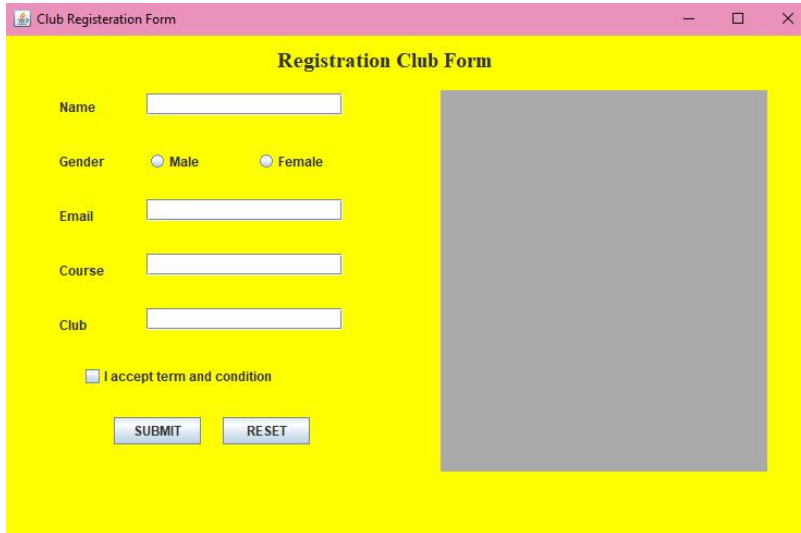
☐ I accept term and condition



The output

USER MANUAL

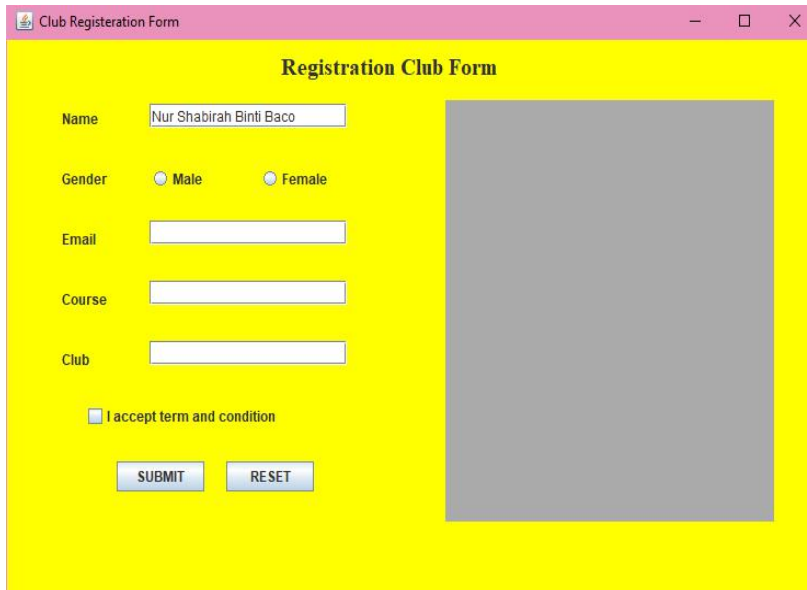
This is show how this project will be run step by step and how they will the output outcome.



The screenshot shows a window titled "Club Registration Form" with a yellow background. The form is titled "Registration Club Form". It contains the following fields and controls:

- Name: A text input field.
- Gender: Two radio buttons labeled "Male" and "Female".
- Email: A text input field.
- Course: A text input field.
- Club: A text input field.
- A checkbox labeled "I accept term and condition".
- Two buttons: "SUBMIT" and "RESET".
- A large gray rectangular area on the right side of the form.

1) The gui after run the program



The screenshot shows the same "Club Registration Form" window, but the "Name" field is now filled with the text "Nur Shabirah Binti Baco". All other fields and controls remain the same as in the previous screenshot.

2) The first box show name, so the user need to fullfill their name

Club Registration Form

Registration Club Form

Name: Nur Shabirah Binti Baco

Gender: ☐ Male ☒ Female

Email:

Course:

Club:

☐ I accept term and condition

3) need to click on the button choose their gender

Club Registration Form

Registration Club Form

Name: Nur Shabirah binti Baco

Gender: ☐ Male ☒ Female

Email: nurshabirah1904@gmail.com

Course:

Club:

☐ I accept term and condition

4) Fullfill the user email at the emial box

The screenshot shows a web browser window titled "Club Registration Form". The form has a yellow background and a pink header bar. The form fields are as follows:

- Name: Nur Shabirah binti Baco
- Gender: ☐ Male ☒ Female
- Email: nurshabirah1904@gmail.com
- Course: Network engineering
- Club: (empty)
- ☐ I accept term and condition
- SUBMIT and RESET buttons

A large gray rectangular area is visible on the right side of the form.

5) Enter the course name

The screenshot shows the same web browser window titled "Club Registration Form". The form fields are as follows:

- Name: Nur Shabirah binti Baco
- Gender: ☐ Male ☒ Female
- Email: nurshabirah1904@gmail.com
- Course: Network engineering
- Club: Volleyball
- ☐ I accept term and condition
- SUBMIT and RESET buttons

A large gray rectangular area is visible on the right side of the form.

5) Enter the club that the user choose

The screenshot shows a web browser window titled "Club Registration Form". The page has a yellow background and is titled "Registration Club Form". On the left, there is a registration form with the following fields: "Name" (filled with "Nur Shabirah binti Baco"), "Gender" (radio buttons for "Male" and "Female", with "Female" selected), "Email" (filled with "nurshabirah1904@gmail.com"), "Course" (filled with "Network engineering"), and "Club" (filled with "Volleyball"). Below these fields is a checkbox labeled "I accept term and condition" which is checked. At the bottom of the form are two buttons: "SUBMIT" and "RESET". To the right of the form is a large, empty grey rectangular box.

6) The user need to tick the term and condition before submit . At button submit or reset the user can choose, if they choose reset it means that the form will be empty

This screenshot shows the same "Club Registration Form" after the "SUBMIT" button has been clicked. The form fields and the checked "I accept term and condition" checkbox remain the same. However, the large grey box on the right now displays the user's submitted information in a list format: "Name: Nur Shabirah binti Baco", "Gender: Female", "Email: nurshabirah1904@gmail.com", "Course: Network engineering", and "Club: Volleyball".

7) After click the submit button , all the information that the user key in will be show at the grey box. Its means that all the information already accepted.

CONCLUSION

In conclusion, this is the design that I build to make the user use for their registration at the club. This can be use at the university or high school, so that the people can fulfill the form to complete their registration. This also will make the leader to see the information that someone already fulfill and make them easy to collect the data.