



UMS
UNIVERSITI MALAYSIA SABAH

KK14203 OBJECT ORIENTED PROGRAMMING

Title: ABC Kindergarten Registration Form

Prepared by:

Matric No	Name	Section
BI19110144	Jacquelin Rinya Anak Enjang	1

Prepared to: Dr.Mohd Shamrie Sainin

Object Oriented Concept Implementation

1. Object and Class

- There are 3 classes in the project. These classes interact with one another. These classes are class Kindergarten, class MyFrame and class MenuBar. The main class is Kindergarten.

2. Polymorphism

- A statement to call various methods and the exact method to be called is only known during runtime.
- Concept which performs single action in different ways.

Read and write implementation



The screenshot shows a window titled "ABC Kindergarten" with a menu bar containing "Menu". The main area is titled "ABC Kindergarten Registration Form". It contains the following fields and controls:

- Child's Name: Text input field
- Father's Name: Text input field
- Contact No: Text input field
- Mother's Name: Text input field
- Contact No: Text input field
- Gender: Radio buttons for Male (selected) and Female
- DOB: Dropdown for day (1), month (Jan), and year (20...)
- Grade: Radio buttons for 1st Grade (selected) and 2nd Grade
- Address: Text area
- Confirmation: ☐ Please confirm the registration
- Buttons: Submit and Reset

1. User interface

- User interface shows the registration form.



This screenshot is identical to the previous one, but the "Menu" dropdown is open, showing the following options:

- Menu
- Open
- Quit

2. Menu

- User can click open to load file and quit to exit the program.

ABC Kindergarten Registration Form

Child's Name:

Father's Name:

Contact No:

Mother's Name:

Contact No:

Gender: ☐ Male ☒ Female

DOB:

Grade: ☒ 1st Grade ☐ 2nd Grade

Address:

☐ Please confirm the registration

3. User's input

- User's details such as child's name, father's name, contact number, mother's name, gender, date of birth, grade and address.

ABC Kindergarten Registration Form

Child's Name:

Father's Name:

Contact No:

Mother's Name:

Contact No:

Gender: ☐ Male ☒ Female

DOB:

Grade: ☒ 1st Grade ☐ 2nd Grade

Address:

☒ Please confirm the registration
Please complete the registration

4. Popup message

- Implement I/O exception shows popup message when user did not click the checkbox.

ABC Kindergarten

Menu

ABC Kindergarten Registration Form

Child's Name	<input type="text" value="Jacquelin"/>	Child's Name : Jacquelin
Father's Name	<input type="text" value="Michael"/>	Father's Name : Michael
Contact No	<input type="text" value="01131908050"/>	Contact Number : 01131908050
Mother's Name	<input type="text" value="Rinva"/>	Mother's Name : Rinva
Contact No	<input type="text" value="0142853692"/>	Contact Number : 0142853692
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female	Gender : Female
DOB	<input type="text" value="3"/> <input type="text" value="Jan"/> <input type="text" value="20..."/>	DOB : 3/Jan/2014
Grade	<input checked="" type="radio"/> 1st Grade <input type="radio"/> 2nd Grade	
Address	<input type="text" value="Lot 234, Jalan Kelapa Condong"/>	Address : Lot 234, Jalan Kelapa Condong

☒ Please confirm the registration
Registration Successful

5. Output

- After user's click "submit" button, the output will appear at the text area.

Code

```
import javax.swing.*;

import java.awt.*;

import java.awt.event.*;

class MyFrame
    extends JFrame
    implements ActionListener {

    private Container ctnr;

    private JLabel title;

    private JLabel name;

    private JTextField tname;

    private JLabel name1;

    private JTextField tname1;

    private JLabel contact;

    private JTextField tcontact;

    private JLabel name2;

    private JTextField tname2;

    private JLabel contact1;

    private JTextField tcontact1;

    private JLabel gender;

    private JRadioButton male;

    private JRadioButton female;

    private ButtonGroup button1;

    private JLabel dob;

    private JComboBox date;

    private JComboBox month;
```

```
private JComboBox year;  
private JLabel grade;  
private JRadioButton grade1;  
private JRadioButton grade2;  
private ButtonGroup button2;  
private JLabel addr;  
private JTextArea taddr;  
private JCheckBox treg;  
private JButton sub;  
private JButton reset;  
private JTextArea tout;  
private JLabel rcnfm;  
private JTextArea resadd;
```

```
private String dates[]  
    = { "1", "2", "3", "4", "5",  
        "6", "7", "8", "9", "10",  
        "11", "12", "13", "14", "15",  
        "16", "17", "18", "19", "20",  
        "21", "22", "23", "24", "25",  
        "26", "27", "28", "29", "30",  
        "31" };  
private String months[]  
    = { "Jan", "Feb", "Mar", "Apr",  
        "May", "Jun", "July", "Aug",  
        "Sep", "Oct", "Nov", "Dec" };  
private String years[]  
    = { "2014", "2015" };
```

```
public MyFrame()
{
    setTitle("ABC Kindergarten");
    setBounds(300, 90, 830, 600);
    setDefaultCloseOperation(EXIT_ON_CLOSE);
    setResizable(false);

    class MenuBar extends JMenuBar{
    }

    JMenuBar menuBar = new JMenuBar();
    setJMenuBar(menuBar);
    JMenu file = new JMenu("Menu");
    menuBar.add(file);
    JMenuItem open = new JMenuItem("Open");
    open.addActionListener(this);
    file.add(open);
    JMenuItem quit = new JMenuItem("Quit");
    quit.addActionListener(this);
    file.add(quit);

    ctnr = getContentPane();
    ctnr.setLayout(null);

    title = new JLabel("ABC Kindergarten Registration Form");
    title.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 22));
    title.setSize(400, 30);
    title.setLocation(280, 30);
```



```
ctnr.add(title);
```

```
name = new JLabel("Child's Name");
```

```
name.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
name.setSize(190, 20);
```

```
name.setLocation(100, 100);
```

```
ctnr.add(name);
```

```
tname = new JTextField();
```

```
tname.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 17));
```

```
tname.setSize(190, 20);
```

```
tname.setLocation(230, 100);
```

```
ctnr.add(tname);
```

```
name1= new JLabel("Father's Name");
```

```
name1.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
name1.setSize(190, 20);
```

```
name1.setLocation(100, 130);
```

```
ctnr.add(name1);
```

```
tname1 = new JTextField();
```

```
tname1.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 17));
```

```
tname1.setSize(190, 20);
```

```
tname1.setLocation(230, 130);
```

```
ctnr.add(tname1);
```

```
contact = new JLabel("Contact No");
```

```
contact.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
contact.setSize(140, 20);  
contact.setLocation(100, 160);  
ctnr.add(contact);
```

```
tcontact = new JTextField();  
tcontact.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 17));  
tcontact.setSize(140, 20);  
tcontact.setLocation(230, 160);  
ctnr.add(tcontact);
```

```
name2= new JLabel("Mother's Name");  
name2.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));  
name2.setSize(190, 20);  
name2.setLocation(100, 190);  
ctnr.add(name2);
```

```
tname2 = new JTextField();  
tname2.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 17));  
tname2.setSize(190, 20);  
tname2.setLocation(230, 190);  
ctnr.add(tname2);
```

```
contact1 = new JLabel("Contact No");  
contact1.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));  
contact1.setSize(140, 20);  
contact1.setLocation(100, 220);  
ctnr.add(contact1);
```

```
tcontact1 = new JTextField();  
tcontact1.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 17));  
tcontact1.setSize(140, 20);  
tcontact1.setLocation(230, 220);  
ctnr.add(tcontact1);
```

```
gender = new JLabel("Gender");  
gender.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));  
gender.setSize(100, 20);  
gender.setLocation(100, 250);  
ctnr.add(gender);
```

```
male = new JRadioButton("Male");  
male.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 18));  
male.setSelected(true);  
male.setSize(75, 20);  
male.setLocation(230, 250);  
ctnr.add(male);
```

```
female = new JRadioButton("Female");  
female.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 18));  
female.setSelected(false);  
female.setSize(85, 20);  
female.setLocation(330, 250);  
ctnr.add(female);
```

```
button1 = new ButtonGroup();  
button1.add(male);
```

```
button1.add(female);
```

```
dob = new JLabel("DOB");
```

```
dob.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
dob.setSize(100, 20);
```

```
dob.setLocation(100, 280);
```

```
ctnr.add(dob);
```

```
date = new JComboBox(dates);
```

```
date.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
date.setSize(50, 20);
```

```
date.setLocation(230, 280);
```

```
ctnr.add(date);
```

```
month = new JComboBox(months);
```

```
month.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
month.setSize(60, 20);
```

```
month.setLocation(280, 280);
```

```
ctnr.add(month);
```

```
year = new JComboBox(years);
```

```
year.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
year.setSize(60, 20);
```

```
year.setLocation(340, 280);
```

```
ctnr.add(year);
```

```
grade = new JLabel("Grade");
```

```
grade.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));
```

```
grade.setSize(100, 20);  
grade.setLocation(100, 310);  
ctnr.add(grade);
```

```
grade1 = new JRadioButton("1st Grade");  
grade1.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 18));  
grade1.setSelected(true);  
grade1.setSize(100, 20);  
grade1.setLocation(230, 310);  
ctnr.add(grade1);
```

```
grade2 = new JRadioButton("2nd Grade");  
grade2.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 18));  
grade2.setSelected(false);  
grade2.setSize(110, 20);  
grade2.setLocation(330, 310);  
ctnr.add(grade2);
```

```
button2 = new ButtonGroup();  
button2.add(grade1);  
button2.add(grade2);
```

```
addrr = new JLabel("Address");  
addrr.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));  
addrr.setSize(100, 20);  
addrr.setLocation(100, 340);  
ctnr.add(addrr);
```

```
taddr = new JTextArea();  
taddr.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 17));  
taddr.setSize(200, 75);  
taddr.setLocation(230, 340);  
taddr.setLineWrap(true);  
ctnr.add(taddr);
```

```
treg = new JCheckBox("Please confirm the registration");  
treg.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 16));  
treg.setSize(250, 20);  
treg.setLocation(230, 430);  
ctnr.add(treg);
```

```
sub = new JButton("Submit");  
sub.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));  
sub.setSize(100, 20);  
sub.setLocation(230, 480);  
sub.addActionListener(this);  
ctnr.add(sub);
```

```
reset = new JButton("Reset");  
reset.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 19));  
reset.setSize(100, 20);  
reset.setLocation(320, 480);  
reset.addActionListener(this);  
ctnr.add(reset);
```

```
tout = new JTextArea();
```

```

tout.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 15));

tout.setSize(300, 400);

tout.setLocation(500, 100);

tout.setLineWrap(true);

tout.setEditable(false);

ctnr.add(tout);


rcnfm = new JLabel("");

rcnfm.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 15));

rcnfm.setSize(500, 25);

rcnfm.setLocation(230, 450);

ctnr.add(rcnfm);


resadd = new JTextArea();

resadd.setFont(new Font("TIMES NEW ROMAN", Font.PLAIN, 15));

resadd.setSize(200, 75);

resadd.setLocation(580, 175);

resadd.setLineWrap(true);

ctnr.add(resadd);


setVisible(true);
}


public void actionPerformed(ActionEvent e)
{
    if (e.getSource() == sub) {
        if (treg.isSelected()) {
            String data1;

```

String data

```
= "Child's Name : "  
+ tname.getText() + "\n"  
+ "Father's Name : "  
+ tname1.getText() + "\n" + "Contact Number : "  
+ tcontact.getText() + "\n" + "Mother's Name : "  
+ tname2.getText() + "\n" + "Contact Number : "  
+ tcontact1.getText() + "\n";
```

if (male.isSelected())

```
data1 = "Gender : Male"  
+ "\n";
```

else

```
data1 = "Gender : Female"  
+ "\n";
```

String data2

```
= "DOB : "  
+ (String)date.getSelectedItemAt()  
+ "/" + (String)month.getSelectedItemAt()  
+ "/" + (String)year.getSelectedItemAt()  
+ "\n";
```

String data3 = "Address : " + taddr.getText();

tout.setText(data + data1 + data2 + data3);

tout.setEditable(false);

rcnfm.setText("Registration Successful");

}

else {

tout.setText("");


```

        resadd.setText("");
        rcnfm.setText("Please complete"
            + " the registration");
    }
    if (e.getSource() == reset) {
        String def = "";
        tname.setText(def);
        taddr.setText(def);
        tname1.setText(def);
        rcnfm.setText(def);
        tout.setText(def);
        treg.setSelected(false);
        date.setSelectedIndex(0);
        month.setSelectedIndex(0);
        year.setSelectedIndex(0);
        resadd.setText(def);
    }
    String choice = e.getActionCommand();
    if (choice.equals("Open")) {;
}
    else if (choice.equals("Quit")) {
        JOptionPane.showMessageDialog(this,"Sure to Quit?");
        System.exit(0);
    }
}
}

```