

## Student Lab Activity Report

Course Code:	223 CSM-3
Course Name:	Advanced Object-Oriented Programming
Section Number:	6465
Deadline	31 / 3 / 2021
Student ID:	441814250
Student Name:	Omar Adel Badawy Ali

### Activity 6: Student Info (GUI-2)

- Write a Java program that creates “student info” as shown in the following interface.

Student Info

ID No. : 1004

First Name : Khalid

Last Name : Alasiri

Age : 20

Gender : ☒ Male ☐ Female

Course : ☒ OOP ☒ Data Structure ☐ Operating System

Department : CS

New Save Cancel

1004 Khalid Alasiri 20 Male  
OOP-Data Structure CS

When **New** JButton is clicked all the data from the components must be cleared.

When **Save** JButton is clicked all the data of the components must be displayed on the empty JTextArea in a proper format.

When **Cancel** JButton is clicked program should be exited (uses `System.exit(0);`)

**NOTE:** Use a combination of layouts to get the desired outputs (BorderLayout, GridLayout, and FlowLayout).

<b>Points out of 10</b>	
<b>Date</b>	<b>23 / 3 / 2021</b>
<b>Instructor</b>	<b>Khalid Alasiri</b>

**Your Answer:**

**Program When opening**

The screenshot shows a Windows application window titled "checkbox". The window contains a form with the following elements:

- ID no. :** A text input field.
- First Name :** A text input field.
- Last Name :** A text input field.
- Age :** A text input field.
- Gender :** Radio buttons for "Male" (selected) and "Female".
- Course :** A section containing three checkboxes: "OOP", "Date Structure", and "Operating System".
- Department :** A dropdown menu currently showing "CS".
- Buttons:** "New", "Save", and "Cancel" buttons are located at the bottom left of the form.

## When filling textfields and selecting the checkbox and choosing from combobox

The screenshot shows a form titled "checkbox" with the following fields and values:

- ID no.: 441814250
- First Name: Omar
- Last Name: Adel
- Age: 22
- Gender: ☒ Male ☐ Female
- Course: ☒ OOP ☐ Date Structure ☒ Operating System
- Department: IT (selected from a dropdown menu)

Buttons: New, Save, Cancel

## When you clicked Save button

The screenshot shows the same form titled "checkbox" after clicking the "Save" button. The form fields are now empty, and the data is displayed in a table below the form.

Buttons: New, Save, Cancel

ID no.	First Name	Last Name	Age	Gender	Course	Department
441814250	Omar	Adel	22	Male	OOP	Operating System

Department :							
IT							
441814250	Omar	Adel	22	Male	OOP	Operating System	IT

## When you clicked new button

ID no. :

First Name :

Last Name :

Age :

Gender :  
☒ Male  
☐ Female

Course :  
☐ OOP  
☐ Data Structure  
☐ Operating System

Department :

CS

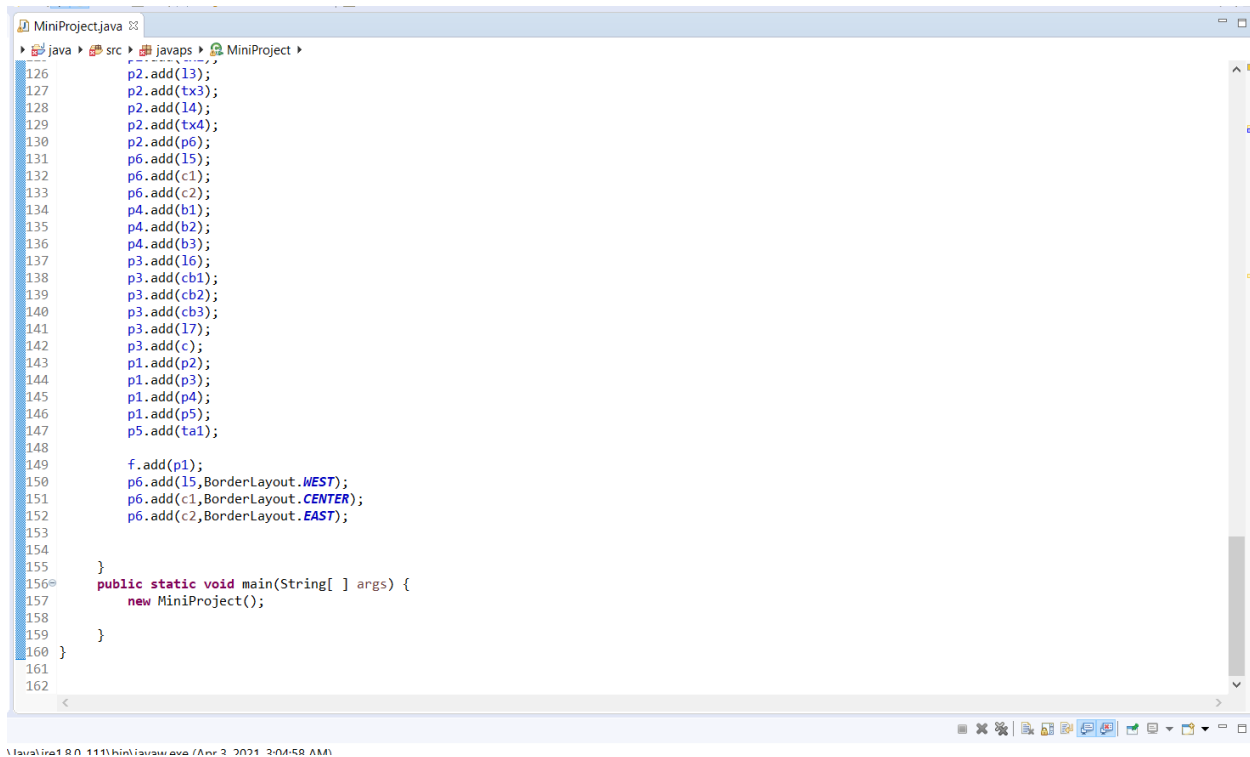
NewSaveCancel

## Code photos

```
MiniProject.java
1 package javaps;
2
3 import javax.swing.*;
4
5
6
7
8 class MiniProject {
9     private JFrame f;
10    private JPanel p1, p2, p3, p4, p5, p6;
11    private JLabel l1, l2, l3, l4, l5, l6, l7;
12    private TextField tx1, tx2, tx3, tx4;
13    private CheckboxGroup cg;
14    private JButton b1, b2, b3;
15    private Checkbox cb1, cb2, cb3;
16    private JComboBox c;
17    private JTextArea ta1;
18
19
20    MiniProject(){
21        f = new JFrame( );
22        f.setVisible(true);
23        f.setSize(500,500);
24        f.setTitle("checkbox");
25        f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
26
27        p1=new JPanel(new GridLayout(2,2) );
28        p2=new JPanel(new GridLayout(5,2) );
29        p3=new JPanel(new GridLayout(6,1) );
30        p4=new JPanel( );
31        p5=new JPanel();
32        p6=new JPanel(new GridLayout(1,3) );
33
34        l1=new JLabel(" ID no. : ");
35        l2=new JLabel(" First Name : ");
36        l3=new JLabel(" Last Name : ");
37        l4=new JLabel(" Age : ");
38        l5=new JLabel(" Gender : ");
39        l6=new JLabel(" Course : ");
40
41        tx1 = new TextField(5);
42        tx2 = new TextField(5);
43        tx3 = new TextField(5);
44        tx4 = new TextField(5);
45        cg = new CheckboxGroup( );
46        Checkbox c1 = new Checkbox("Male",cg,true);
47        Checkbox c2 = new Checkbox("Female",cg,false);
48        b1 = new JButton( "New" );
49        b2 = new JButton( "Save" );
50        b3 = new JButton( "Cancel" );
51        cb1 = new Checkbox("OOP");
52        cb2 = new Checkbox("Data Structure");
53        cb3 = new Checkbox("Operating System");
54        String[] items={"CS","IS","IT","CE"};
55        c = new JComboBox (items);
56        ta1 = new JTextArea(20,85);
57        b1.addActionListener(new ActionListener(){
58            public void actionPerformed(ActionEvent e)
59            {
60                tx1.getSelectedText().toString();
61                tx1.setText("");
62                tx2.getSelectedText().toString();
63                tx2.setText("");
64                tx3.getSelectedText().toString();
65                tx3.setText("");
66                tx4.getSelectedText().toString();
67                tx4.setText("");
68                cb1.setState(false);
69                cb2.setState(false);
70                cb3.setState(false);
71                c1.setState(true);
72
73                c.setSelectedItem("CS");
74                ta1.setText("");
75            }
76        });
77    }
78}
```

```
MiniProject.java
java > src > javaps > MiniProject
78    });
79    b2.addActionListener(new ActionListener(){
80    public void actionPerformed(ActionEvent e)
81    {
82        String n = tx1.getText().toString();
83        String s = tx2.getText().toString();
84
85        String m = tx3.getText().toString();
86        String l = tx4.getText().toString();
87
88        ta1.append("n+ " + n+ " " +s+ " " +m+ " " +l+ " ");
89
90        ta1.append(cb1.getSelectedCheckbox().getLabel().toString()+ "\t");
91
92
93        if(cb1.getState())
94        {
95            ta1.append(cb1.getLabel().toString() + "\t");
96        }
97
98        if(cb2.getState())
99        {
100            ta1.append(cb2.getLabel().toString() + "\t");
101        }
102
103
104        if(cb3.getState())
105        {
106            ta1.append(cb3.getLabel().toString() + "\t");
107        }
108
109
110        ta1.append(c.getSelectedItem().toString());
111    }
112    });
113
114
```

```
MiniProject.java
java > src > javaps > MiniProject
109    }
110
111    ta1.append(c.getSelectedItem().toString());
112
113    }
114    });
115
116
117    b3.addActionListener(new ActionListener(){
118    public void actionPerformed(ActionEvent e)
119    {System.exit(0); }
120    });
121
122    p2.add(l1);
123    p2.add(tx1);
124    p2.add(l2);
125    p2.add(tx2);
126    p2.add(l3);
127    p2.add(tx3);
128    p2.add(l4);
129    p2.add(tx4);
130    p2.add(p6);
131    p6.add(l5);
132    p6.add(c1);
133    p6.add(c2);
134    p4.add(b1);
135    p4.add(b2);
136    p4.add(b3);
137    p3.add(l6);
138    p3.add(cb1);
139    p3.add(cb2);
140    p3.add(cb3);
141    p3.add(l7);
142    p3.add(c);
143    p1.add(p2);
144    p1.add(p3);
145    p1.add(p4);
```



```
126     p2.add(l3);
127     p2.add(tx3);
128     p2.add(l4);
129     p2.add(tx4);
130     p2.add(p6);
131     p6.add(l5);
132     p6.add(c1);
133     p6.add(c2);
134     p4.add(b1);
135     p4.add(b2);
136     p4.add(b3);
137     p3.add(l6);
138     p3.add(cb1);
139     p3.add(cb2);
140     p3.add(cb3);
141     p3.add(l7);
142     p3.add(c);
143     p1.add(p2);
144     p1.add(p3);
145     p1.add(p4);
146     p1.add(p5);
147     p5.add(ta1);
148
149     f.add(p1);
150     p6.add(l5, BorderLayout.WEST);
151     p6.add(c1, BorderLayout.CENTER);
152     p6.add(c2, BorderLayout.EAST);
153
154 }
155
156 public static void main(String[] args) {
157     new MiniProject();
158 }
159 }
160 }
161
162 }
```

## The code

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

```
class MiniProject {
    private JFrame f;
    private JPanel p1 , p2 ,p3, p4,p5,p6;
    private JLabel l1 , l2 , l3 , l4 , l5 , l6 , l7 ;
    private TextField tx1 , tx2 , tx3, tx4 ;
    private CheckboxGroup cg;
    private JButton b1 , b2 , b3 ;
    private Checkbox cb1 , cb2 , cb3 ;
```

```
private JComboBox c;  
private JTextArea ta1 ;
```

```
MiniProject(){  
    f = new JFrame( );  
    f.setVisible(true);  
    f.setSize(500,500);  
    f.setTitle("checkbox");  
    f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
  
    p1 =new JPanel(new GridLayout(2,2) );  
    p2 =new JPanel(new GridLayout(5,2) );  
    p3 =new JPanel(new GridLayout(6,1) );  
    p4 =new JPanel( );  
    p5 =new JPanel();  
    p6 =new JPanel(new GridLayout(1,3) );  
  
    l1=new JLabel(" ID no. : ");  
    l2=new JLabel(" First Name : ");  
    l3=new JLabel(" Last Name : ");  
    l4=new JLabel(" Age : ");  
    l5=new JLabel(" Gender : ");  
    l6=new JLabel(" Course : ");  
    l7=new JLabel(" Department : ");  
    tx1 = new TextField(5);  
    tx2 = new TextField(5);  
    tx3 = new TextField(5);  
    tx4 = new TextField(5);  
    cg = new CheckboxGroup( );  
    Checkbox c1 = new Checkbox("Male",cg,true);  
    Checkbox c2 = new Checkbox("Female",cg,false);  
    b1 = new JButton( "New");  
    b2 = new JButton("Save" );  
    b3 = new JButton( "Cancel");
```



```

cb1 = new Checkbox("OOP");
cb2 = new Checkbox("Date Structure");
cb3 = new Checkbox("Operating System");
String[] items={"CS","IS","IT","CE"};
c = new JComboBox (items);
ta1 = new JTextArea(20,85);
b1.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent e)
    {
        tx1.getSelectedText().toString();
        tx1.setText("");
        tx2.getSelectedText().toString();
        tx2.setText("");
        tx3.getSelectedText().toString();
        tx3.setText("");
        tx4.getSelectedText().toString();
        tx4.setText("");
        cb1.setState(false);
        cb2.setState(false);
        cb3.setState(false);
        c1.setState(true);
    }
});

```

```

c.setSelectedItem("CS");
ta1.setText("");

    }
});
b2.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent e)

    {
        String n = tx1.getText().toString();
        String s = tx2.getText().toString();
    }
});

```

```
String m = tx3.getText().toString();
String l = tx4.getText().toString();
```

```
ta1.append("" + n+ " " +s+ " " +m+ " " +l+ " ");
```

```
ta1.append(cg.getSelectedCheckbox().getLabel().toString()+ "\t");
```

```
        if(cb1.getState())
        {
            ta1.append(cb1.getLabel().toString() +
"\t");
        }
```

```
        if(cb2.getState())
        {
            ta1.append(cb2.getLabel().toString() +
"\t");
        }
```

```
        if(cb3.getState())
        {
            ta1.append(cb3.getLabel().toString() +
"\t");
        }
```

```
ta1.append(c.getSelectedItemAt().toString());
```

```
    }
});
```

```
b3.addActionListener(new ActionListener(){  
    public void actionPerformed(ActionEvent e)  
    {System.exit(0); }  
});
```

```
p2.add(l1);  
p2.add(tx1);  
p2.add(l2);  
p2.add(tx2);  
p2.add(l3);  
p2.add(tx3);  
p2.add(l4);  
p2.add(tx4);  
p2.add(p6);  
p6.add(l5);  
p6.add(c1);  
p6.add(c2);  
p4.add(b1);  
p4.add(b2);  
p4.add(b3);  
p3.add(l6);  
p3.add(cb1);  
p3.add(cb2);  
p3.add(cb3);  
p3.add(l7);  
p3.add(c);  
p1.add(p2);  
p1.add(p3);  
p1.add(p4);  
p1.add(p5);  
p5.add(ta1);
```

```
f.add(p1);  
p6.add(l5, BorderLayout.WEST);  
p6.add(c1, BorderLayout.CENTER);
```

```
p6.add(c2, BorderLayout.EAST);
```

```
}
```

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

```
}
```

```
}
```