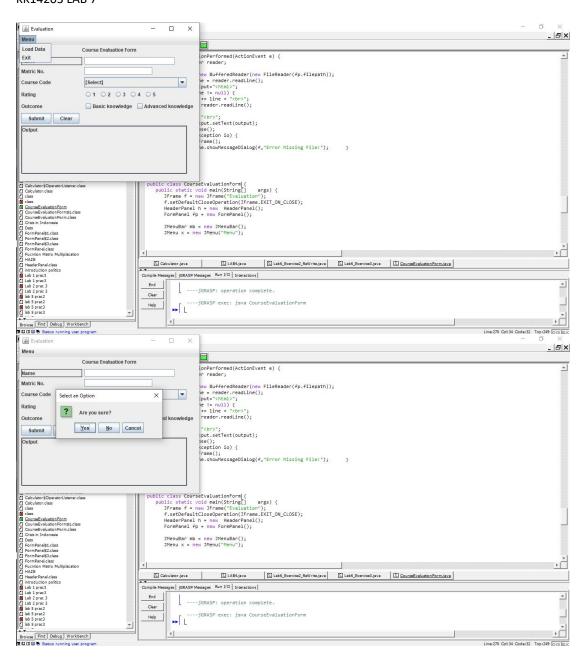
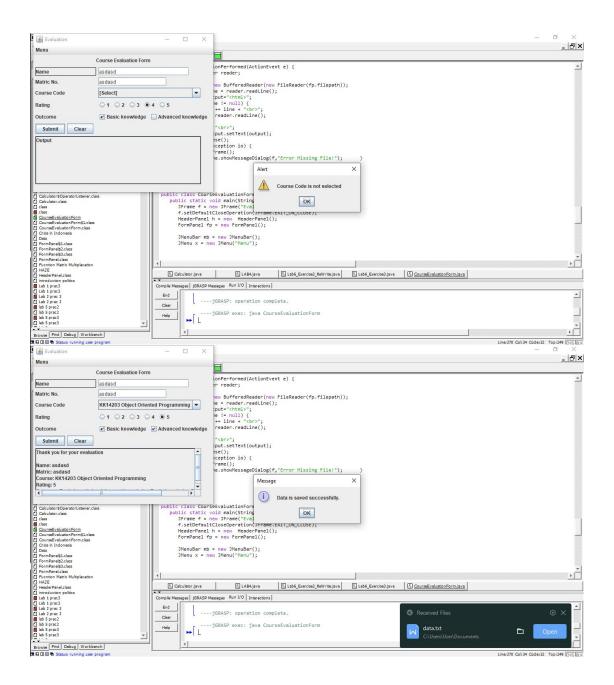
KK14203 LAB 7





```
SOURCE CODE (JAVA)
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.event.*;
import javax.swing.BorderFactory;
import javax.swing.border.Border;
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.PrintWriter;
import java.io.BufferedWriter;
import java.io.BufferedReader;
import java.io.IOException;
class HeaderPanel extends JPanel{
   private JLabel header;
   public HeaderPanel(){
       header = new JLabel("Course Evaluation Form");
       add(header);
   }
}
class FormPanel extends JPanel implements ActionListener, ItemListener{
   JFrame f;
   JLabel lbl_name;
   JTextField name;
   JLabel lbl_matric;
   JTextField matric;
   JLabel lbl code;
   JComboBox<String> code;
   JLabel lbl_rating;
   JLabel lbl outcome;
   JButton b_submit;
   JButton b_clear;
   JCheckBox c1;
   JCheckBox c2;
   JLabel lbl output;
   JScrollPane jsp;
   Border border = BorderFactory.createLineBorder(Color.BLACK, 1);
   String output="";
   String code_selection="";
   String rb_selection="";
   String cb_selection="";
   String filepath="data.txt";
   String test_IO ="";
   public FormPanel(){
       setLayout(new FlowLayout(FlowLayout.LEFT));
       lbl_name = new JLabel("Name");
       lbl_name.setPreferredSize(new Dimension(150, 20));
       lbl_name.setBorder(border);
```

```
add(lbl name);
name = new JTextField(20);
add(name);
lbl matric = new JLabel("Matric No.");
lbl_matric.setPreferredSize(new Dimension(150, 20));
add(lbl matric);
matric = new JTextField(15);
add(matric);
String[] courses={"[Select]", "KK14203 Object Oriented Programming", "KT14403 Discrete"};
lbl_code = new JLabel("Course Code");
lbl code.setPreferredSize(new Dimension(150, 20));
add(lbl code);
code = new JComboBox<String>(courses);
add(code);
code.addActionListener(
   new ActionListener(){
      public void actionPerformed(ActionEvent ae){
          code_selection = (String) code.getSelectedItem();
   });
lbl_rating = new JLabel("Rating");
lbl_rating.setPreferredSize(new Dimension(150, 20));
add(lbl_rating);
JRadioButton rb1 = new JRadioButton("1");
rb1.addActionListener(this);
JRadioButton rb2 = new JRadioButton("2");
rb2.addActionListener(this);
JRadioButton rb3 = new JRadioButton("3");
rb3.addActionListener(this);
JRadioButton rb4 = new JRadioButton("4");
rb4.addActionListener(this);
JRadioButton rb5 = new JRadioButton("5");
rb5.addActionListener(this);
add(rb1);
add(rb2);
add(rb3);
add(rb4);
add(rb5);
ButtonGroup btn_group = new ButtonGroup();
btn_group.add(rb1);
btn_group.add(rb2);
btn_group.add(rb3);
btn group.add(rb4);
btn_group.add(rb5);
lbl outcome = new JLabel("Outcome");
lbl_outcome.setPreferredSize(new Dimension(150, 20));
add(lbl_outcome);
c1 = new JCheckBox("Basic knowledge");
```

```
c1.addItemListener(this);
       c2 = new JCheckBox("Advanced knowledge");
       c2.addItemListener(this);
       add(c1);
       add(c2);
       b submit = new JButton("Submit");
       add(b submit);
       b_clear = new JButton("Clear");
       add(b_clear);
       b_submit.addActionListener(
          new ActionListener(){
              public void actionPerformed(ActionEvent e){
                 f = new JFrame();
                 if(name.getText().equals("")){
                     JOptionPane.showMessageDialog(f,"Name field is
empty","Alert", JOptionPane. WARNING MESSAGE);
                 else if(matric.getText().equals("")){
                     JOptionPane.showMessageDialog(f,"Matric Number is
empty","Alert",JOptionPane.WARNING_MESSAGE);
                 else if(checkEmptyString(code_selection) || code_selection.equals("[Select]")){
                     JOptionPane.showMessageDialog(null,"Course Code is not
selected","Alert",JOptionPane.WARNING_MESSAGE);}
                 else if(checkEmptyString(rb_selection)){
                     JOptionPane.showMessageDialog(null,"Rating is not
selected","Alert",JOptionPane.WARNING MESSAGE);}
                 else if(checkEmptyString(cb_selection)){
                     JOptionPane.showMessageDialog(null,"Course Outcome is not
selected","Alert",JOptionPane.WARNING_MESSAGE);}
                 else{
                     if(printOutput()){
                        writeInput();
                        f = new JFrame();
                        JOptionPane.showMessageDialog(f,"Data is saved successfully.");//Show
message if data is saved to text
                     }
                     else{
                        f = new JFrame();
                        JOptionPane.showMessageDialog(f,"Data saved
unsuccessful", "Alert", JOption Pane. WARNING_MESSAGE); }//Show message if data is not save in
              }
          });
       b clear.addActionListener(
          new ActionListener(){
              public void actionPerformed(ActionEvent e){
                 lbl_output.setText("Output");
                 name.setText("");
```

```
matric.setText("");
                  code.setSelectedIndex(0);
                  btn_group.clearSelection();
                  c1.setSelected(false);
                  c2.setSelected(false);
           });
       lbl_output = new JLabel("Output");
       lbl_output.setBorder(border);
       lbl_output.setVerticalAlignment(JLabel.TOP);
       jsp = new JScrollPane(lbl_output);
       jsp.setPreferredSize(new Dimension(410,120));
       add(jsp);
   }
   public void actionPerformed(ActionEvent ae) {
       rb_selection = ae.getActionCommand();
   }
   public void itemStateChanged(ItemEvent ie) {
       JCheckBox check = (JCheckBox)ie.getSource();
       cb_selection += check.getText() + " ";
   }
   public boolean printOutput(){
       output = "<html>";
       output += "Thank you for your evaluation<br><br>";
       output += "Name: " + name.getText() + "<br>";
       output += "Matric: " + matric.getText() + "<br>";
       if(code selection.equals("[Select]") || code selection.equals("")){
           lbl_output.setText("Course code is not selected.");
           return false;
       output += "Course: " + code_selection + "<br>";
       output += "Rating: " + rb_selection + "<br>";
       output += "Outcome: " + cb_selection + "<br>";
       output += "</html>";
       lbl_output.setText(output);
       jsp.getViewport().revalidate();
       return true;
   }
   public void writeInput(){
       File file = new File(filepath);
       FileWriter fr = null;
       BufferedWriter br = null;
       PrintWriter pr = null;
       String input = name.getText() + ", " + matric.getText() + ", " + code_selection + ", " +
rb_selection + ", " + cb_selection;
       try {
           fr = new FileWriter(file, true);
           br = new BufferedWriter(fr);
           pr = new PrintWriter(br);
```

```
pr.println(input);
       } catch (IOException e) {
           f = new JFrame();
           JOptionPane.showMessageDialog(f,"Error Missing File!");
       } finally {
           try {
               pr.close();
              br.close();
              fr.close();
           } catch (IOException e) {
              lbl_output.setText(e.toString());
       }
   }
   public boolean checkEmptyString(String str) {
       if(str != null && !str.isEmpty())
           return false;
       return true;
   }
}
class MenuActionListener implements ActionListener {
   FormPanel fp;
   Frame f;
   public MenuActionListener(FormPanel p){
       fp = p;
   public void actionPerformed(ActionEvent e) {
       BufferedReader reader;
       try {
           reader = new BufferedReader(new FileReader(fp.filepath));
           String line = reader.readLine();
           String output="<html>";
           while (line != null) {
              output += line + "<br>";
              line = reader.readLine();
           }
           output += "<br>";
           fp.lbl_output.setText(output);
           reader.close();
       } catch (IOException io) {
           f = new JFrame();
           JOptionPane.showMessageDialog(f,"Error Missing File!");
   }
}
public class CourseEvaluationForm {
   public static void main(String[]
                                       args) {
       JFrame f = new JFrame("Evaluation");
       f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
       HeaderPanel h = new HeaderPanel();
       FormPanel fp = new FormPanel();
```

```
JMenuBar mb = new JMenuBar();
      JMenu x = new JMenu("Menu");
      JMenuItem m1 = new JMenuItem("Load Data");
      m1.addActionListener(new MenuActionListener(fp));
      JMenuItem m2 = new JMenuItem("Exit");
      m2.addActionListener(
          new ActionListener(){
             public void actionPerformed(ActionEvent e){
                 int a=JOptionPane.showConfirmDialog(f,"Are you sure?");
                 if(a==JOptionPane.YES_OPTION){
                    System.exit(0);}});
      x.add(m1);
      x.add(m2);
      mb.add(x);
      f.setJMenuBar(mb);
      f.add(h,BorderLayout.NORTH);
      f.add(fp, BorderLayout.CENTER);
      f.setSize(460,400);
      f.setVisible(true);
}
```