

Lab 16

Create a new Eclipse project named **YourStudentId_Lab16**.

Please follow the instructions to create an evaluation form and it should look like figure 1:

Figure 1 shows a Java Swing window titled "Evaluation Form". The window contains several components: a "Class" group box with two radio buttons labeled "Mon56" and "Tue23"; a "Team Info." group box containing two text input fields labeled "My Stu. ID" and "Teammate's Stu. ID"; a large empty text area; a "Score" label, a text field containing "0", a spinner button, and a "Feedback" label; and a "Submit" button at the bottom center.

Figure 1 Assignment 2 evaluation form

In this lab, you only need to implement the GUI. Listener and others will be implemented in lab 7.

Figure 2 gives you some hints about the layout arrangement.

Figure 2 illustrates the layout arrangement of the GUI. The window is titled "Evaluation Form". A red rectangle highlights the main content area, labeled "mainPanel (CENTER)". A dark blue rectangle highlights the bottom area containing the "Submit" button, labeled "submitPanel (SOUTH)".

Figure 2 Layout

The following tables are the simplified description of each class you need to implement.

EvaluationView
<code>void main(String[] args)</code>

EvaluationFrame (extends from JFrame)
Constant variables
<code>int FRAME_WIDTH = 550</code> <code>int FRAME_HEIGHT = 280</code> <code>int FIELD_WIDTH = 10</code> <code>int AREA_WIDTH = 20</code> <code>int AREA_HEIGHT = 5</code>
Instance variables
<code>JRadioButton mon56Btn</code> <code>JRadioButton tue23Btn</code> <code>JLabel myIDLabel</code> <code>JLabel mateIDLabel</code> <code>JLabel scoreLabel</code> <code>JLabel feedbackLabel</code> <code>JTextField myIDTextField</code> <code>JTextField mateIDTextField</code> <code>JComboBox<String> scoreCombo</code> <code>JTextArea feedbackTextArea</code> <code>JButton submitBtn</code>
Instance methods
<code>JPanel createClass ()</code> <code>JPanel createTeam ()</code> <code>JPanel createEvaluation ()</code> <code>void createSubmitBtn()</code> <code>void createPanel()</code>

Suggestions:

- As you can see in figure 1, you can decompose the GUI into 4 parts: Class, Team Info., Evaluation, and submit button. So you can do this lab step by steps, that is, when you finish one part, add the corresponding component to `createPanel()`, for example, you implemented “`JPanel createClass()`”, and use it in `createPanel()`, then run the program.
- Note that the description of “`add(Component)`” in both `JPanel` and `JFrame` is “Adds the specified component **to the end of this container**.”, which means the sequence of the component added to the container would be the sequence of component displayed in the container.

Instructions:

In `EvaluationFrame`:

- Implement “`JPanel createClass()`”
 - Instantiate two button(`mon56Btn` and `tue23Btn`), and one `ButtonGroup`.
 - Add the two button to `ButtonGroup`.
 - Instantiates a `JPanel`, then add the two button to this panel.
 - Configure the border of the panel.
 - Return the panel.
- Implement “`JPanel createTeam()`”

- A. Instantiate two JLabel(myIDLabel and mateIDLabel), and two JTextField(myIDTextField and mateIDTextField) with columns "FIELD_WIDTH".
 - B. Instantiate a JPanel and set a grid layout by 2x2, then add components in step 2.A.
 - C. Configure the border of the panel.
 - D. Return the panel.
 3. Implement "JPanel createEvaluation()"
 - A. Instantiate two JLabel(scoreLabel and feedbackLabel), a JComboBox(scoreCombo) , and a JTextArea (feedbackTextArea) with rows "AREA_HEIGHT", and columns "AREA_WIDTH".
 - B. Add items, 0~5, which means the score, to scoreCombo.
 - C. Instantiates a JPanel, then add components in step 3.A.
 - D. Return the panel.
 4. Implement "void createSubmitBtn()"
 - A. Instantiate a button.
 5. Implement "void createPanel()"
 - A. See the figure 2, instantiate panels you need.
 - B. Add the corresponding component to the panel and frame, and set layout if it needs.
 6. Implement the constructor
 - A. You have defined at least 4 methods, please use one of them in the constructor.
 - B. Configure the frame size with given width and height.
- In EvaluationView:
1. Implement the main method.
 2. Write codes that display the "Evaluation Form" (as figure 1).

Submission: Submit your project as "zip (or rar) file" via WM5. No other submissions will be graded.

Reminder: Please zip **the whole project**.

Deadline: Tomorrow's midnight (for both Mon56 and Tue23)