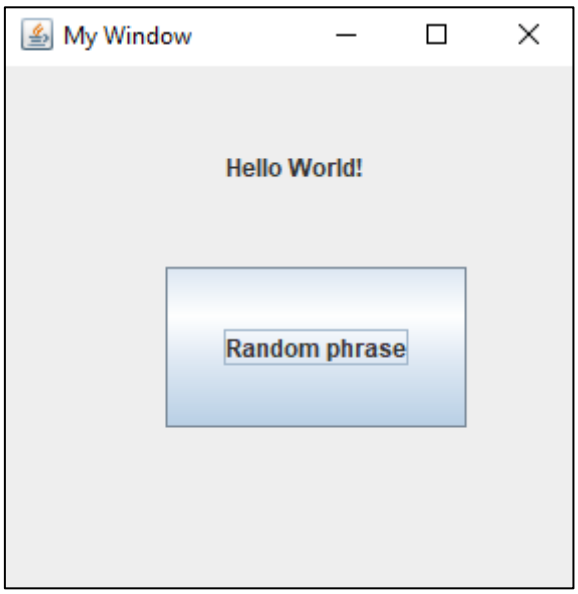
COMP503/ENSE502/ENSE602: Week 10 – Exercises

➢ **Exercise 1: Random Phrase Display**

Construct a GUI with a single button that displays a randomly selected phrase when pushed.

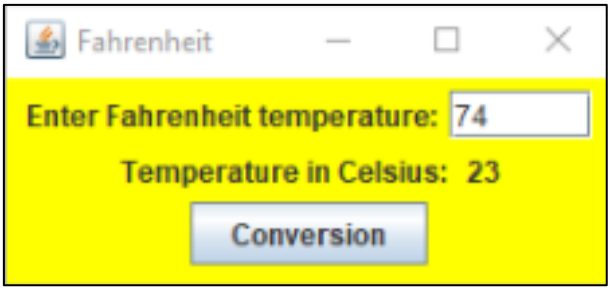
Some notes:

1. Phrases are stored in an array (put at least 5 phrase in array)
2. Each time the button is pushed, randomly select a phrase
3. Update the JLabel using setText



➢ **Exercise 2: Fahrenheit program**

Modify the "Fahrenheit" program, in your lecture slides, so that it displays a button that, when pressed, causes the conversion calculation to take place. That is your modification will give the user the option of pressing Enter in the text field or pressing the button. Have the listener that is already defined for the text field also listen for the button pushed.



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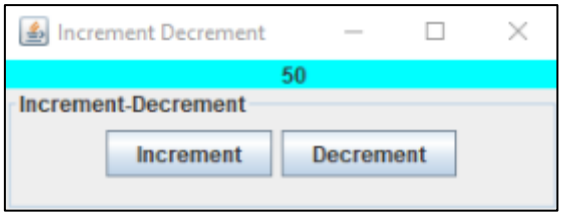
- **Exercise 3: Increment and Decrement buttons**
  a) Design and implement an application that presents two buttons and a label to the user. Label the buttons "Increment" and "Decrement", respectively. Display a numeric value (initially 50) using the label. Each time the Increment button is pushed, increment the value displayed. Likewise, each time the Decrement button is pushed, decrement the value displayed. Create two separate listener classes for the two buttons.
  b) Modify your solution in part 'a' so that it uses only one listener for both buttons.



- **Exercise 4: StyleOption program**
  a) Modify the "StyleOption" program, in your lecture slides, to allow the user to specify the font name and size. Use combo boxes to obtain the font name and size (at least add four font name and 10 sizes).

  b) Modify your solution in part 'a' such that it uses a slider to obtain the font size.

➢ **Exercise 5: Calculating basic statistics for a segment of text.**

Develop a simple tool for calculating basic statistics for a segment of text. The application should have a single window with a textField and a stats box. The stats box should be a panel with a titled border, containing labelled fields that display the number of words in the text box and the average word length (as well as any other statistics that you would like to add). The stats box should also contain a button that, when pressed, re-computes the statistics for the current contents of the text field.