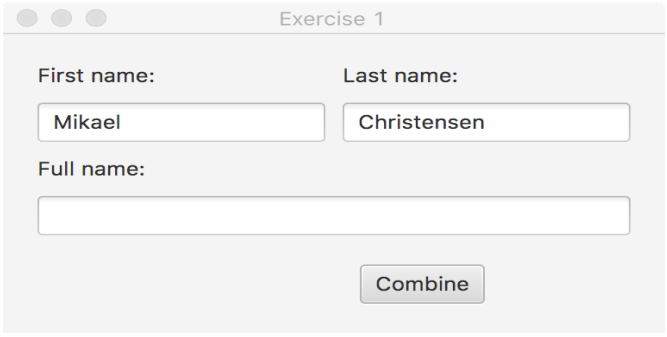
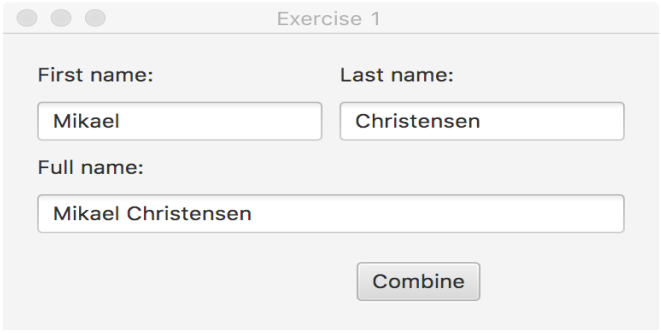
Fredag d. 31. marts 2023

Exercise 1

Make an application with the GUI below here:

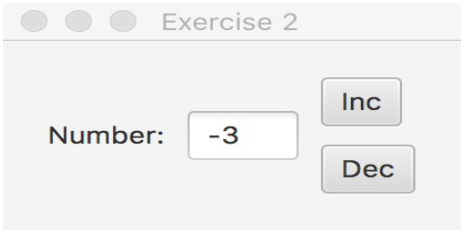


When the user clicks the button, the lower TextField must contain the combination of the two strings in the upper two TextFields. In the shown examples, the result is



Exercise 2

Make an application with the GUI:



The application shows an int value in the TextField. The buttons must increment and decrement the value of the variable.

Hint: The method Integer.parseInt(s) takes a String s as parameter and returns an int.

Exercise 3

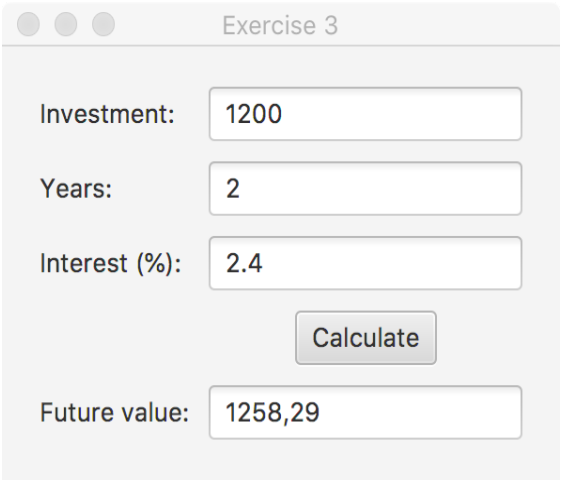
Write a program that calculates the future value of an investment.

Known values are: investment, number of years and monthly interest.

The formula for the future value is known from earlier education in math.

Use text fields to enter investment, interest and number years. Show the future value in a text field, when the user clicks a calculate button.

Below is shown a possible design of the window:



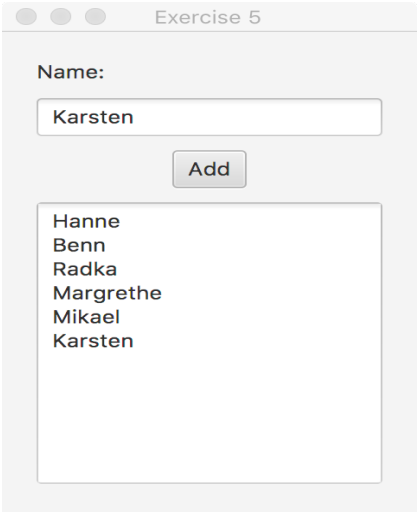
Exercise 4

Write a GUI-based program that can convert temperatures between Celsius and Fahrenheit (both ways).

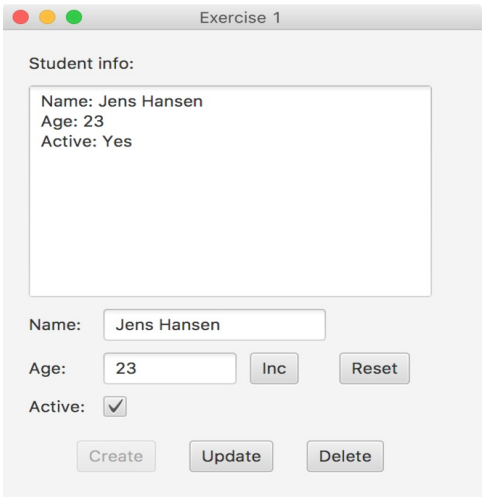
The formula is: $F = 9/5*C + 32$.

Exercise 5

Make a program with the GUI shown to the right. When the Add button is pressed, the name in the text field must be added to the *text area* at the bottom.



Exercise 6
Make a program with a Student class and graphical user interface (e.g. in a class named GuiEx6).



The Student class has 3 fields: name, age and active. Make a constructor for student objects, and getters and setters for the fields.

The program manages information about one student. You can see the GUI in the picture above.

Your job is to program the GUI according to the following description.

At top there is a text area (non-editable) that is going to show all the information about a student. Then there are 3 input fields: 2 text fields used to type in name and age, and a check box to set the activity level of the student.

The Create button creates a Student object from the values in the input fields, shows the info about the student in the text area, and clears the input fields (and disables/enables buttons). Hint: Make a Student field in the GuiEx6 class to remember the student in.

The Update button updates the Student object with the values in the input fields, and shows the updated info in the text area..

The Delete button deletes the Student object and clears the text area and the input fields.

The Inc button updates the value in the Age text field with 1.

The Reset button updates the input fields with values from the Student object.

Remember to disable/enable buttons to help the user of the program to use the program in the correct way.