The purpose of this lab is to use arrayLists – which are one type of "Collection" that you can use from the java collections framework:

Part 1 ArrayList 0.3

In a Control class (main method), create an ArrayList that stores <Person> objects.

You'll need a Person class. A person should have attributes first name, surname and city. Encapsulate the variable, include a full constructor and a toString() method that writes out a description of the person's attributes (as usual.. "this person is called … and lives in city ..")/

From your main method, populate your array list with three sample Person objects.

Using ArrayList methods, write java code that does the following:

(1) Prints the length of the length of the array to the console;
(2) Prints the contents of the array (i.e. object (using toString() methods of the Person class) by looping through the array.
(3) Copies the arraylist and all its content to another array list – so that you have two arraylists.

**Part 2 GUI, that uses an ArrayList to store info 0.6**

Create a GUI that looks like below, with 3 text fields (for entering first name, surname, and city – and 2 buttons.
In your GUI, add the following functionality :
Save button should populate an ArrayList with Person objects, using the data entered in the three text fields to populate each object (*Note: you are no longer using the arraylist from part 1*).   As you click the Save button, the object you just created should be displayed (i.e. call the toString() of the object) in a pop up as shown:
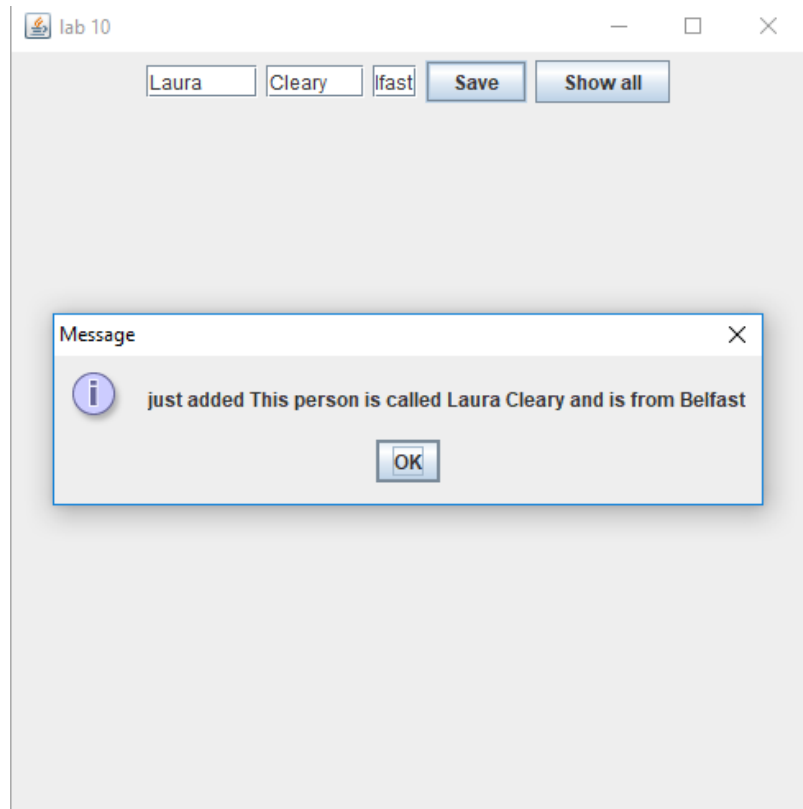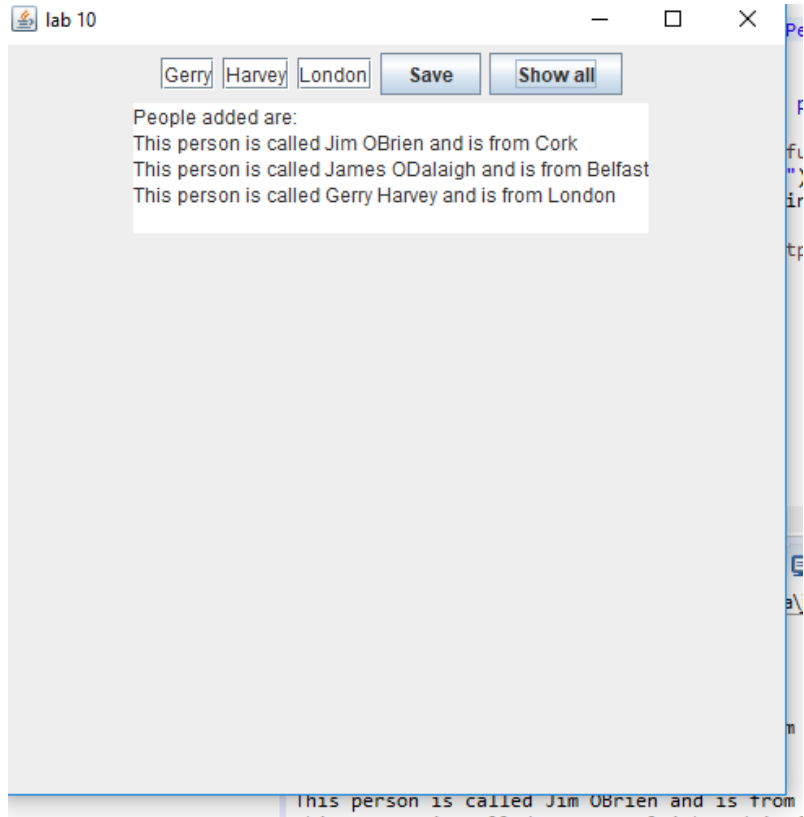
Part 3 Using the ArrayList 0.8

In your GUI, add the following functionality :

Show all button should display all the objects from the ArrayList in a text area (JTextArea is the class) as shown below:

Part 4 Delete   1

In your GUI, add a third button "delete" which deletes all elements in the ArrayList. Click the **Show all button** to make sure that the third button has cleared the contents