

CMPT 381 Assignment 3:

Widgets, Events, Layout, and Resizing

Date due: Sunday, January 31, 11:55pm

Overview

In this assignment you will demonstrate your skills with widgets, events, and layout managers in JavaFX. You will duplicate a given layout (see pictures below) and specify resizing behaviour to conform to the given example.

This assignment is to be done individually; each student will hand in an assignment.

Requirements

Build a JavaFX GUI system with the following specifications:

- Build the GUI shown in the pictures below, using JavaFX.
- Lay out the widgets to match Picture 1 (see below).
- Set up the UI's resizing behaviour to match Picture 2 (when the window is made smaller) and Picture 3 (when the window is made larger). If you consider how the elements will resize as you create the UI this shouldn't be too much work.
- An Android version of the system is *not* required
- The system should provide the following functionality for the user:
 - Selecting a country name from the list puts information about that country into the center panel of the UI
 - The country.java file provided has a method getCountries() which returns a list of countries. Each country has a name, description, and continent. They also have a code, which matches the file name of that country's flag (these pictures are also in the provided folder). This information should be sufficient to build the program, but you may modify the provided resources in any way, or not use them at all if you have a different way of getting the required data.
 - Checking the checkboxes at left filters the list of countries (if a checkbox is checked, that continent's countries appear in the list)
 - There is no checkbox for Australia in the example below, but the provided data includes Australia as a continent, so you should add a checkbox for it as well.
 - Clicking a country's "Store in Toolbar" button puts the country name into one of the buttons at the top of the UI (if one is available); clicking this button will thereafter load this country, and scroll the list so that the country name is showing, and highlight the country name in the list
 - Clicking "Remove from Toolbar" removes the country name from the buttons at the top of the UI (if it exists there)
- All UI events are logged to the text area at the bottom of the UI
 - For every event handler you make, add some text to the textbox (e.g. "asia_checkbox was clicked")
- The "Quit" button at bottom right quits the program
- The "Save" button brings up a file dialog and logs the resulting file path to the event-log panel (no actual saving required).

What to hand in

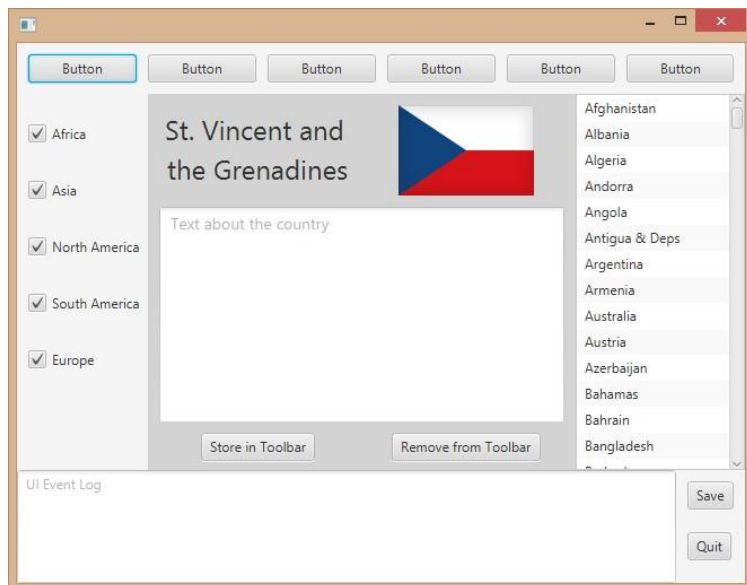
- A zip file of your JavaFX project.
- A readme.txt file that indicates exactly what the marker needs to do to run your code. (Note that your systems for 381 should never require the marker to install external libraries or any new downloads).

Where to hand in

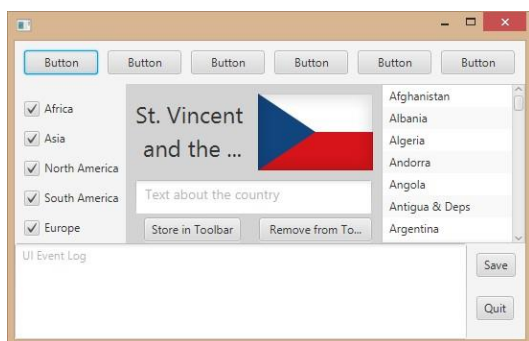
Hand in your files (one zipfile and one readme.txt) to the link on the course moodle.

Evaluation

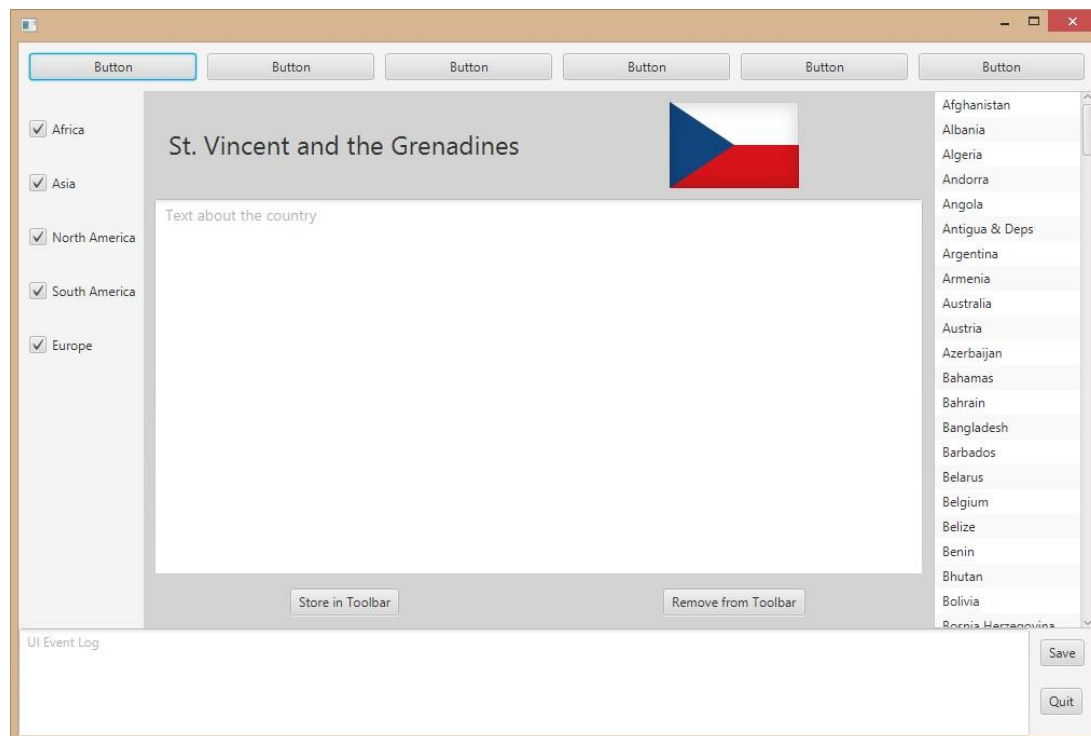
Marks will be given for producing a system that meets the requirements above, and compiles and runs without errors. Note that no late assignments will be allowed, and no extensions will be given.



Picture 1. Normal size



Picture 2. Small size



Picture 3. Large size