

LAB 5: MORE COMPLEX GUI DEVELOPMENT

This week you have a choice of tasks. Pick the ones you feel most comfortable with.

- Task 1: Get ready to implement FXML apps with Scene Builder
- Task 2: Try the exercise from the class (see Lecture 5A).
- Task 3: Introduce FXML to the phone app from Lab 03
- Task 4: Extend an FXML version of the phone app from Lab 03
 - Add some more advanced controls
 - Work with images
 - Design using stylesheets (css)

SETTING UP SCENE BUILDER

If you have not set up Scene Builder on your own computer yet or if you are an absolute novice to Scene Builder, check out the Lecture 03B slides or recording. If you are interested in learning more about JavaFX and SceneBuilder, there is an extensive course available on YouTube (https://www.youtube.com/playlist?list=PLrzWQu7Aipi26jZvP8JhEJgFPFEj_fojO).

ADDING FXML TO THE PHONE APP

Translate the Lab 3 work into an FXML project (you can create a new FXML project, or by adding FXML support to your existing project). If you need, please do download and check Labsheet 3 for reference.

TIP: If you have decided to go the route of adding FXML support to the existing project, it is still useful to create a new (throw away) FXML project, to see how it differs in locations like the "module info.java" and "pom.xml" from a project that does not support FXML. Once you have understood the differences, you can delete the (throw away) FXML project.

EXTENDING THE FXML PHONE APP

Use the FXML phone app you created in the previous step.

Integrate "clear" button

- Add some code for the "clear" button, allowing to reset the number display

Add "address book" combo box

- Add a combo box to the GUI, allowing the user to select a name (like an address book). Once selected the name should populate the number display with a phone number, populated from a data lookup in the code. You will need to:
 - Add a ComboBox control and populate the combo box with some names
 - In the code model, store name-telephone number pairs in a suitable data structure (e.g. a HashMap)
 - Put the retrieved phone number into the number display of the phone, ready to dial

Integrate multiple "state" images

- Integrate the onCall/offCall images by binding them to calls, triggering a swap at the beginning and end of a call.

Styling

- **Make the GUI pretty by using a good colour scheme.**
- **Make use of multiple stylesheets to allow user different customisable themes.**