

## Assignment 01 on SceneBuilder and JavaFX

**Problem:** In this problem, you will design a simple **Currency Converter** application with two scenes.

- **Scene 1:** The main converter interface where the user can enter an amount, choose a “From” currency and a “To” currency, and then click a button to perform the conversion. The result should be shown on a label.
- **Scene 2:** A conversion history view that displays the last conversions made in a table format (From, To, Amount, Result).

### Requirements:

1. The main scene should have:
  - A TextField for the amount input.
  - Two ComboBox controls for selecting “From” and “To” currencies.
  - A “Convert” button that calculates the converted value and shows it in a Label.
  - A “View History” button that switches to the history scene.
2. The history scene should have:
  - A TableView with four columns (From, To, Amount, Result).
  - A “Back” button to return to the main converter scene.
3. Validations:
  - If the amount field is empty or contains invalid data, display an error message in the result label.
  - Both currency selections must be made before conversion.
4. Logic:
  - Store each conversion as a new entry in a list that is shared between the scenes.
  - The history table must display all past conversions made during the program’s runtime.
5. Scene Switching:
  - Implement scene switching between the converter scene and the history scene.

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**Recorded Demonstration:** [CurrencyConverter\\_demo](#)

### Marks Distribution:

- Implementation of the Screens (3)
- Implementation of the Buttons and Event Handling (3)
- Currency Conversion Logic and History Recording (2)
- Proper Submission (2)

### Submission guideline:

You are to write your code inside an IntelliJ JavaFX project. Then zip the whole external folder and rename the folder in the following format: **student\_id.zip**

**Example:** If your student id is 011609889, your zip file should be 011609889.zip.

You must submit the entire **project folder** so that I can run it on my machine. Submitting only codes or class files that are not runnable will result in zero marks.

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**Deadline:** 25-08-2025 11:00 AM Please remember this is a strict deadline Under no circumstances, this deadline will change. **Failure to submit during the deadline will result in zero grades.**

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### Plagiarism Notice:

Do not copy from the internet, seniors, batchmates, or any other sources. You are welcome to discuss the problem with others, but you must write your own code. Any plagiarism detected will result in **-100% marks**.

Do not paste this question into ChatGPT and ask it to directly write the answer. You may use the tool to learn about concepts, syntax, or specific methods, but you must write your own code for the problem.

### Resources:

- [Observables](#) & [ObservableList](#)
- [ComboBox](#)
- [TableView](#)