

Laboratory 11

week 11 (8 December- 12 December 2025)

TASKS:

- A. Please submit the assignment A5, but you can also submit it in week 12 or 13 or 14 without any penalty.
- B. Please continue to work on the assignment A6. The deadline of the assignment A6 is week 12 (15 - 19 December 2025).
- C. Please start to work on assignment A7. The deadline of the assignment A7 is week 14 (12 - 16 January 2026).

Assignment 7

You must extend the JAVA project from the assignment A6. Please implement in JavaFX a GUI for your interpreter from the assignment A6. The GUI must support the following operations:

1. A window to select the program that will be executed. You can display the list of possible programs as a ListView. Each item of the ListView is the string representation of a possible program (IStmt).
2. The main window that displays the following information:
 - (a) the number of PrgStates as a TextField
 - (b) the HeapTable as a TableView with two columns: address and Value
 - (c) the Out as a ListView
 - (d) the FileTable as a ListView
 - (e) the list of PrgState identifiers as a ListView
 - (f) a Table View with two columns: variable name and Value, which displays the SymTable of the PrgState whose ID has been selected from the list described at (e)
 - (g) a List View which displays the ExeStack of the PrgState whose ID has been selected from the list described at (e). First element of the ListView is a string representation of the top of ExeStack, the second element of the ListView represents the second element from the ExeStack and so on.
 - (h) A button "Run one step" that runs oneStepForAllPrg (you have to design and implement the handler of this button based on the previous method allStep). After each run the displayed information is updated. You may want to write a service which wraps the repository and signals any change of the list of PrgStates.