

## CS 155 AY 2022-2023 PROBLEM SET 1

SPFESTIN

In Prof. Quiwa's Data Structures book, he used a notation to describe pseudocode called EASY. We provide a 6-page extract from the book that describes the EASY language.

This Problem Set has two parts.

In Part 1, you are asked to

- (1) extract all the possible TOKEN classifications from the EASY language, from the provided extract;
- (2) write regular expressions for each token classification;
- (3) determine the order of precedence for the different token classifications.

For Part 1, you need to submit a PDF file listing all the token classifications and the corresponding regular expression for each. This is due on **Thursday, March 30, 2023**. A submission bin will be provided in our UVLE page.

In Part 2, you will be asked to use *flex* to write a simple lexical analyzer for the EASY language. You are expected to use your submission from Part 1 for Part 2. You may modify what you have submitted in Part 1, if needed.

For Part 2, you need to submit a link to a git repository (and provide access to me). Links will be submitted again via UVLE. This is due on **Thursday, April 20, 2023** (after the 2-week break). I will provide (via UVLE) sample EASY code as test files, but you also need to write your own tests.