German University in Cairo

Department of Computer Science

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CSEN 1002 Advanced Computer Lab, Spring Term 2018

Lab 5, Left Recursion Elimination

Deadline: 27.03.18 - 02.04.18

In this task, you are asked to implement left recursion elimination algorithm. Your implementation of the task is to be as per the discussion provided in CSEN 1003 Compiler, Lecture 3, Slides 32-39 (Algorithm 4.19, Slide 34). The submitted code should follow the following points:

- There should be a standing alone method for the left recursion elimination algorithm, as its implementation should not be a section of a code in the main method.
- There are no restrictions on how the grammar is presented in your code. In other words, you may present the grammar as a string, or as various objects of classes.
- There are no restrictions on the input format, as the input grammars can be fed into your code as strings or constructors calls.
- The main method should include tests representing the example in the lecture slides (Slide 35), alongside the six problems presented in CSEN 1003 Compiler, Practice Assignment 4 (a Total of seven test cases).
- The input and the output grammars should be printable on the console.