COP4020 Homework Assignment 5

State the question in your paper above your answer.

1. Augment the following grammar of nested parenthesis with semantic rules to count the number of opening parenthesis:

   <parens> ::= (*<parens>*)

   <parens> ::= ε

   The synthesized attribute *parens*.num should hold the number of opening parenthesis.

2. Draw a decorated parse tree of the input ((())) using the augmented grammar of Exercise 1.

3. Write (on paper) a recursive descent parser (in Pseudo code or a programming language of your liking) for the augmented grammar of Exercise 1.

4. Textbook exercise 4.5.