Assignment 2

January 22, 2015

Deadline

11:59 PM on 28th February, 2015

Problem

Write a Parser for the source language that you have chosen. The output of the parser must be the *parse tree* of the input program in the *dot* format (that can be rendered using *Graphviz*).

Details

- Your implementation should read the source filename as its first command-line parameter; it should produce its output as a dot file. For example, for an input program "abc.c", it should produce a dot file "abc.dot".
- You must use <u>your</u> implementation of the lexer done as a part of Assignment 1. You are allowed to do minor modifications over your assignment 1 submission.
- You must use a parser generator like Yacc, Bison etc.
- The tool should be robust; syntactically incorrect programs must be duly reported.
- You have to submit a zipped folder (name the folder "asgn2") with:
 - the source of the implementation (in a folder called "src" within "asgn2";
 - a Makefile to build the implementation (it should generate an executable called "parser" in the folder "asgn2/bin";
 - a set of at least 5 test cases that you have used to check your implementation (in a folder "asgn2/test");
 - a README file with a brief description for building and running it (within "asgn2").

Binaries should NOT be part of the submission. Clean the folder of all object and executable files before submission.

- We will apply the following set of commands to build and run your implementation; make sure that your implementation works correctly with these sequence of commands:
 - cd asgn2
 - make
 - bin/parser test/test1.c (to execute the first test-case file test1.c)
 - dotty test1.dot (you can assume that our test machines will have Graphviz installed; you <u>must not</u> package Graphviz with your submission)

Links

http://www.graphviz.org/