CSE 310

Assignment 3

1) You must use the given .lex and .y file. Rename it as <your_student_id>.lex and <your_student_id>.y file. *(Marks-2)*

2) Take the input file given "your_student_id_input.txt" as your input. You must show the output in a file "your_student_id_output.txt" and also in the console (terminal). *(Marks-3)*

3) Modify the .lex and .y file so that your parser can accomodate the following rules. *(Marks-15)*

PROGRAM   -> PRELI MAIN

PRELI   -> PRELI INCLUDE | (NULL)

MAIN   -> VOID MAINFUNC CURLYFIRST FULLEXPR CURLYLAST | (NULL)

FULLEXPR   -> EXPR1 | EXPR2 | (NULL)

EXPR1   -> IF_EXPR EXPR2 | EXPR2 IF_EXPR EXPR2 | EXPR2 IF_EXPR

IF_EXPR   -> IF PARENFIRST EXPR PARENLAST EXPR2 | IF PARENFIRST EXPR PARENLAST EXPR2 ELSE
                  EXPR2

EXPR2   -> EXPR SEMICOLON

EXPR   -> EXPR RELOP NUM | EXPR RELOP ID | ID

4) As output you have to show the matched rule ALONG WITH the portion of the input has been matched (the output is same but you have to show both in console and output file as specified in 2).
(Marks-10)

(BONUS) Make some change of the grammar so that it can recognize a simple "for...loop" part immediately after the "if...else" part. *(Marks- 5)*

SUBMISSION DEADLINE: November 14, 2015 (<u>SATURDAY</u>) at 11:55pm

<u>Note:</u>

1) There will be severe PUNISHMENT for any type of plagiarism.
2) The assignment folder contains a file named "your_student_id_input.txt". Take it as your input file to test. You may use any other input file for your test.
3) When you change the name of the of the lex file and y file, keep in mind to change the file names in the command.sh file.
4) For any valid reason, the assignment problem can be slightly modified. If this is the case then the version of the assignment will also be changed and will be uploaded in moodle.
5) For any type of problem, feel free to communicate with
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