

CS3423: Assignment 1

Lex and Yacc

CS22BTECH11015-CS22BTECH11047

Instructions:

- Open the directory where the code is located.
- Run “make”
- This will generate the executable “parser.o”
- To execute, run : “./parser.o <input_file.txt>”
- Note that you need to give the relative path of input files as the command line parameter (for example: ./parser.o test/t1.txt)
- All the files (log files and cpp file) are generated in the test folder.
- To run the code, navigate to test directory, compile by running “g++ output.cpp” and then execute by running “./a.out”

Assumptions:

We are assuming that the code provided for testing will not be very long, because we are using malloc for memory allocation and it gives undefined behavior when we try to allocate a significant amount of memory.

Justification:

Alternate 1 is correct and implemented. Alternate 2 is incorrect because:

The given syntax is:

INDENT if *predicate*:

body

INDENT else if *predicate*:

body

INDENT else:

body

So, if there is some code after the else part, there is no way to find where the body of the 'else' part completes. In other words, it is not known whether a given statement is part of the else block or not. Hence, this grammar is ambiguous.

We should have INDENT at each line to know in which depth a particular statement is present. Hence, we do not face any scope related issues.