

Indian Institute of Information Technology, Nagpur
Department of Computer Science and Engineering

Session:2019-2020

Course: Compiler

Lab Assignment 3

Semester: VI

Marks: 10

This assignment is based on creating a Semantic Analysis for C language program. Your semantic analyser will traverse your parse tree (as many times as is necessary) and validate that the semantic rules of the language are being respected, printing appropriate error messages for violations.

Semantic Rules are:

1. In C, you cannot use the reserved keyword or identifier.
2. Arithmetic operations require numbers/integers.
3. New declarations don't conflict with earlier ones
4. Break and Continue statements only appear in loops
5. The actual parameter's type in a call must be compatible with the formal parameter's type.

Assume you have only assignment statements of the form "a=b" and "a=b+c".

Assume that you have only if-statement and if-else-statement - no loops and switch.