



Department of Computer Science and Engineering
Bangladesh University of Engineering and Technology
CSE 310 (Compilers Sessional)

Assignment-2, Assignment on Flex/Lex, Full Marks: 40
Submission Deadline: Sunday 11th October, 2015, 2:00pm

1. Add functionality to the given code so that inputs are read from a file and outputs are written to files as elaborated later on. The input file should be named <your student ID>input.txt. (3)
2. Add functionality to the given code so that it can handle C/C++ style comments. (5)
3. Add functionality to the given code so that ID's are saved in the symbol table with the following attributes, (10)
 - i. lexeme,
 - ii. line number,
 - iii. character position from start of the line.

If there are more than one occurrences of an ID, the last two attributes are to be saved in the symbol table for each occurrence.

4. Add functionality to the given code so that NUM's are saved in a number table with the actual value as attribute. You need to note that two NUM's, with identical lexemes, are to be treated as different entities unlike ID's. (6)
5. Add functionality to the given code so PM and MD tokens use proper attributes. (6)
6. Put the complete token list along with attributes in an output file named, <your student ID>output.txt. For ID and NUM, pointers to the corresponding tables are to be displayed in places of lexemes shown by the supplied code. (10)

Attributes for PM and MD are to be shown as well.

Comments, though tokenized, will not appear in this list.

At the end, print on the screen,

- i. contents of symbol table,
- ii. contents of number table.

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You will achieve the aforementioned functionalities only by modifying the code discussed in class. Any other completely different code developed from scratch will not be acceptable.

Your Flex/Lex is to be named <your student ID>code.lex. Upload your codes, if necessary as a single zipped file, named, <your student ID>.zip to departmental Moodle site by the stipulated deadline. The previously stated policy regarding plagiarism in any form shall be strictly maintained.

It is your responsibility to ensure the logistic requirements including availability of Internet for successful submission of your assignment. No exceptions shall be admissible.