CS301P Compiler Design Laboratory Exercises #5

Date: Sep 08 2023

Objectives

- To learn *Yacc: Yet Another Compiler Compiler.*

Description

1. The problem is to verify a given complex number is in a proper format. Here you need to read a complex number and print VALID if the number is a valid complex number, otherwise print INVLAID. Instead of one number, you may read a list of complex numbers seperated by ; operator and print VALID or INVALID against each number.
2. The problem is to verify a given date is valid or not. Here you need to read the date in the format $DD-MON-YYYY$ format, where DD should be in $[1 \ldots 31]$, month should be $\{Jan, Feb, \ldots, Dec\}$, and $YYYY$ should be between $[0000 \ldots 9999]$. Instead of one number, you may read a list of complex numbers seperated by ; operator and print VALID or INVALID against each number.

Submission Guidelines

The assignment should be submitted in the following format.

1. All files and folders should be lowercase letters
2. Create a folder with name "yourrollnumber_lab5" (roll no CS21B001, the directory name should be cs21b001_lab1).
3. Prepare separate lex file for each problem.
4. The lex/yacc files and makefile should be named as prob1.l, probl1.y prob2.l, prob2.y and Makefile with fname directive to read any file dynamically through command line.
5. The final target for each problem should be be named as **parser**. That is, makefile should generate final executable file named **parser**.
6. The input must be given through a file and the file name should be taken through command line arguments.

7. Inorder to test your parser, submit four input files as well. The names of these input files should be inp1 and inp2. No extension is needed. These test files should verify different aspects of your lexer.
8. Copy all the files (including self declaration form) into the folder created in Step 2.
9. Don't submit any unrelated or executable files.
10. Finally tar and compress yourrollnumber_lab5 directory as yourrollnumber_lab5.tar.gz and upload the same to the course page at Google Classroom before the due date.

Evaluation Guidelines

- Complaince - adherance to the instructions, naming conventions, code readability, comments, beautification, and quality of content in readme file. (10marks)
- Correctness - logic/approach, working makefile, compilation with no errors and warnings. (10marks)
- Completeness - ability to work for different testcases and presentation of the output (i.e., output beautification). (10marks)

Academic Honesty

Any kind of copying, sharing code with others, and malpractices attract high penalties to the extent of referring to the **Institute Level Disciplinary committee**. To this end, your submission must include a signed self declaration in the following format.

Declaration of Academic Honesty

I declare that i) the assignment here submitted is original except for source material explicitly acknowledged in the **readme** file; ii) I have not distributed or shared the assignment either wholly or partly to the fellow students of the course - Compiler Design; iii) I have not copied the assignment either partly or wholly from the fellow students of the course.

I am aware that I will be held responsible and liable to disciplinary actions if I am found guilty.

Full Name:

Roll No:

Date:

Signature of the student