Government Engineering College, Thrissur

CS331 – System Software Lab

Documentation -

Exp 8 – Pass 1 of Two Pass Assembler

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Experiment 8

Implement pass one of a two pass assembler

Compilation of Code

Prerequisite

- The code is provided in the **program.c** along with this documentation. You can open the terminal in Linux (Ubuntu 18.04 tested). Then run the command

  gcc program.c

  ./a.out

- We have **two** input files. One is *optab.txt* which denote the OPTAB of the assemblers. Also most importantly the source code is stored in the *input,txt.* Note in reality this file will be of *.asm extension. For the simplicity here we use *.txt extension

  1. *optab.txt:* It stores the operation codes allowed in the assembly language. Format for the input is

     <Opcode (String)> <Tab> <Hex Code corresponding to opcode (String)>

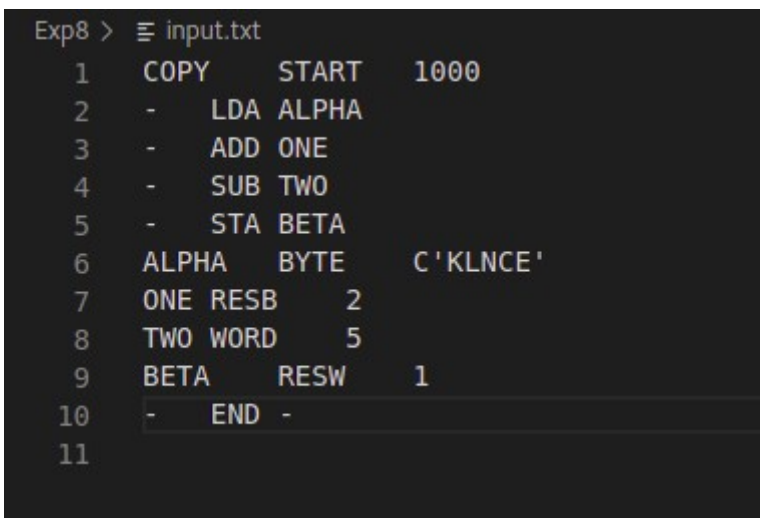
  2. *input.txt:* We store the assembly language in this file. The assembly language used is SIC (Simple Instruction Computer)

- Output of the code will be printed on the **console** and the SYMTAB will be stored to ***symtab.txt*** file
- **Note: Please see the output.txt file for the output I got on my machine.**
- **Note: There is no specific input file for this program**

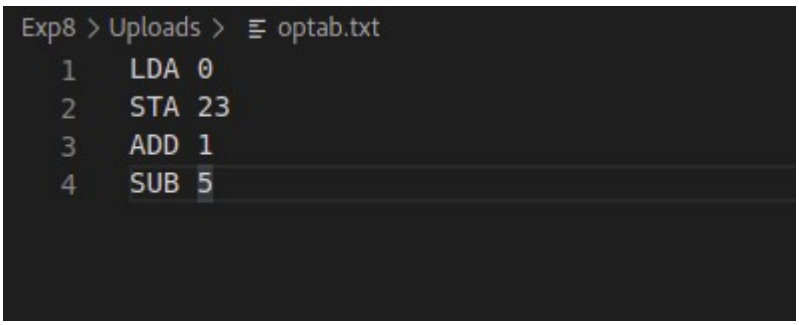
Output / Screenshots

Input

Source code – input.txt

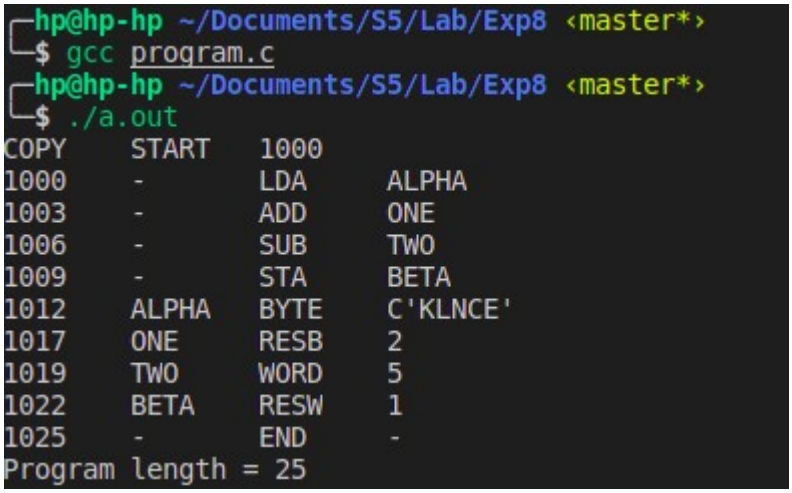


OPTAB – optab.txt



Output

Output to console



SYMTAB – symtab.txt