**Write a LEX specification file to take input C program from a .c file and count the number of characters, number of lines & number of words.**

Lex Program: (count\_lines.l)

%{

int nchar, nword, nline;

%}

%%

\n { nline++; nchar++; }

[^ \t\n]+ { nword++, nchar += yyleng; }

. { nchar++; }

%%

int yywrap(void) { return 1;

}

int main(int argc, char \*argv[]) { yyin = fopen(argv[1], "r"); yylex();

printf("Number of characters = %d\n", nchar); printf("Number of words = %d\n", nword); printf("Number of lines = %d\n", nline); fclose(yyin);

}

Input Source Program: (sample.c)

#include<stdio.h> void main()

{

int a,b,c = 30;

printf("hello");

}

Compilation & Execution of Lex Program:

Open Command prompt and switch to your working directory where you have stored your lex file (“.l“).

Let lex file be “count\_lines.l”. Now, follow the preceding steps to compile and run lex program.

For Compiling Lex file:

flex count\_lines.l

gcc lex.yy.c

For Executing the Program a.exe sample.c

Sample Output:

G:\lex>flex count\_line.l G:\lex>gcc lex.yy.c

G:\lex>a.exe sample.c Number of characters = 71 Number of words = 10 Number of lines = 6

G:\lex>