Exp. No.: 8 Count characters, words and lines using Flex Tool

**AIM:**

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:**

1. Open Command prompt and switch to your working directory where you have stored your lex file (“.l“).
2. Let lex file be “count\_lines.l”. Now, follow the preceding steps to compile and run lex program.

For Compiling **Lex** file:

* + 1. flex count\_lines.l
    2. gcc lex.yy.c
  1. For **Executing** the Program
     1. a.exe sample.c

**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>