**AIM:** Write a lex program to count the number of lines, tabs, characters, spaces, and words from the input C program. (Note: It is compulsory to read the input from the file and display the results in another file)

**CODE:**

**Practical\_2.c**

#include <stdio.h>

// Function to calculate factorial

int factorial(int number) {

int fact = 1, i;

if (number < 0) {

return -1;

} else {

for (i = number; i >= 1; i--) {

fact \*= i;

}

return fact;

}

}

**Cd\_Practical\_2.l**

#include <ctype.h>

int lines = 0;

int tabs = 0;

int chars = 0;

int spaces = 0;

int words = 0;

%}

%%

\n { lines++; }

\t { tabs++; }

[ \t] { spaces++; }

[a-zA-Z]+ { words++; }

. { chars++; }

%%

int main(int argc, char \*\*argv) {

if (argc != 3) {

fprintf(stderr, "Usage: %s <input file> <output file>\n", argv[0]);

return 1;

}

FILE \*infile = fopen(argv[1], "r");

FILE \*outfile = fopen(argv[2], "w");

if (!infile || !outfile) {

perror("File error");

return 1;

}

yyin = infile;

yyout = outfile;

yylex();

fprintf(outfile, "Lines: %d\n", lines);

fprintf(outfile, "Tabs: %d\n", tabs);

fprintf(outfile, "Characters: %d\n", chars);

fprintf(outfile, "Spaces: %d\n", spaces);

fprintf(outfile, "Words: %d\n", words);

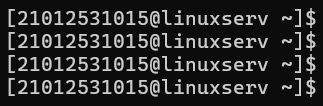
fclose(infile);

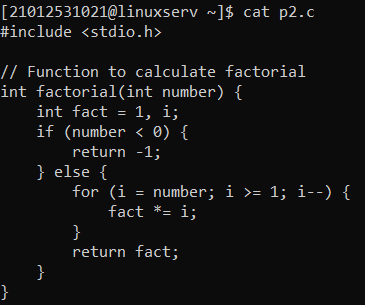
fclose(outfile);

return 0;

}

**OUTPUT:**



****

