**PROGRAM 13:**

Write a C program for implementing a Lexical Analyzer to Count the number of characters, words, and lines .

CODE:-

#include <stdio.h>

#include <ctype.h>

int main() {

FILE \*file;

char filename[100], ch;

int characters = 0, words = 0, lines = 0;

int inWord = 0;

printf("Enter the filename: ");

scanf("%s", filename);

file = fopen(filename, "r");

if (file == NULL) {

printf("Error: Cannot open file.\n");

return 1;

}

while ((ch = fgetc(file)) != EOF) {

characters++;

if (ch == '\n')

lines++;

if (isspace(ch))

inWord = 0;

else if (!inWord) {

inWord = 1;

words++;

}

}

fclose(file);

printf("\nTotal Characters: %d\n", characters);

printf("Total Words: %d\n", words);

printf("Total Lines: %d\n", lines);

return 0;

}

OUTPUT:-

