Experiment-13

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

Program:

#include <stdio.h>

int main() {

char c;

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

printf("Enter text (Ctrl+D or Ctrl+Z to end input):\n");

while ((c = getchar()) != EOF) {

characters++;

// Check for a new line

if (c == '\n') {

lines++;

words++;

}

// Check for a space or tab to count words

if (c == ' ' || c == '\t') {

words++;

}

}

// Handling the case where the last line might not end with a newline

if (characters > 0) {

lines++;

words++;

}

printf("Total number of characters: %d\n", characters);

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

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

return 0;

}

Out put:

