**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() {

char text[] = "Hello.\n"

"Im Prajiith\n"

"Studying in Saveetha School of Engineering\n"

"B.tech AI & DS IInd yr";

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

int inWord = 0;

int i = 0;

while (text[i] != '\0') {

characters++;

if (text[i] == '\n') {

lines++;

}

if (isspace(text[i])) {

inWord = 0;

} else if (inWord == 0) {

inWord = 1;

words++;

}

i++;

}

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

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

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

return 0;

}

