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 str[100];

int words=0,newline=0,characters=0;

printf("Enter a string (press ~ to end input):\n");

scanf("%[^~]",&str);

for(int i=0;str[i]!='\0';i++)

{

if(str[i] == ' ')

{

words++;

}

else if(str[i] == '\n')

{

newline++;

words++;

}

else if(str[i] != ' ' && str[i] != '\n'){

characters++;

}

}

if(characters > 0)

{

words++;

newline++;

}

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

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

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

return 0;

}

**OUTPUT:**

