4.Design a lexical Analyzer to find the number of whitespaces and newline characters.

#include <stdio.h>

int main() {

    char input\_text[] = "This is a sample text\nwith multiple\nlines and some spaces     ";

    int whitespace\_count = 0;

    int newline\_count = 0;

    char \*ptr = input\_text;

    while (\*ptr != '\0') {

        if (\*ptr == ' ') {

            whitespace\_count++;

        } else if (\*ptr == '\n') {

            newline\_count++;

        }

        ptr++;

    }

    printf("Number of whitespaces: %d\n", whitespace\_count);

    printf("Number of newlines: %d\n", newline\_count);

    return 0;

}

Output:

