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

**PROGRAM:**

#include <stdio.h>

int main() {

char ch;

int whitespaceCount = 0;

int newlineCount = 0;

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

while (1) {

scanf("%c", &ch);

if (ch == '~') {

break;

}

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

whitespaceCount++;

} else if (ch == '\n') {

newlineCount++;

}

}

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

printf("Number of newline characters: %d\n", newlineCount);

return 0;

}

**OUTPUT:**

