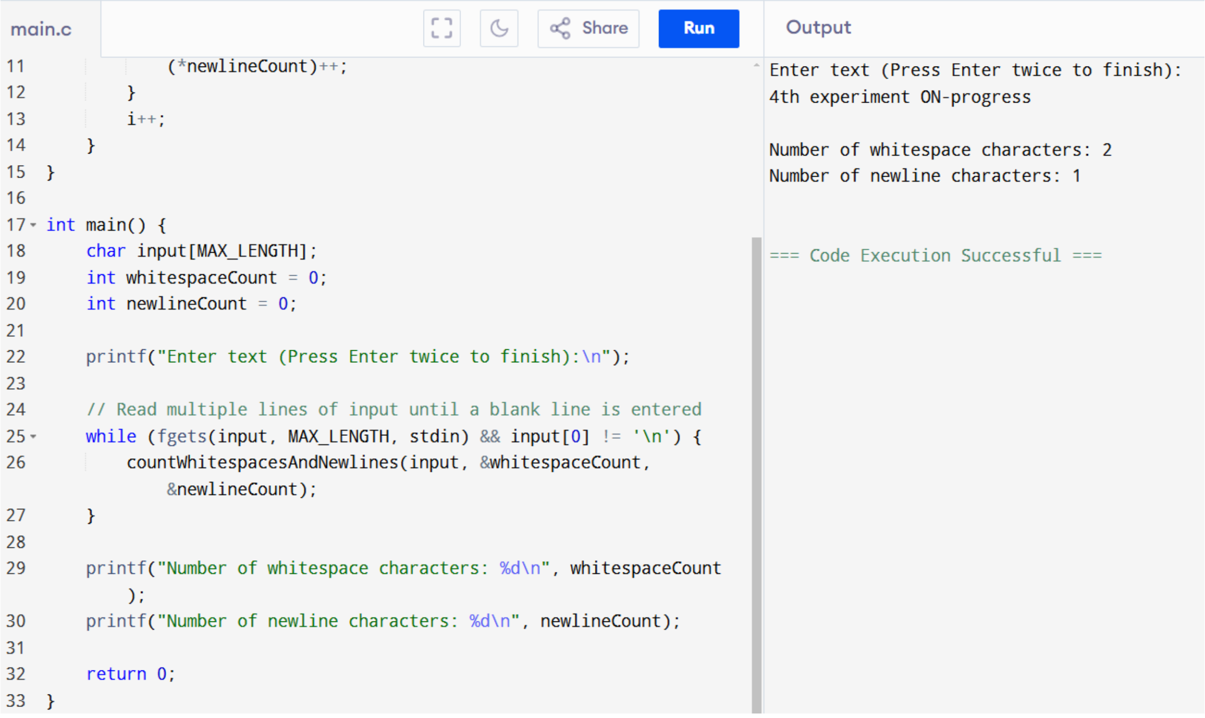
Design a lexical Analyzer to find the number of whitespaces and newline characters.

PGM:

```
#include <stdio.h>

#define MAX_LENGTH 1000

void countWhitespacesAndNewlines(const char *input, int *whitespaceCount, int *newlineCount) {
    int i = 0;
    while (input[i] != '\0') {
        if (input[i] == ' ' || input[i] == '\t') {
            (*whitespaceCount)++;
        } else if (input[i] == '\n') {
            (*newlineCount)++;
        }
        i++;
    }
}

int main() {
    char input[MAX_LENGTH];
    int whitespaceCount = 0;
    int newlineCount = 0;

    printf("Enter text (Press Enter twice to finish):\n");

    // Read multiple lines of input until a blank line is entered
    while (fgets(input, MAX_LENGTH, stdin) && input[0] != '\n') {
        countWhitespacesAndNewlines(input, &whitespaceCount, &newlineCount);
    }

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

    return 0;
}
```

OUTPUT:



```
            (*newlineCount)++;
        }
        i++;
    }
}

int main() {
    char input[MAX_LENGTH];
    int whitespaceCount = 0;
    int newlineCount = 0;

    printf("Enter text (Press Enter twice to finish):\n");

    // Read multiple lines of input until a blank line is entered
    while (fgets(input, MAX_LENGTH, stdin) && input[0] != '\n') {
        countWhitespacesAndNewlines(input, &whitespaceCount,
            &newlineCount);
    }

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

    return 0;
}
```

```
Enter text (Press Enter twice to finish):
4th experiment ON-progress

Number of whitespace characters: 2
Number of newline characters: 1


=== Code Execution Successful ===
```