

Experiment -2

Develop a lexical Analyzer to identify whether a given line is a comment or not using C program.

Program:

```
#include <stdio.h>
#include <string.h>

int main() {
    char line[200];

    printf("Enter a line of code:\n");
    fgets(line, sizeof(line), stdin);
    int len = strlen(line);

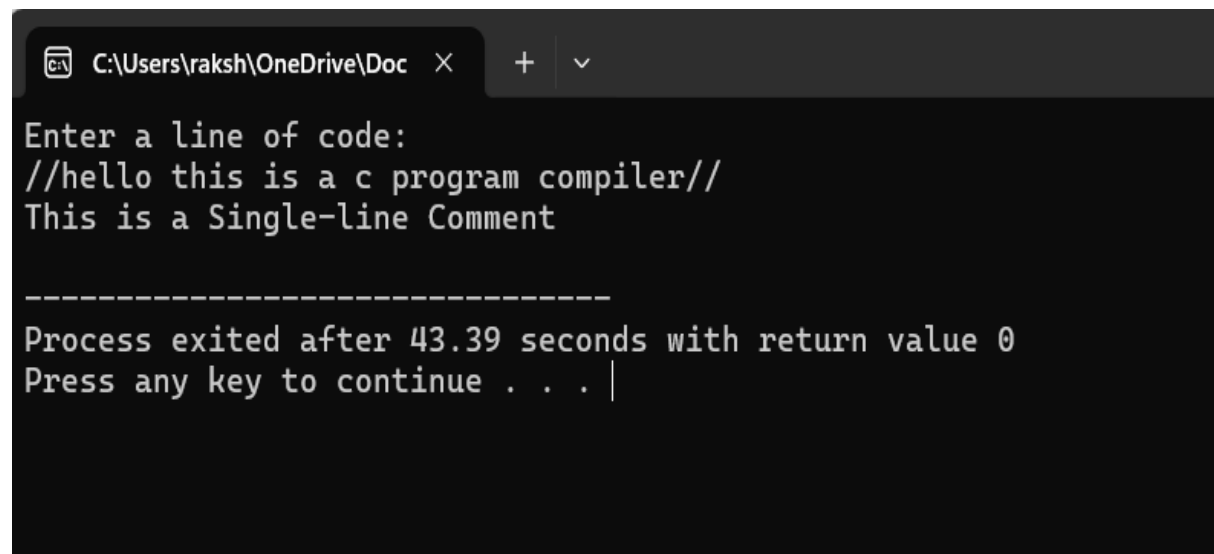
    /* Remove newline character */
    if (line[len - 1] == '\n')
        line[len - 1] = '\0';

    /* Check for single-line comment */
    if (line[0] == '/' && line[1] == '/') {
        printf("This is a Single-line Comment\n");
    }

    /* Check for multi-line comment */
    else if (line[0] == '/' && line[1] == '*') {
        int L = strlen(line);
        if (line[L - 2] == '*' && line[L - 1] == '/')
            printf("This is a Multi-line Comment\n");
        else
            printf("Invalid Comment: Missing */\n");
    }
    else {
        printf("This is NOT a Comment\n");
    }

    return 0;}
}
```

Output:



The screenshot shows a code editor window with a dark theme. The title bar at the top indicates the file path is `C:\Users\raksh\OneDrive\Doc`. The editor contains the following C code:

```
Enter a line of code:  
//hello this is a c program compiler//  
This is a Single-line Comment  
  
-----  
Process exited after 43.39 seconds with return value 0  
Press any key to continue . . . |
```