



UITs

**UNIVERSITY OF INFORMATION
TECHNOLOGY AND SCIENCES**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Lab Report

Course Code: CSE 352

Course Title: Compiler Lab.

Submitted By-

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Section- C1

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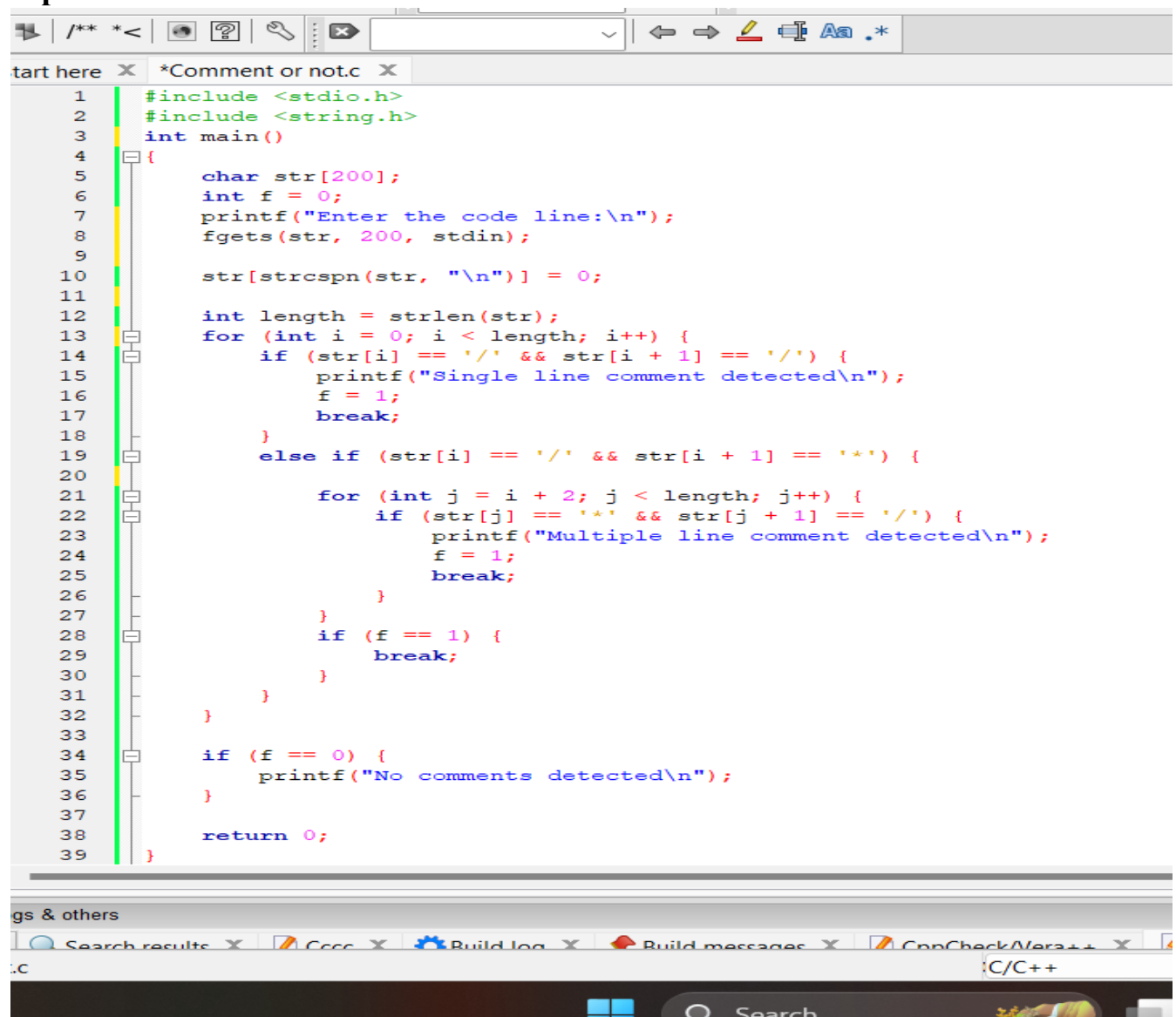
The Topic of Lab:

Find out a comment on a code.

Introduction:

In programming, finding a comment within a code is crucial for understanding the purpose, functionality, or context of that specific piece of code. Comments serve as notes written by developers to explain the code logic, improve readability, and facilitate collaboration among team members working on the same project. They provide valuable insights into the code's intended behavior and help developers troubleshoot or modify the code more effectively.

Input:



```
1  #include <stdio.h>
2  #include <string.h>
3  int main()
4  {
5      char str[200];
6      int f = 0;
7      printf("Enter the code line:\n");
8      fgets(str, 200, stdin);
9
10     str[strcspn(str, "\n")] = 0;
11
12     int length = strlen(str);
13     for (int i = 0; i < length; i++) {
14         if (str[i] == '/' && str[i + 1] == '/') {
15             printf("Single line comment detected\n");
16             f = 1;
17             break;
18         }
19         else if (str[i] == '/' && str[i + 1] == '*') {
20             for (int j = i + 2; j < length; j++) {
21                 if (str[j] == '*' && str[j + 1] == '/') {
22                     printf("Multiple line comment detected\n");
23                     f = 1;
24                     break;
25                 }
26             }
27         }
28         if (f == 1) {
29             break;
30         }
31     }
32
33     if (f == 0) {
34         printf("No comments detected\n");
35     }
36
37     return 0;
38 }
```

Output:

The screenshot shows a C program in a text editor. The program includes `<stdio.h>` and `<string.h>`. It defines a `main` function that prompts the user to "Enter the code line:". It then reads a line of input into a `str` array of size 200. It checks for single line comments by looking for a single quote followed by a backslash and another single quote. If found, it prints "Single line comment detected". It also checks for multiple line comments by looking for two backslashes followed by an asterisk. If found, it prints "Multiple line comment detected". If no comments are detected, it prints "No comments detected". The program returns 0.

```
#include <stdio.h>
#include <string.h>
int main()
{
    char str[200];
    int f = 0;
    printf("Enter the code line:\n");
    fgets(str, 200, stdin);

    str[strcspn(str, "\n")] = 0;

    int length = strlen(str);
    for (int i = 0; i < length; i++) {
        if (str[i] == '/' && str[i + 1] == '/') {
            printf("Single line comment detected\n");
            f = 1;
            break;
        }
        else if (str[i] == '/' && str[i + 1] == '*') {
            for (int j = i + 2; j < length; j++) {
                if (str[j] == '*' && str[j + 1] == '/') {
                    printf("Multiple line comment detected\n");
                    f = 1;
                    break;
                }
            }
            if (f == 1) {
                break;
            }
        }
    }

    if (f == 0) {
        printf("No comments detected\n");
    }

    return 0;
}
```

The output window shows the following text:

```
Enter the code line:
printf("Check");//comment
Single line comment detected

Process returned 0 (0x0)   execution time : 22.333 s
Press any key to continue.
```

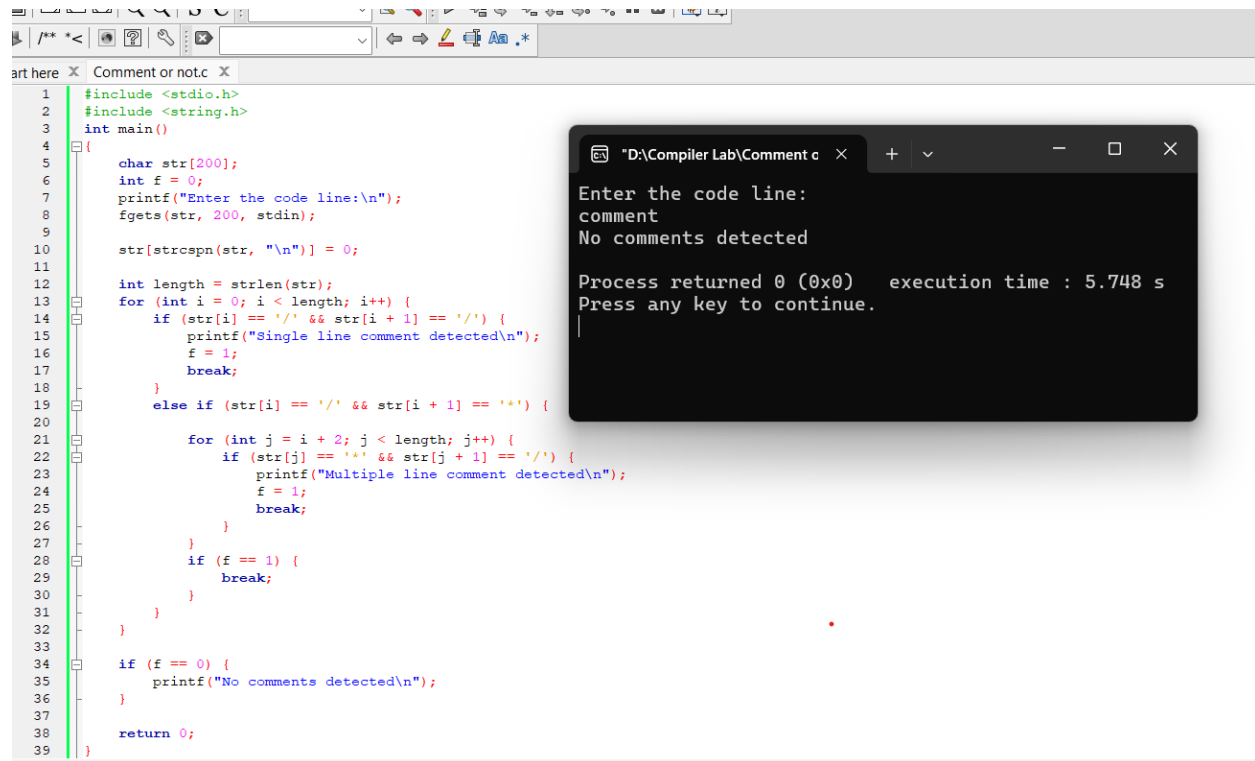
The screenshot shows a C program in a text editor. The program includes `<stdio.h>` and `<string.h>`. It defines a `main` function that prompts the user to "Enter the code line:". It then reads a line of input into a `str` array of size 200. It checks for single line comments by looking for a single quote followed by a backslash and another single quote. If found, it prints "Single line comment detected". It also checks for multiple line comments by looking for two backslashes followed by an asterisk. If found, it prints "Multiple line comment detected". If no comments are detected, it prints "No comments detected". The program returns 0.

```
1 #include <stdio.h>
2 #include <string.h>
3 int main()
4 {
5     char str[200];
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7     printf("Enter the code line:\n");
8     fgets(str, 200, stdin);
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10    str[strcspn(str, "\n")] = 0;
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12    int length = strlen(str);
13    for (int i = 0; i < length; i++) {
14        if (str[i] == '/' && str[i + 1] == '/') {
15            printf("Single line comment detected\n");
16            f = 1;
17            break;
18        }
19        else if (str[i] == '/' && str[i + 1] == '*') {
20            for (int j = i + 2; j < length; j++) {
21                if (str[j] == '*' && str[j + 1] == '/') {
22                    printf("Multiple line comment detected\n");
23                    f = 1;
24                    break;
25                }
26            }
27            if (f == 1) {
28                break;
29            }
30        }
31    }
32
33    if (f == 0) {
34        printf("No comments detected\n");
35    }
36
37    return 0;
38 }
39
```

The output window shows the following text:

```
printf("Check comment");//*comment*/
Multiple line comment detected

Process returned 0 (0x0)   execution time : 90.331 s
Press any key to continue.
```



```
1 #include <stdio.h>
2 #include <string.h>
3 int main()
4 {
5     char str[200];
6     int f = 0;
7     printf("Enter the code line:\n");
8     fgets(str, 200, stdin);
9
10    str[strcspn(str, "\n")] = 0;
11
12    int length = strlen(str);
13    for (int i = 0; i < length; i++) {
14        if (str[i] == '/' && str[i + 1] == '/') {
15            printf("Single line comment detected\n");
16            f = 1;
17            break;
18        }
19        else if (str[i] == '/' && str[i + 1] == '*' ) {
20
21            for (int j = i + 2; j < length; j++) {
22                if (str[j] == '*' && str[j + 1] == '/') {
23                    printf("Multiple line comment detected\n");
24                    f = 1;
25                    break;
26                }
27            }
28            if (f == 1) {
29                break;
30            }
31        }
32    }
33
34    if (f == 0) {
35        printf("No comments detected\n");
36    }
37
38    return 0;
39 }
```

art here X Comment or not.c X

"D:\Compiler Lab\Comment c X + - □ X

Enter the code line:
comment
No comments detected

Process returned 0 (0x0) execution time : 5.748 s
Press any key to continue.

Conclusion:

It is a simple code to find out a comment from a code and it is run successfully.