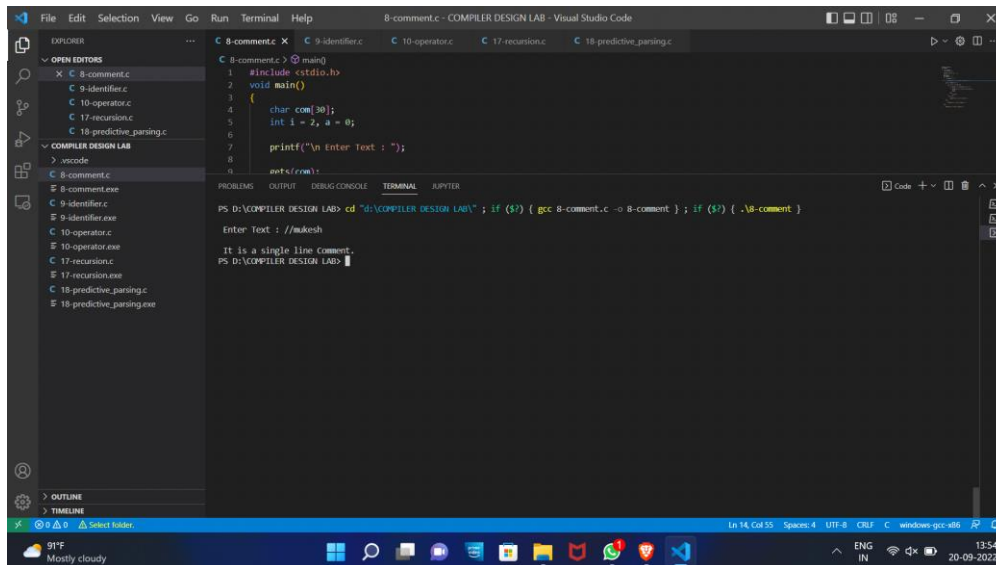


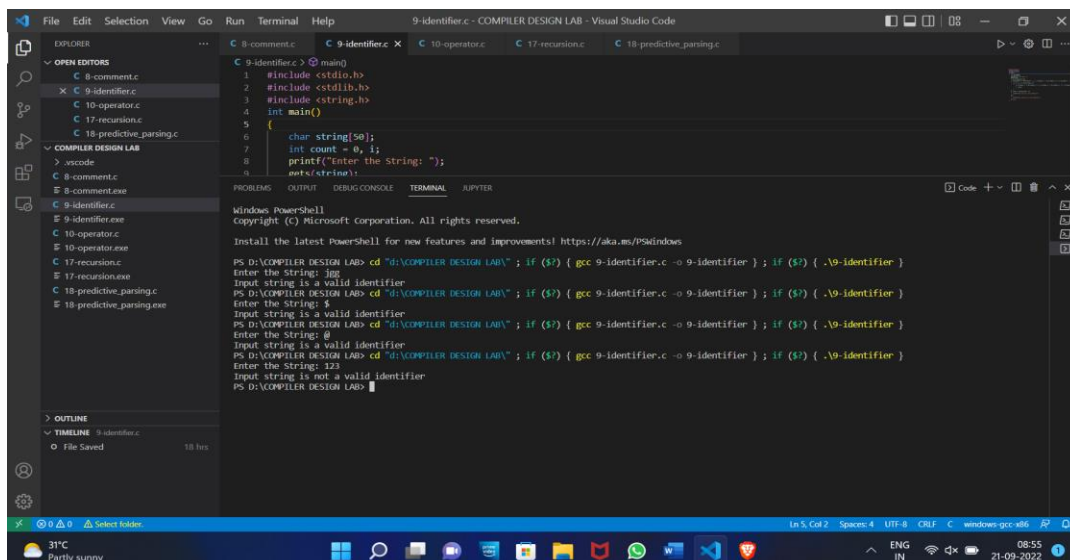
1. Write a C program to identify whether a given line is a comment or not



The screenshot shows a Visual Studio Code window with a C program named `8-comment.c`. The program includes `stdio.h` and defines a `main` function. It declares a character array `com[30]` and an integer `i`. It prompts the user to enter text and then checks if the input is a single-line comment by looking for a single backslash followed by a space. The terminal output shows the program running and correctly identifying the input `//mukesh` as a single-line comment.

```
1 #include <stdio.h>
2 void main()
3 {
4     char com[30];
5     int i = 2, a = 0;
6
7     printf("\n Enter Text : ");
8
9     gets(com);
10
11     PS D:\COMPILER DESIGN LAB> cd "D:\COMPILER DESIGN LAB\"; if ($?) { gcc 8-comment.c -o 8-comment }; if ($?) { .\8-comment }
12
13 Enter Text : //mukesh
14
15 It is a single line Comment.
16 PS D:\COMPILER DESIGN LAB>
```

2. Write a C program to test whether a given identifier is valid or not.



The screenshot shows a Visual Studio Code window with a C program named `9-identifier.c`. The program includes `stdio.h`, `stdlib.h`, and `string.h`. It defines a `main` function that declares a character array `string[50]` and an integer `i`. It prompts the user to enter a string and then checks if it is a valid identifier by iterating through each character and ensuring it is either an underscore or an alphanumeric character. The terminal output shows the program running and correctly identifying the input `jag` as a valid identifier and `123` as not a valid identifier.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 int main()
5 {
6     char string[50];
7     int count = 0, i;
8     printf("Enter the String: ");
9     gets(string);
10
11     Windows PowerShell
12     Copyright (C) Microsoft Corporation. All rights reserved.
13
14     Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
15
16     PS D:\COMPILER DESIGN LAB> cd "D:\COMPILER DESIGN LAB\"; if ($?) { gcc 9-identifier.c -o 9-identifier }; if ($?) { .\9-identifier }
17
18 Enter the String: jag
19 Input string is a valid identifier
20 PS D:\COMPILER DESIGN LAB> cd "D:\COMPILER DESIGN LAB\"; if ($?) { gcc 9-identifier.c -o 9-identifier }; if ($?) { .\9-identifier }
21
22 Enter the String: $
23 Input string is a valid identifier
24 PS D:\COMPILER DESIGN LAB> cd "D:\COMPILER DESIGN LAB\"; if ($?) { gcc 9-identifier.c -o 9-identifier }; if ($?) { .\9-identifier }
25
26 Enter the String: @
27 Input string is a valid identifier
28 PS D:\COMPILER DESIGN LAB> cd "D:\COMPILER DESIGN LAB\"; if ($?) { gcc 9-identifier.c -o 9-identifier }; if ($?) { .\9-identifier }
29
30 Enter the String: 123
31 Input string is not a valid identifier
32 PS D:\COMPILER DESIGN LAB>
```