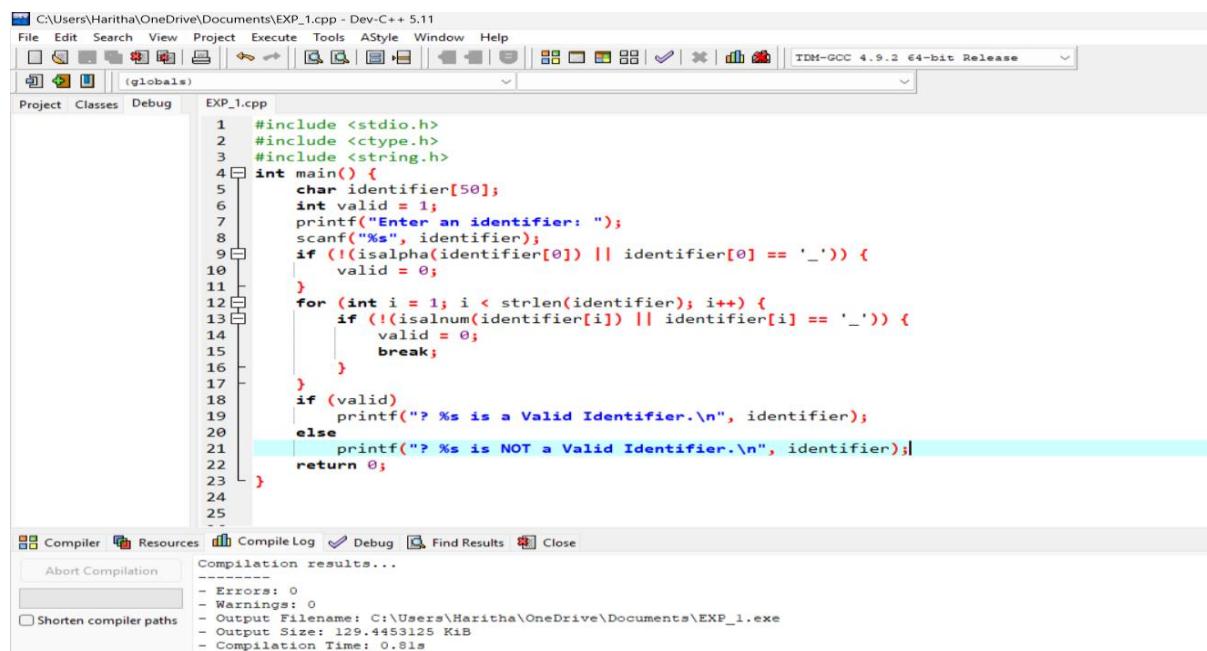


EXPERIMENT-6

AIM:

Develop a lexical Analyzer to test whether a given identifier is valid or not using C.

PROGRAM:

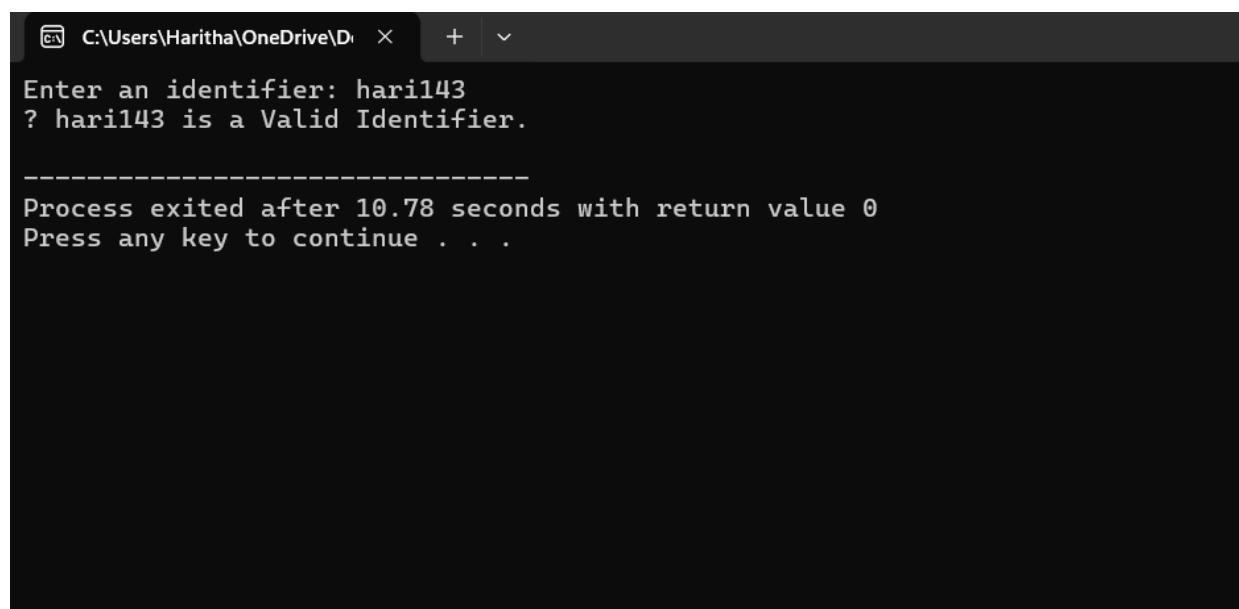


The screenshot shows the Dev-C++ IDE interface. The top menu bar includes File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help, and TDM-GCC 4.9.2 64-bit Release. The main window displays the code for EXP_1.cpp. The code checks if a given identifier is valid based on specific rules. The code is as follows:

```
1 #include <stdio.h>
2 #include <ctype.h>
3 #include <string.h>
4 int main() {
5     char identifier[50];
6     int valid = 1;
7     printf("Enter an identifier: ");
8     scanf("%s", identifier);
9     if (!(isalpha(identifier[0]) || identifier[0] == '_')) {
10         valid = 0;
11     }
12     for (int i = 1; i < strlen(identifier); i++) {
13         if (!(isalnum(identifier[i]) || identifier[i] == '_')) {
14             valid = 0;
15             break;
16         }
17     }
18     if (valid)
19         printf("? %s is a Valid Identifier.\n", identifier);
20     else
21         printf("? %s is NOT a Valid Identifier.\n", identifier);
22     return 0;
23 }
```

The status bar at the bottom shows compilation results: Errors: 0, Warnings: 0, Output Filename: C:\Users\Haritha\OneDrive\Documents\EXP_1.exe, Output Size: 129.4453125 KB, Compilation Time: 0.81s.

OUTPUT:



The screenshot shows a terminal window with the following output:

```
C:\Users\Haritha\OneDrive\Documents> Enter an identifier: hari143
? hari143 is a Valid Identifier.

-----
Process exited after 10.78 seconds with return value 0
Press any key to continue . . .
```