

DECIMAL TO OCTAL CONVERSION

EXP NO: 29

AIM: To write a C program to implement decimal to octal conversion.

ALGORITHM:

1. Start from the decimal number.
2. Divide the number by 8 and keep track of the remainder.
3. The remainder gives the octal equivalent for that digit.
4. Repeat the division by 8 until the quotient becomes 0.
5. Write the remainders in reverse order to get the octal number.

PROGRAM:

```
#include <stdio.h>

int main() {

    int n;

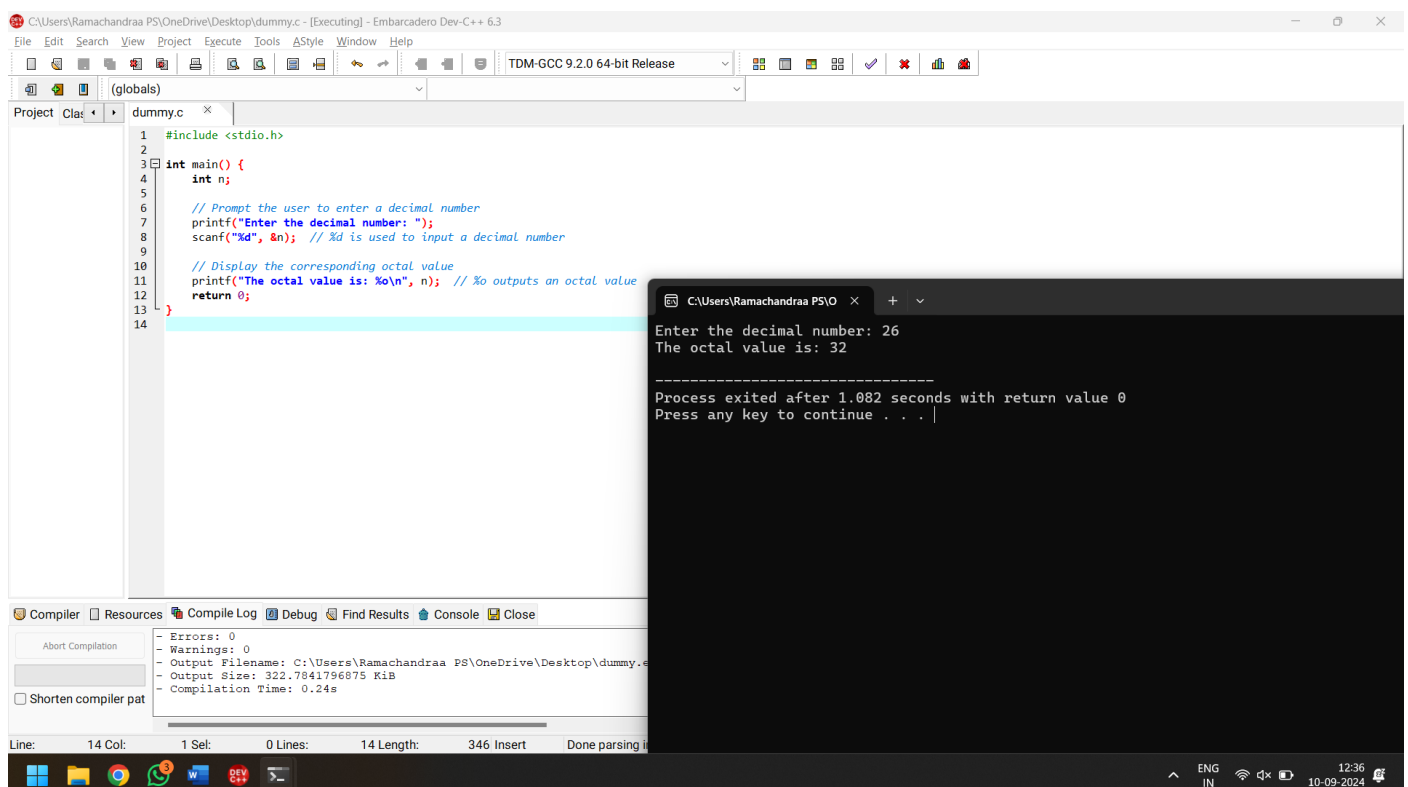
    // Prompt the user to enter a decimal number
    printf("Enter the decimal number: ");

    scanf("%d", &n); // %d is used to input a decimal number

    // Display the corresponding octal value
    printf("The octal value is: %o\n", n); // %o outputs an octal value

    return 0;
}
```

INPUT & OUTPUT:



The screenshot shows the Embarcadero Dev-C++ 6.3 IDE. The main window displays the C program code for decimal to octal conversion. The code prompts the user to enter a decimal number, reads the input (26), and prints the corresponding octal value (32). The console window shows the execution output: "Enter the decimal number: 26" and "The octal value is: 32". Below the console, the compiler output shows 0 errors and 0 warnings. The status bar at the bottom indicates the current line and column.

```
1 #include <stdio.h>
2
3 int main() {
4     int n;
5
6     // Prompt the user to enter a decimal number
7     printf("Enter the decimal number: ");
8     scanf("%d", &n); // %d is used to input a decimal number
9
10    // Display the corresponding octal value
11    printf("The octal value is: %o\n", n); // %o outputs an octal value
12    return 0;
13 }
14
```

Enter the decimal number: 26
The octal value is: 32

Process exited after 1.082 seconds with return value 0
Press any key to continue . . .

Compiler: 0 Errors, 0 Warnings
Output Filename: C:\Users\Ramachandras PS\OneDrive\Desktop\dummy.c
Output Size: 322.7841796875 KiB
Compilation Time: 0.24s

RESULT: Thus, the program was executed successfully using DevC++.