

## DECIMAL TO HEXADECIMAL CONVERSION

EXP NO: 28

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

### ALGORITHM:

1. Start from the decimal number.
2. Divide the number by 16 and keep track of the remainder.
3. The remainder gives the hexadecimal equivalent for that digit. (0=0, 1=1, 2=2, ... 9=9, 10=A, 11=B, 12=C, 13=D, 14=E, 15=F)
4. Repeat the division by 16 until the quotient becomes 0.
5. Write the remainders in reverse order to get the hexadecimal 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

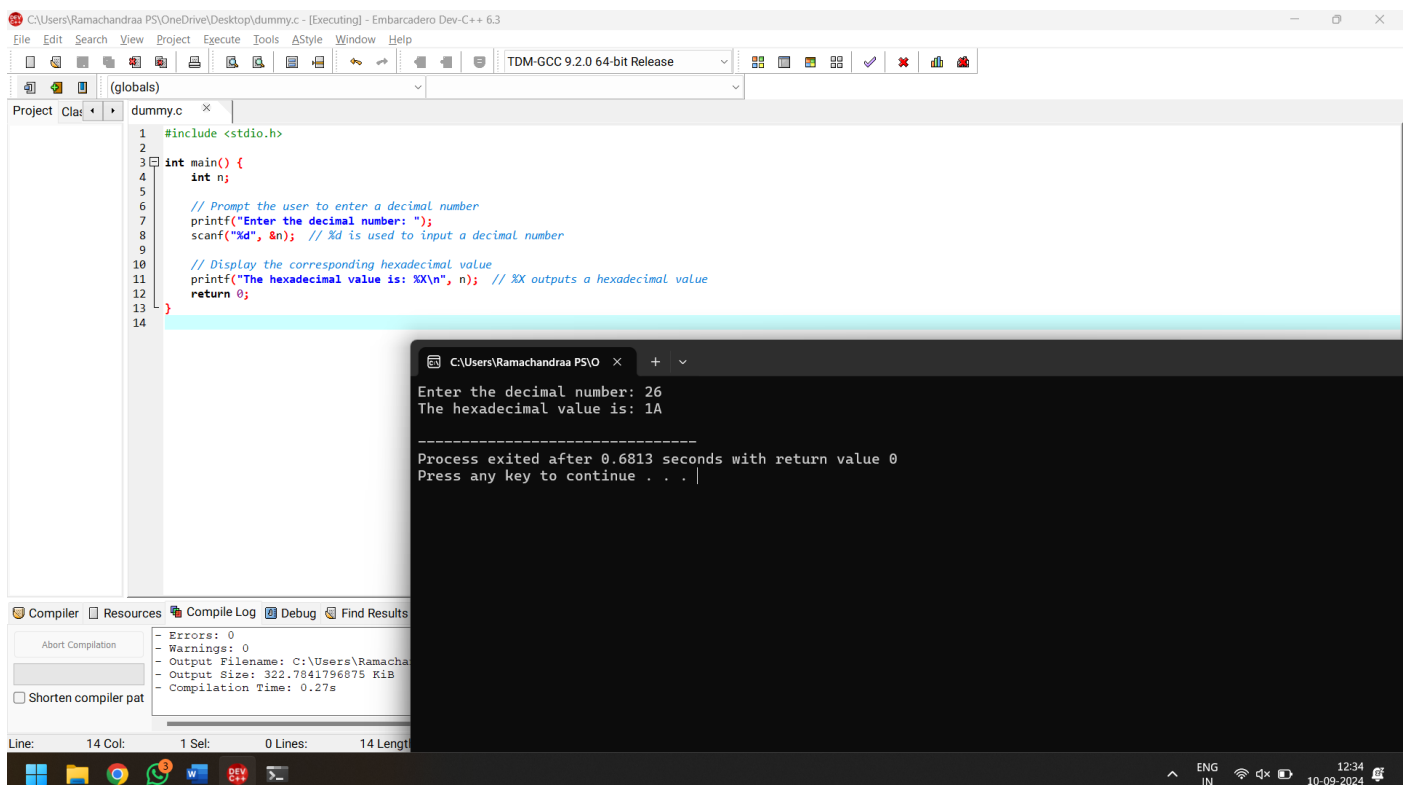
    // Display the corresponding hexadecimal value

    printf("The hexadecimal value is: %X\n", n); // %X outputs a hexadecimal value

    return 0;

}
```

### INPUT & OUTPUT:



```
C:\Users\Ramachandras PS\OneDrive\Desktop\dummy.c - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2.0 64-bit Release
(globals)
Project Class dummy.c
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 hexadecimal value
11    printf("The hexadecimal value is: %X\n", n); // %X outputs a hexadecimal value
12    return 0;
13 }
14

Compiler Resources Compile Log Debug Find Results
Abort Compilation
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Ramacha
- Output Size: 322.7841796875 KiB
- Compilation Time: 0.27s
Shorten compiler pat
Line: 14 Col: 1 Sel: 0 Lines: 14 Length: 14
```

```
C:\Users\Ramachandras PS\O x + v
Enter the decimal number: 26
The hexadecimal value is: 1A

-----
Process exited after 0.6813 seconds with return value 0
Press any key to continue . . . |
```

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