OCTAL TO DECIMAL CONVERSION

EXP NO: 30

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

ALGORITHM:

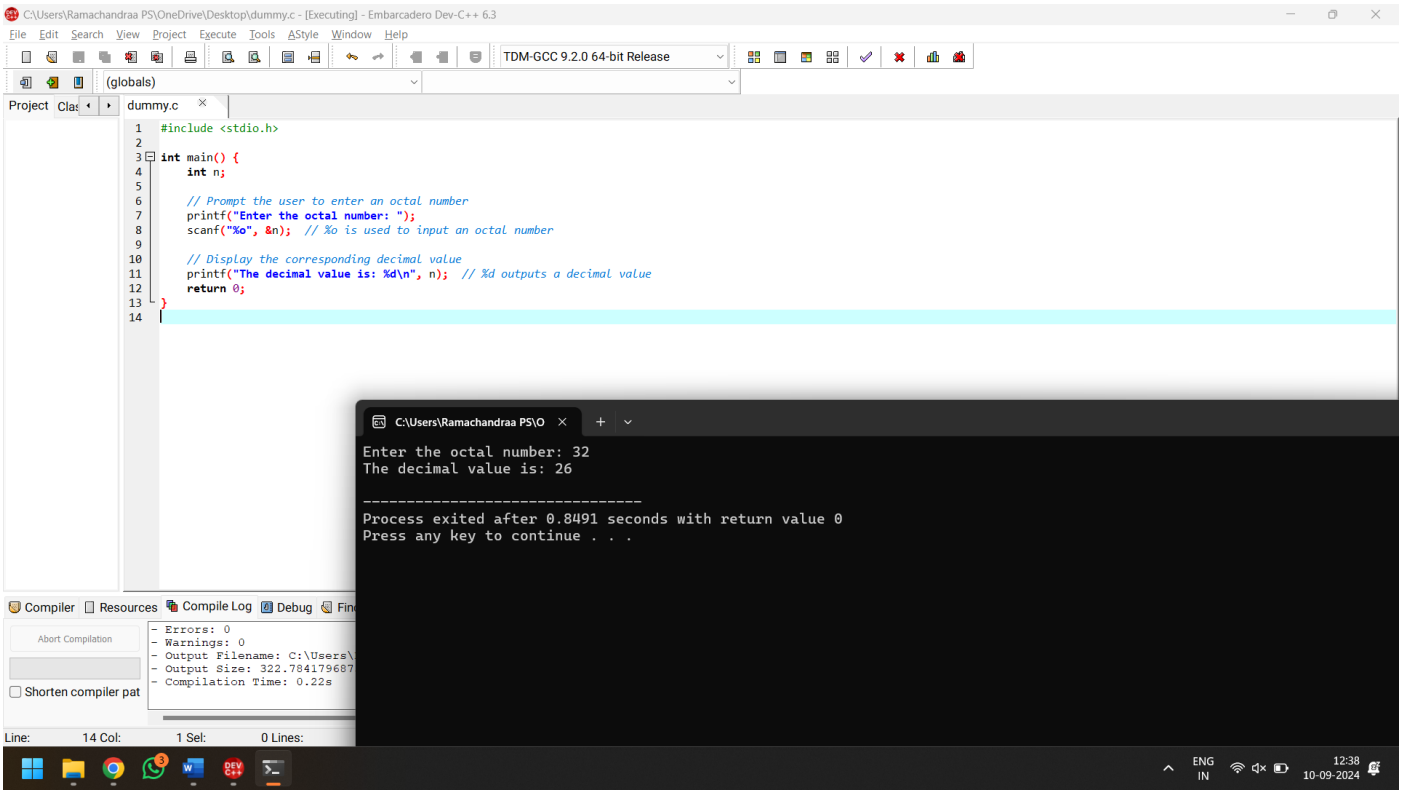
1. Start from the right-most digit of the octal number.
2. Multiply the digit by its positional weight, where the weight is a power of 8.
3. Add the result to the decimal equivalent.
4. Move one digit to the left and repeat the process with the next positional weight (8, 64, 512, etc.).
5. Continue until all digits are processed.

PROGRAM:

```
#include <stdio.h>

int main() {
   int n;
   // Prompt the user to enter an octal number
   printf("Enter the octal number: ");
   scanf("%o", &n);  // %o is used to input an octal number
   // Display the corresponding decimal value
   printf("The decimal value is: %d\n", n);  // %d outputs a decimal value
   return 0;
}
```

INPUT & OUTPUT:



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