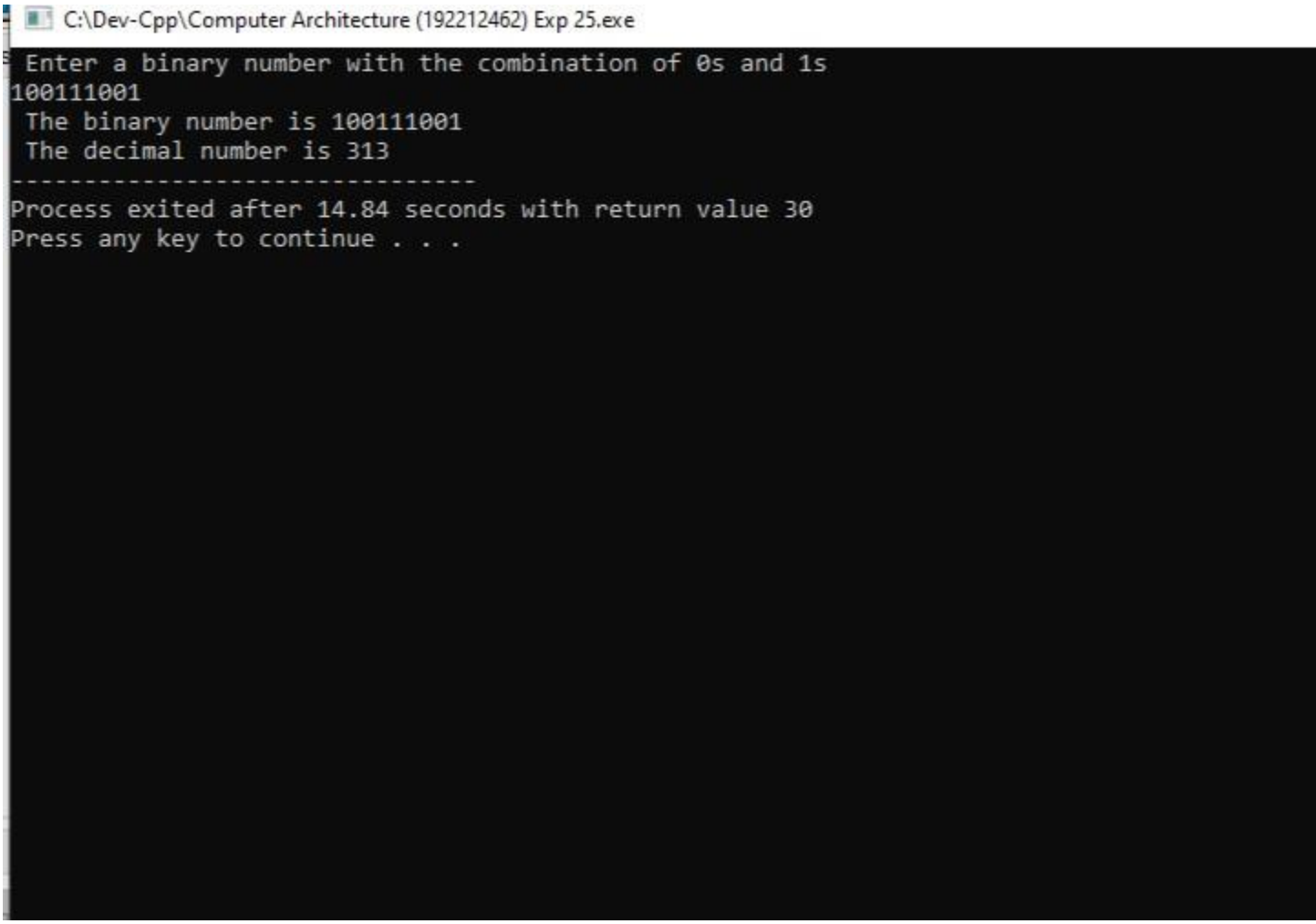
BINARY TO DECIMAL CONVERSION
EXP NO: 26
AIM: To write a C program to implement binary to decimal conversion.
ALGORITHM:
1) Start
2) Read the binary number from the user, say ‘n’
3) Initialize the decimal number, d=0
4) Initialize i=0
5) Repeat while n != 0:
i. Extract the last digit by: remainder = n % 10
ii. n = n/10
iii. d = d + (remainder * 2ⁱ)
iv. Increment i by 1
6) Display the decimal number, d
7) Stop
PROGRAM:

```
#include <stdio.h>
void
main()
{
   int num, binary_num, decimal_num = 0, base
= 1, rem;
   printf (" Enter a binary number with the combination of 0s and 1s \n");
   scanf (" %d", &num);
   binary_num = num;
   while ( num > 0)
 {
       rem = num % 10;
       decimal_num = decimal_num + rem *
base;
       num = num / 10;
       base = base * 2;
   }
printf ( " The binary number is %d \t", binary_num);
   printf (" \n The decimal number is %d \t", decimal_num);
}
```

INPUT & OUTPUT:



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