**1. Problem name:** Write a C program to find maximum between two numbers using if else. C program to input two numbers from user and find maximum between two numbers using if else. How to find maximum or minimum between two numbers using if else in C programming.

**Source Code**:

```c
#include<stdio.h>
int main ()
{
  int num1=10,num2=20;
  if(num1>num2)
      printf("Maximum =%d",num1);
  else
   printf("Maximum =%d",num2);


  return 0;
}
```

**Output**:

```
Maximum =20
Process returned 0 (0x0)   execution time : 0.081 s
Press any key to continue.
```
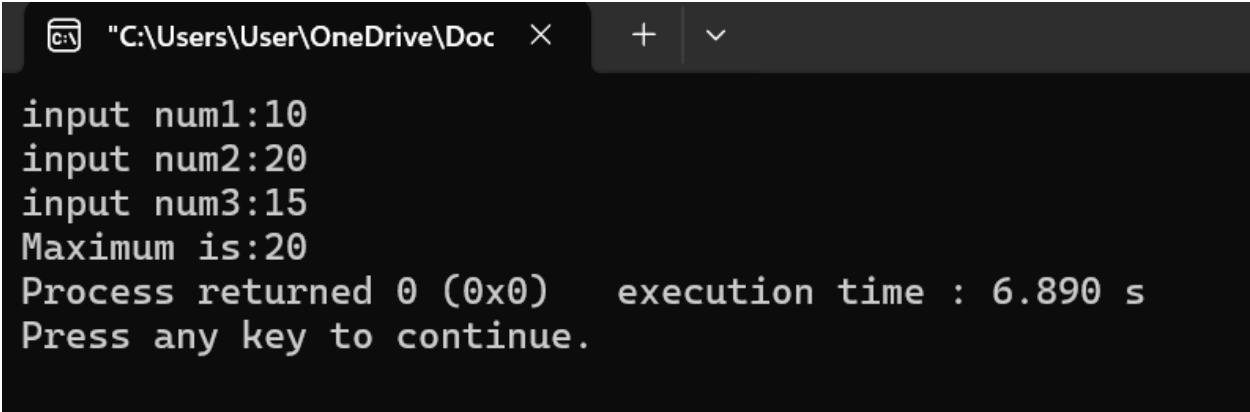
**2. Problem name:** Write a C program to find maximum between three numbers using ladder if else or nested if. How to find maximum or minimum between three numbers using if else in C programming. Logic to find maximum or minimum between three numbers in C program.

**Source Code** :

```c
#include<stdio.h>
int main (){
  int num1,num2,num3;
  printf("input num1:");
  scanf("%d",&num1);
  printf("input num2:");
  scanf("%d",&num2);
  printf("input num3:");
  scanf("%d",&num3);
  if(num1>num2 && num1>num3)
     printf("Maximum is:%d",num1);
  else if(num2>num1 && num2>num3)
   printf("Maximum is:%d",num2);
   else
     printf("Maximum is:%d",num3);
  return 0;
}
```

**Output :**

```
"C:\Users\User\OneDrive\Doc  ✕      +   ∨

input num1:10
input num2:20
input num3:15
Maximum is:20
Process returned 0 (0x0)    execution time : 6.890 s
Press any key to continue.
```

**Problem name :** Write a C program to check positive, negative or zero using simple if or if else. C program to input any number from user and check whether the given number is positive, negative or zero. Logic to check negative, positive or zero in C programming.
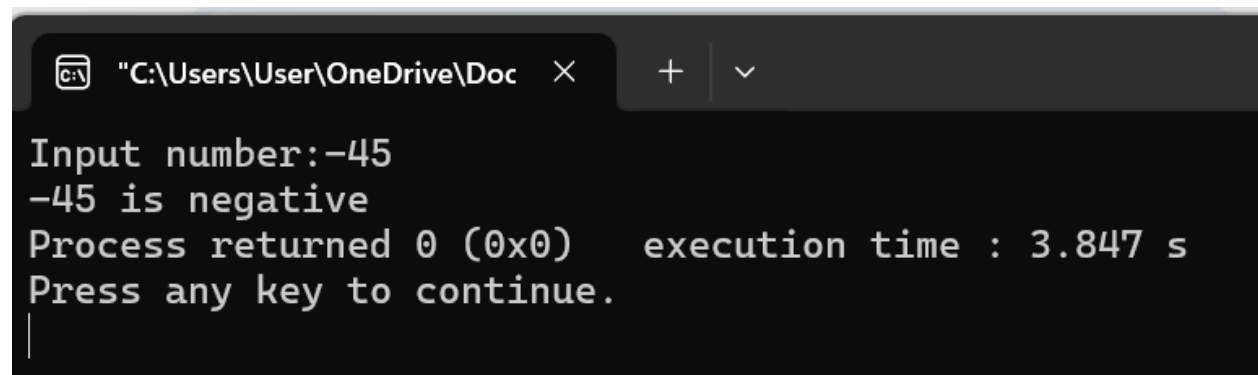
**Source Code :**

```c
#include<stdio.h>

int main ()

{

  int num;

  printf("Input number:");

  scanf("%d",&num);

  if(num>0)

      printf("%d is Positive",num);

  else if(num==0)

   printf("%d is zero",num);

   else

      printf("%d is negative",num);

  return 0;

}
```

**Output :**

```
"C:\Users\User\OneDrive\Doc  ×    +   ∨

Input number:-45
-45 is negative
Process returned 0 (0x0)    execution time : 3.847 s
Press any key to continue.
```

**Problem name**: Write a C program to check whether a number is divisible by 5 and 11 or not using if else. How to check divisibility of any number in C programming. C program to enter any number and check whether it is divisible by 5 and 11 or not. Logic to check divisibility of a number in C program.
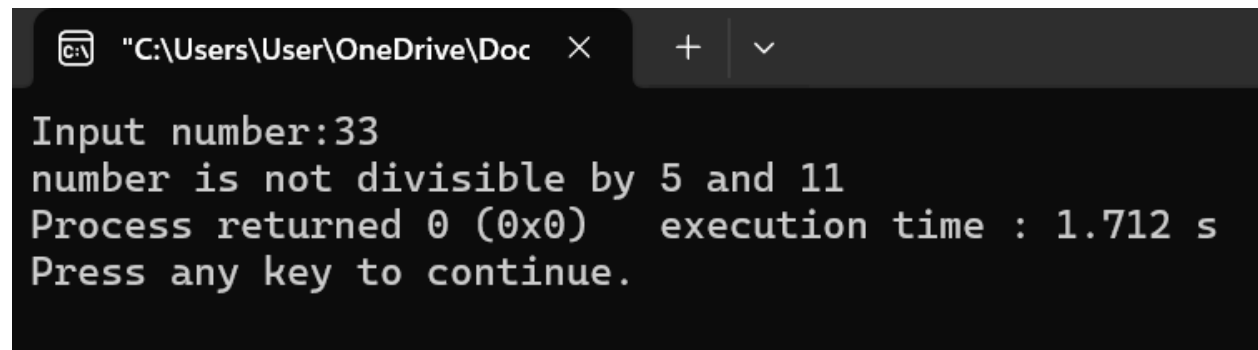
**Source code** :

```c
#include<stdio.h>
int main ()
{
  int num;
  printf("Input number:");
  scanf("%d",&num);
  if(num%5==0 && num%11==0)
     printf("number is divisible by 5 and 11");
  else
   printf("number is not divisible by 5 and 11");
  return 0;
}
```

**Output** :

```
"C:\Users\User\OneDrive\Doc   X    +    v

Input number:33
number is not divisible by 5 and 11
Process returned 0 (0x0)    execution time : 1.712 s
Press any key to continue.
```

**Problem name** : Write a C program to check whether a number is even or odd using if else. How to check whether a number is even or odd using if else in C program. C Program to input a number from user and check whether the given number is even or odd. Logic to check even and odd number using if...else in C programming.**.**

**Source Code :**

```c
#include<stdio.h>

int main ()

{
  int num;

  printf("Input number:");

  scanf("%d",&num);

  if(num%2==0)

      printf("%d is even number",num);

  else

   printf("%d is odd number",num);


  return 0;
}
```
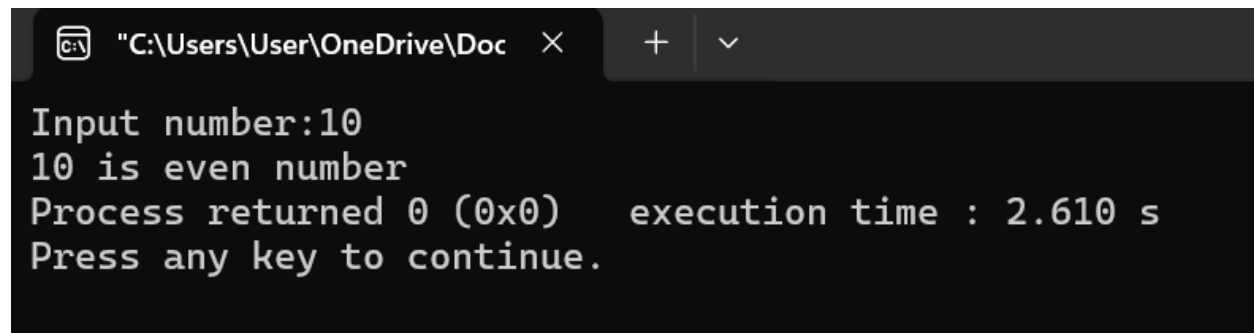
**Output** :

```
"C:\Users\User\OneDrive\Doc  ×     +   ∨

Input number:10
10 is even number
Process returned 0 (0x0)    execution time : 2.610 s
Press any key to continue.
```

**Problem name :** Write a C program to check leap year using if else. How to check whether a given year is leap year or not in C programming. C Program to input year from user and check whether the given year is leap year or not using ladder if else. Logic to check leap year in C programming..
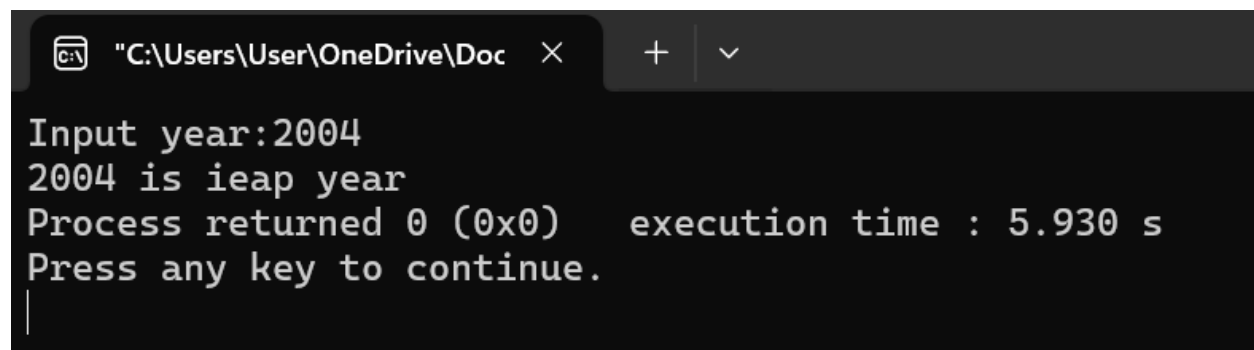
**Source Code** :

```c
#include<stdio.h>
int main ()
{
    int year;
    printf("Input year:");
    scanf("%d",&year);
    if((year%4==0) &&(year%400==0) || (year%100!=0))
        printf("%d is ieap year",year);
    else
        printf("%d is not ieap year",year);

    return 0;
}
```

**Output** :



```
Input year:2004
2004 is ieap year
Process returned 0 (0x0)   execution time : 5.930 s
Press any key to continue.
```

**Problem name:** Write a C program to input a character from user and check whether the given character is alphabet or not using if else. How to check whether a character is alphabet or not in C programming. Logic to check if a character is alphabet or not in C program
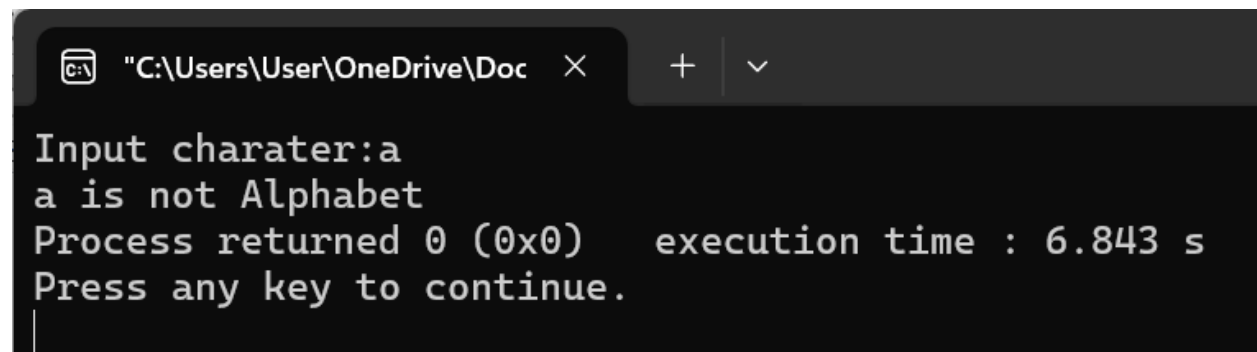
**Source Code :**

```c
#include<stdio.h>
int main ()
{
  char ch;
  printf("Input charater:");
  scanf("%c",&ch);
  if((ch=='A' && ch=='Z' ) || (ch=='a') && (ch=='z') )
     printf("%c is Alphabet",ch);
  else
   printf("%c is not Alphabet",ch);
  return 0;
}
```

**Output :**

```
"C:\Users\User\OneDrive\Doc   ×    +   ∨
Input charater:a
a is not Alphabet
Process returned 0 (0x0)    execution time : 6.843 s
Press any key to continue.
```

**Problem name** : Write a C program to check whether an alphabet is vowel or consonant using if else. How to check vowels and consonants using if else in C programming. C Program to input a character from user and check whether it is vowel or consonant. Logic to check vowel or consonant in C programming.**.**

**Source Code** :

#include<stdio.h>

int main ()

{

  char ch;

  printf("Input charater:");

  scanf("%c",&ch);

  if( (ch=='a' || ch=='e' || ch=='i' || ch=='u' || ch=='o' || ch=='A' || ch=='O' || ch=='I' || ch=='E' || ch=='U' ) )

    printf("%c is a vawel",ch);

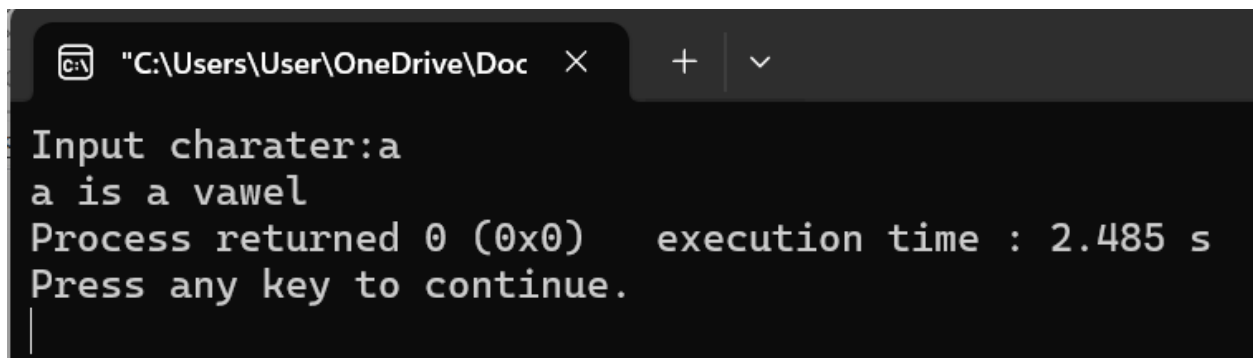  else if((ch>='A' && ch=='Z') || (ch=='a' && ch=='z' ))

   printf("%c is a consonant",ch);


    else

    printf("is not alphabet");


  return 0;

}

**Output :**

**Problem name** : Write a C program to input a character from user and check whether given character is alphabet, digit or special character using if else. How to check if a character is alphabet, digits or any other special character using if else in C programming. Logic to check alphabet, digit or special character in C programming.

**Source Code**:

```c
#include<stdio.h>
int main ()
{
  char ch;
  printf("Input any character:");
  scanf("%c",&ch);
  if((ch>='A' && ch<='Z') || (ch>='a' && ch<='z'))
   printf("%c is alphaber",ch);
  else if(ch>='0' && ch<='9')
   printf("%c is digit",ch);
  else
   printf("Nathing");


  return 0;
}
```
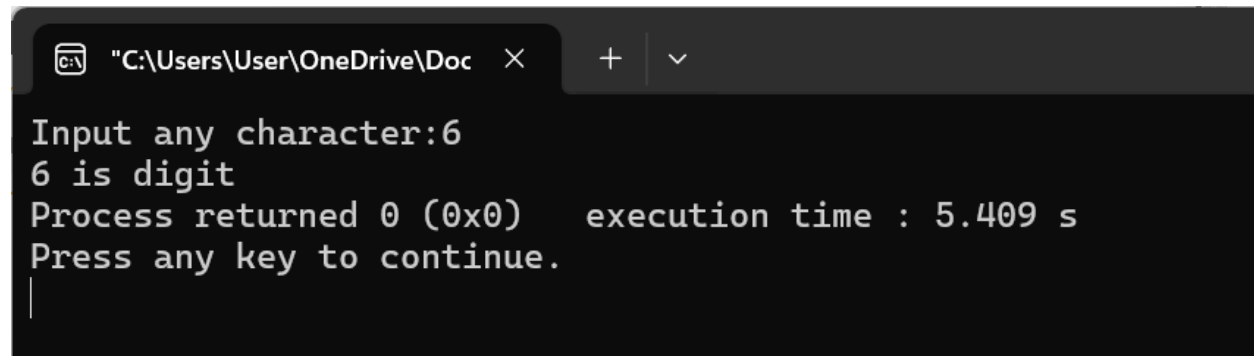
**Output :**



```
Input any character:6
6 is digit
Process returned 0 (0x0)   execution time : 5.409 s
Press any key to continue.
```

**Problem name** : Write a C program to input character from user and check whether character is uppercase or lowercase alphabet using if else. How to check uppercase and lowercase using if else in C programming. Logic to check uppercase and lowercase alphabets in C program.

Source Code :

```c
#include<stdio.h>

int main ()
{
  char ch;
  printf("Input any character:");
  scanf("%c",&ch);
  if (ch >= 'A' && ch<= 'Z')
   printf("%c is Uppercase alphadet",ch);
  else if(ch >= 'a' && ch<= 'z')
   printf("%c is lowercase",ch);
  else
   printf("not");
  return 0;
}
```
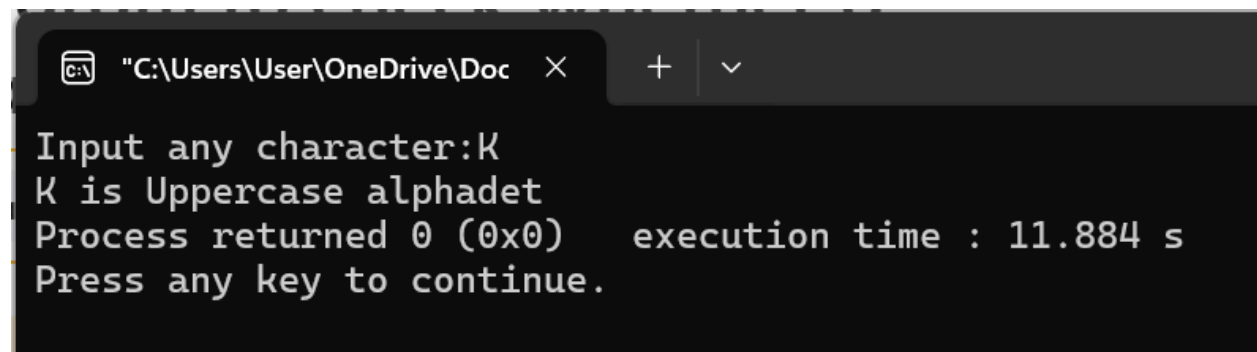
**Output** :

**Problem name** : Write a C program to input week number(1-7) and print the corresponding day of week name using if else. How to print day of week using if else in C programming. Logic to convert week number to day of week in C programming.

**Source Code :**

```c
#include<stdio.h>
int main () {   int w;
   printf("Input week numbe:");
   scanf("%d",&w);
   if (w==1)
     printf("Monday");
     else if(w==2)
        printf("thesday");
     else if(w==3)
        printf("Wednesday");
     else if(w==4)
        printf("Thursday");
     else if(w==5)
        printf("Friday");
     else if(w==6)
        printf("Saturday");
     else if(w==7)
        printf("Sunday");
     else
        printf("not");
   return 0;}
```

**Output:**

```
"C:\Users\User\OneDrive\Doc  ☓    +    ∨

Input week numbe:5
Friday
Process returned 0 (0x0)    execution time : 2.387 s
Press any key to continue.
```

**Problem name** : Write a C program to find all roots of a quadratic equation using if else. How to find all roots of a quadratic equation using if else in C programming. Logic to find roots of quadratic equation in C programming.

**Source**:

```c
#include <stdio.h>
#include <math.h>

int main()
{
    float x, y, z;
    float root1, root2, imaginary;
    float D;

    printf("Input x:");
    scanf("%f",&x);
     printf("Input y:");
    scanf("%f",&y);
     printf("Input z:");
    scanf("%f",&z);
    D = (y * y) - (4 * x * z);

    if(D > 0)
    {
        root1 = (-y + sqrt(D)) / (2*x);
        root2 = (-y - sqrt(D)) / (2*x);

        printf("Two distinct and real roots exists: %.2f and %.2f", root1, root2);
```
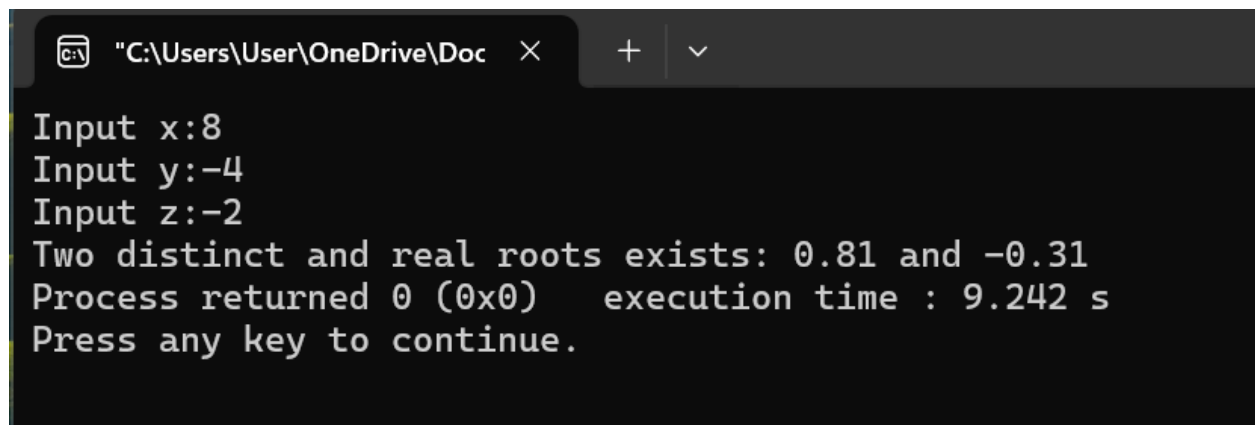
```
    }
    else if(D == 0)
    {
        root1 = root2 = -y / (2 * x);

        printf("Two equal and real roots exists: %.2f and %.2f", root1, root2);
    }
    else if(D< 0)
    {
        root1 = root2 = -y / (2 * x);
        imaginary = sqrt(-D) / (2 * x);

        printf("Two distinct complex roots exists: %.2f + i%.2f and %.2f - i%.2f",
            root1, imaginary, root2, imaginary);
    }
    return 0;
}
```

**Output :**



```
Input x:8
Input y:-4
Input z:-2
Two distinct and real roots exists: 0.81 and -0.31
Process returned 0 (0x0)   execution time : 9.242 s
Press any key to continue.
```
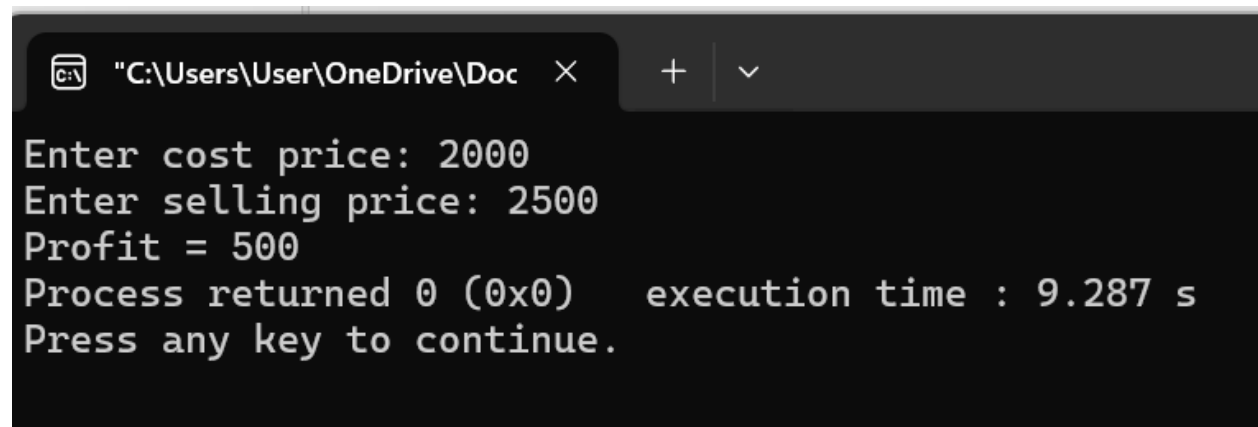
**Problem name**: Write a C program to input cost price and selling price of a product and check profit or loss. Also calculate total profit or loss using if else. How to calculate profit or loss on any product using if else in C programming. Program to calculate profit and loss of any product in C.

**Source Code**:

```c
#include <stdio.h>
int main()
{
    int cp,sp, amt;
    printf("Enter cost price: ");
    scanf("%d", &cp);
    printf("Enter selling price: ");
    scanf("%d", &sp);
    if(sp > cp)
    {
        amt = sp - cp;
        printf("Profit = %d", amt);
    }
    else if(cp > sp)
    {
        amt = cp - sp;
        printf("Loss = %d", amt);
    }
    else
        printf("No Profit No Loss.");
    return 0;
}
```

**Output:**

```
"C:\Users\User\OneDrive\Doc   X    +   v

Enter cost price: 2000
Enter selling price: 2500
Profit = 500
Process returned 0 (0x0)    execution time : 9.287 s
Press any key to continue.
```