Basic C Programs

1. C Program To Print Student Details

C:\Users\student\Desktop\cprograms.cpp - Dev-C++ 5.11

File   Edit   Search   View   Project   Execute   Tools   AStyle   Window   Help

(globals)

cbasics.cpp   cprograms.cpp

```c
#include<stdio.h>
#include<string.h>
int main()
{
//declaration of variable in integer
int id;
//declaration of variable in charecters
char Name[50], Department[50], Campus[50], University[50];
//to print name, student id, department, campus, university in output
    printf("Name:");
    scanf("%s", &Name);//%S to print name in charecter
    printf("Student id:");
    scanf("%d", &id);//%d is to print id in integer
    printf("Enter Department:");
    scanf("%s", &Department);
    printf("Enter Campus:");
    scanf("%s", &Campus);
    printf("Enter University:");
    scanf("%s", &University);
    printf("Name Of The Student Is:%s\n", Name);
    printf("ID Of The Student Is:%d\n", id);
    printf("Department Of The Student Is:%s\n", Department);
    printf("Campus Of The Student Is:%s\n", Campus);
    printf("University Of The Student Is:%s\n", University);
return 0;
}
```
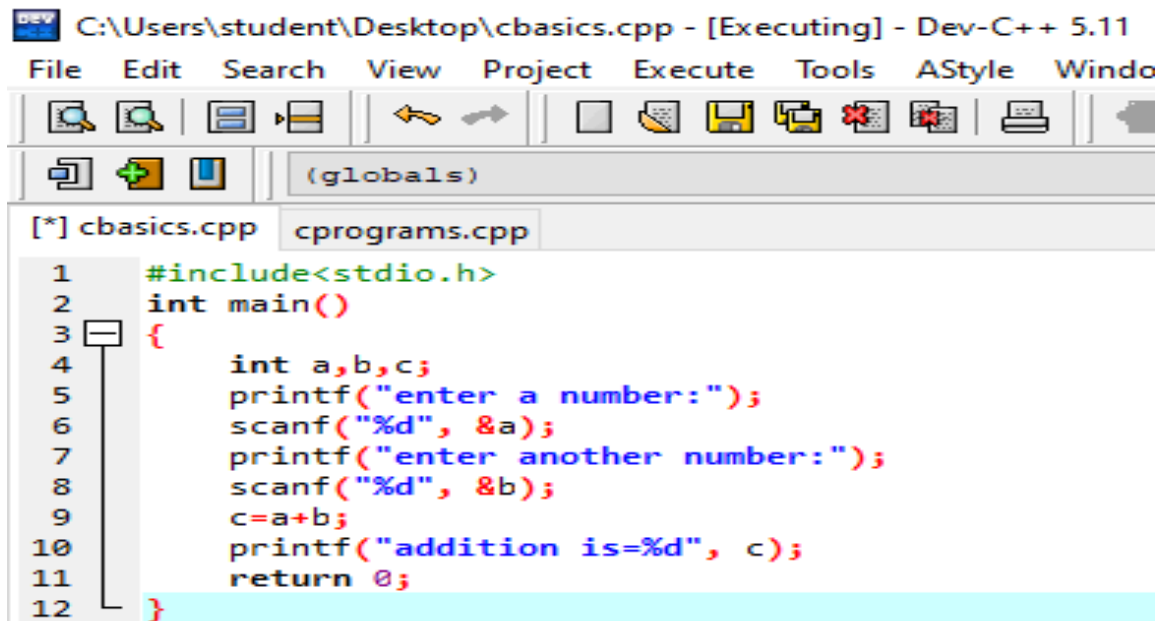
OUTPUT:

C:\Users\student\Desktop\cprograms.exe

```
Name:pooja
Student id:180866
Enter Department:cse
Enter Campus:sklm
Enter University:rgukt
Name Of The Student Is:pooja
ID Of The Student Is:180866
Department Of The Student Is:cse
Campus Of The Student Is:sklm
University Of The Student Is:rgukt


--------------------------------
Process exited after 18.72 seconds with return value 0
Press any key to continue . . .
```
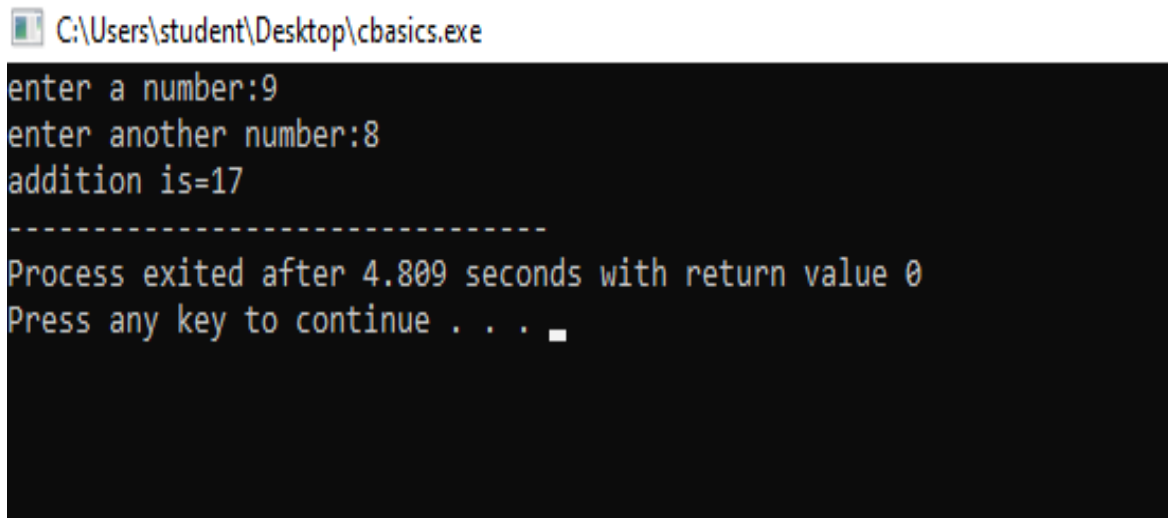
Basic C Programs

2. C Program for the Addition of two given numbers

C:\Users\student\Desktop\cbasics.cpp - [Executing] - Dev-C++ 5.11

File   Edit   Search   View   Project   Execute   Tools   AStyle   Windo

(globals)

[*] cbasics.cpp   cprograms.cpp

```c
1    #include<stdio.h>
2    int main()
3    {
4        int a,b,c;
5        printf("enter a number:");
6        scanf("%d", &a);
7        printf("enter another number:");
8        scanf("%d", &b);
9        c=a+b;
10        printf("addition is=%d", c);
11        return 0;
12    }
```

OUTPUT:

C:\Users\student\Desktop\cbasics.exe

```
enter a number:9
enter another number:8
addition is=17
---------------------------------
Process exited after 4.809 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

3. C Program for the Subtraction of two given numbers

```
[*] Untitled1   cprograms.cpp
1    //c program to print subtraction of two numbers
2    #include<stdio.h>
3    int main()
4    {
5    //declaration of variables
6    int a;
7    //to print subtraction of two numbers
8        printf("Enter an integer:");
9        scanf("%d",&a);
10       printf("you entered: %d", a);
11   return 0;
12   }
```
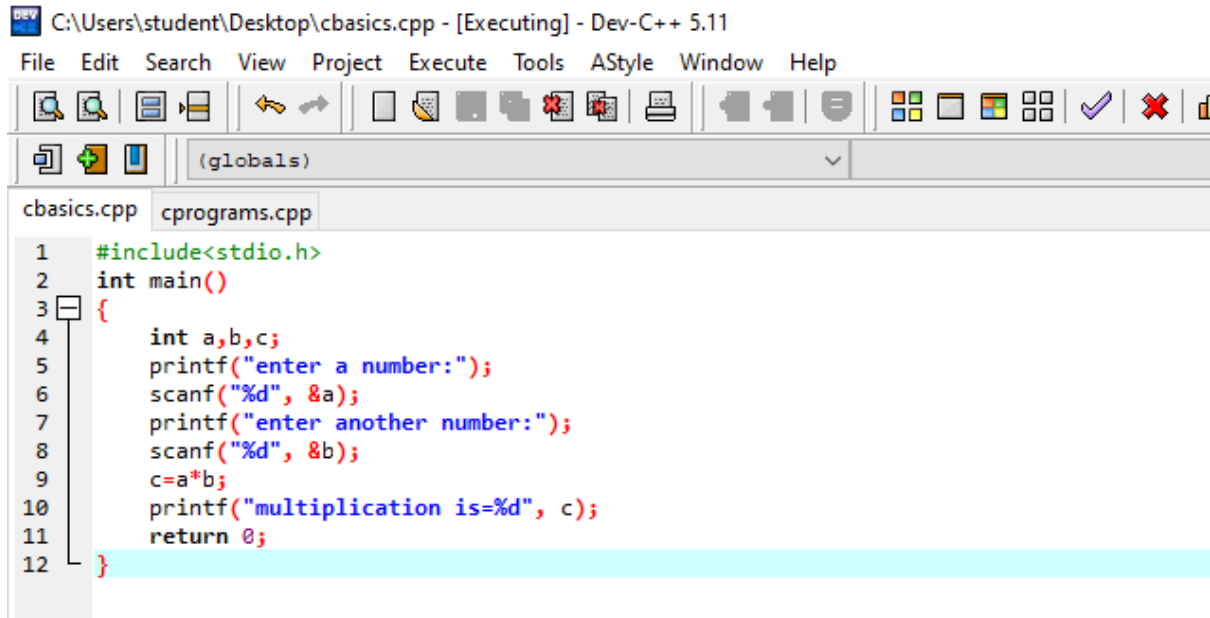
Output:

C:\Users\student\Desktop\cprograms.exe

```
enter a value:789
enter b value:456
subtraction=333
----------------------------------
Process exited after 4.992 seconds with return value 0
Press any key to continue . . .
```
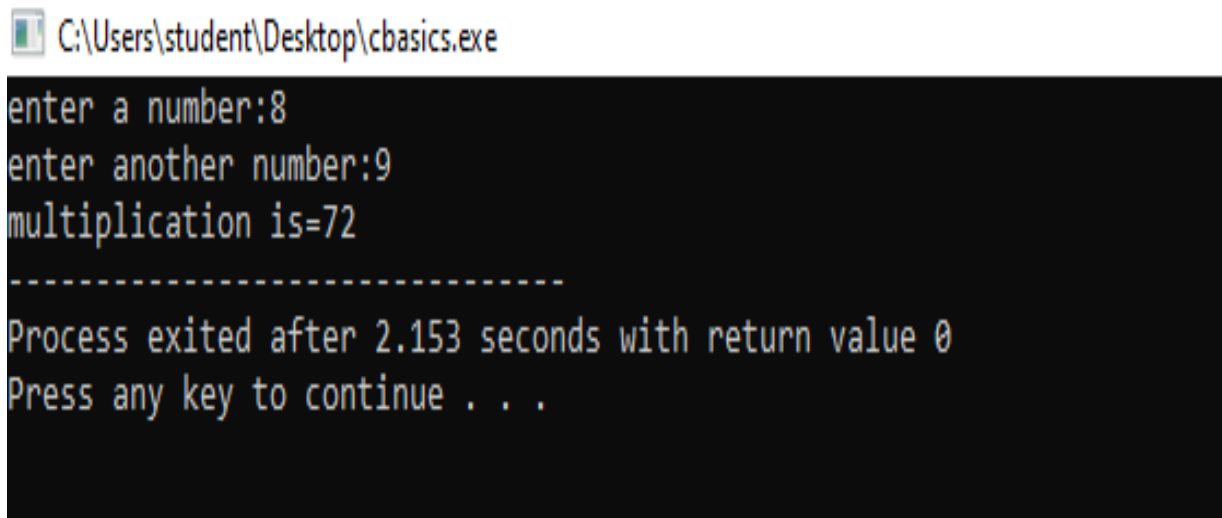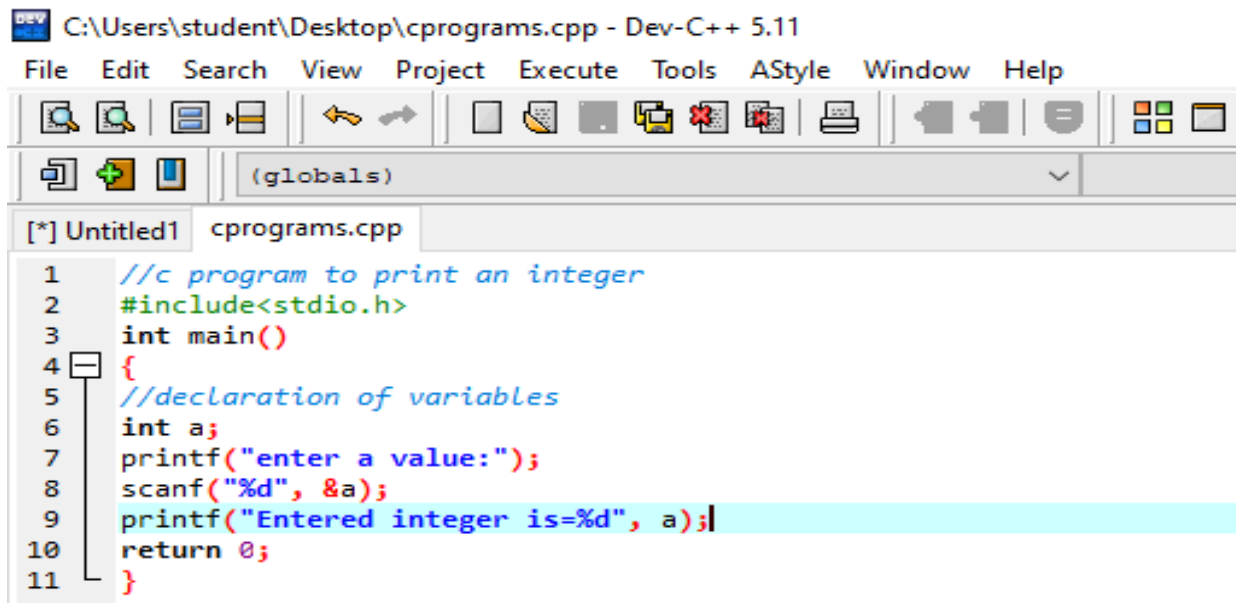
Basic C Programs

4. C Program for the Multiplication of two given numbers

C:\Users\student\Desktop\cbasics.cpp - [Executing] - Dev-C++ 5.11

File   Edit   Search   View   Project   Execute   Tools   AStyle   Window   Help

(globals)

cbasics.cpp   cprograms.cpp

```c
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("enter a number:");
    scanf("%d", &a);
    printf("enter another number:");
    scanf("%d", &b);
    c=a*b;
    printf("multiplication is=%d", c);
    return 0;
}
```

Output:

C:\Users\student\Desktop\cbasics.exe

```
enter a number:8
enter another number:9
multiplication is=72
----------------------------------
Process exited after 2.153 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

5. C Program to print an integer:
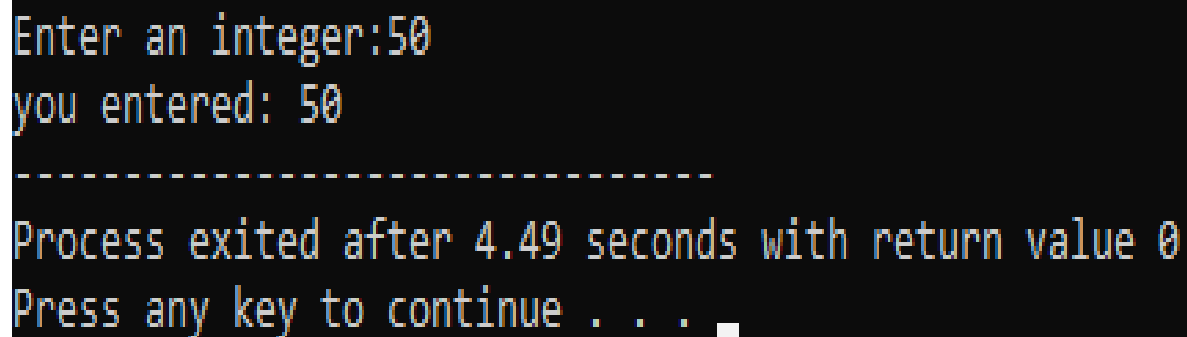
```c
//c program to print an integer
#include<stdio.h>
int main()
{
//declaration of variables
int a;
printf("enter a value:");
scanf("%d", &a);
printf("Entered integer is=%d", a);
return 0;
}
```

Output:

```
Enter an integer:50
you entered: 50
---------------------------------
Process exited after 4.49 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

6. C Program to print a float:

```
[*] Untitled1   [*] cprograms.cpp
1    //c program to print  float
2    #include<stdio.h>
3    int main()
4    {
5    //declaration of variables
6    float a;
7    //to print float variable
8        printf("Enter an float:");
9        scanf("%f",&a);
10       printf("you entered float: %f", a);
11   return 0;
12   }
```
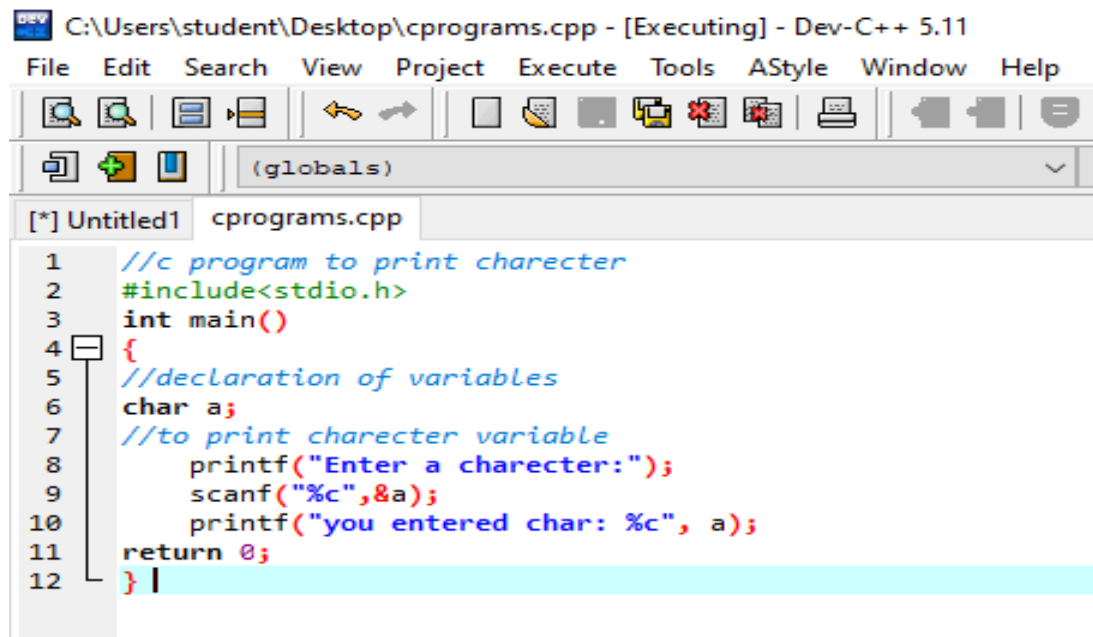
Output:

C:\Users\student\Desktop\cprograms.exe

```
Enter an float:9.4
you entered float: 9.400000
--------------------------------
Process exited after 3.466 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

7. C Program to print a Character:

Output:

Basic C Programs

8. C Program to print ASCII value of the given Character:

```c
1    //c program to print ASCII value of charecter
2    #include<stdio.h>
3    int main()
4    {
5    //declaration of variables
6    char c;
7    //to print ASCII value of charecter
8        printf("Enter a charecter:");
9        scanf("%c",&c);
10       printf("ASCII value of entered charecter of %c=%d",c,c);
11   return 0;
12   }
```

Output:

C:\Users\student\Desktop\cprograms.exe

```
Enter a charecter:r
ASCII value of entered charecter of r=114
-----------------------------------
Process exited after 1.91 seconds with return value 0
Press any key to continue . . .
```
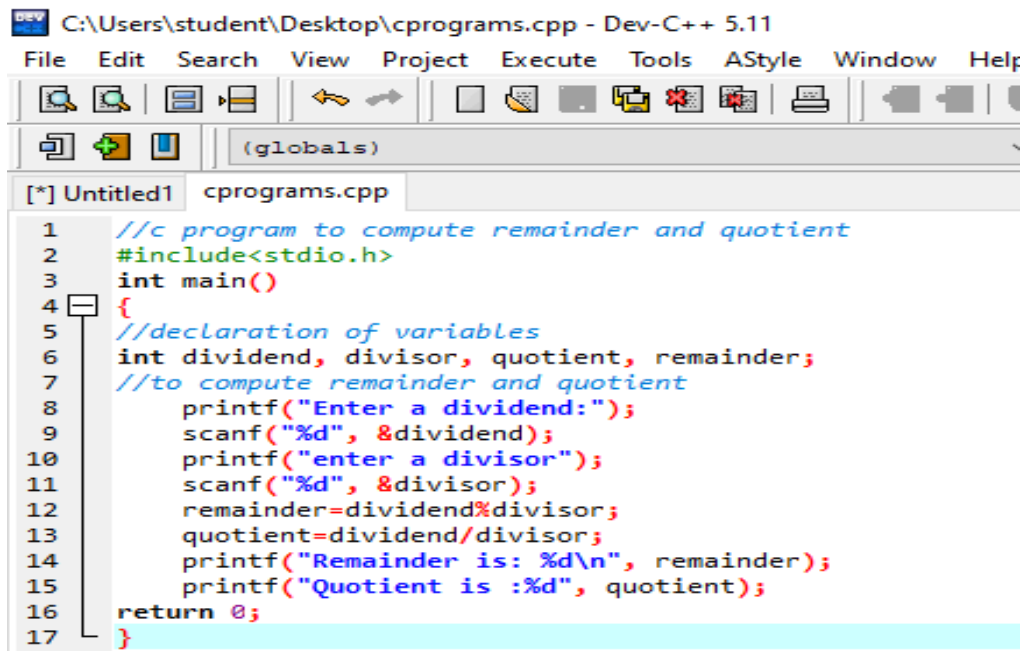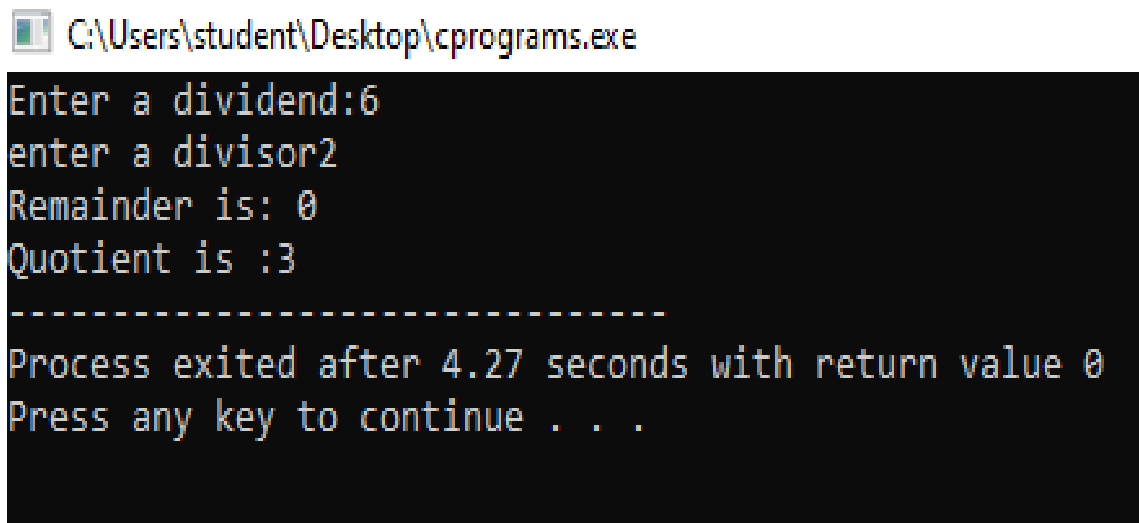
Basic C Programs

9. C Program to Compute remainder and Quotient:

```
C:\Users\student\Desktop\cprograms.cpp - Dev-C++ 5.11
File  Edit  Search  View  Project  Execute  Tools  AStyle  Window  Help

(globals)

[*] Untitled1    cprograms.cpp
1   //c program to compute remainder and quotient
2   #include<stdio.h>
3   int main()
4   {
5   //declaration of variables
6   int dividend, divisor, quotient, remainder;
7   //to compute remainder and quotient
8       printf("Enter a dividend:");
9       scanf("%d", &dividend);
10      printf("enter a divisor");
11      scanf("%d", &divisor);
12      remainder=dividend%divisor;
13      quotient=dividend/divisor;
14      printf("Remainder is: %d\n", remainder);
15      printf("Quotient is :%d", quotient);
16  return 0;
17  }
```
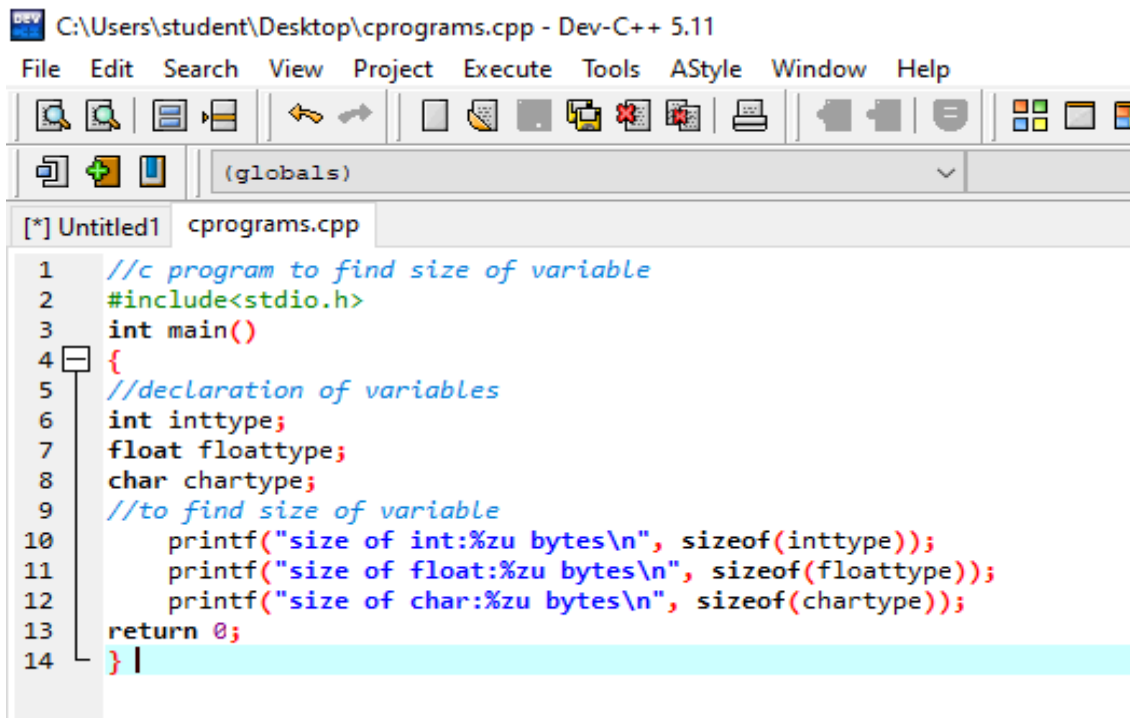
Output:

```
C:\Users\student\Desktop\cprograms.exe

Enter a dividend:6
enter a divisor2
Remainder is: 0
Quotient is :3
---------------------------------
Process exited after 4.27 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs
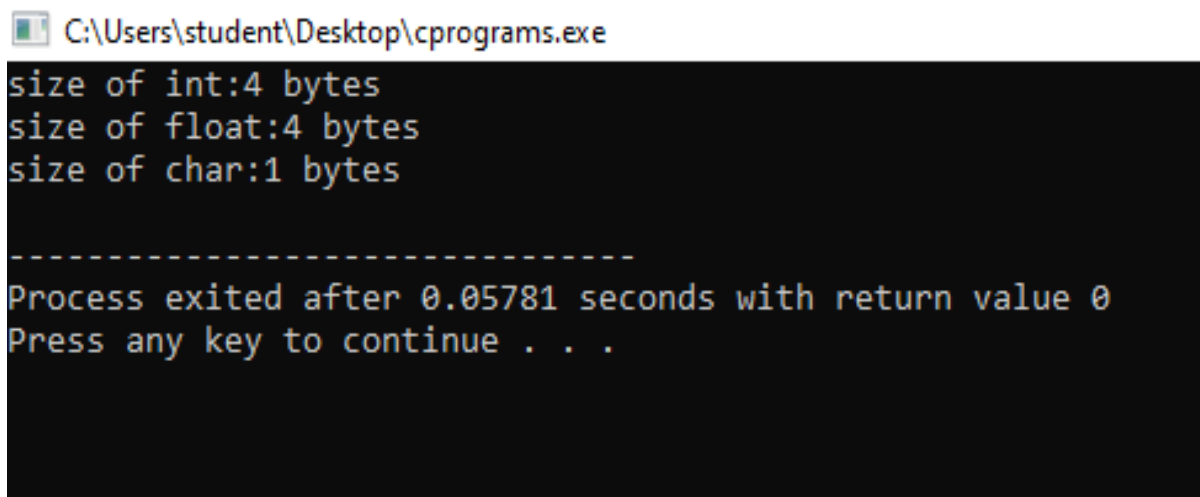
10. C Program to print Size of a Variable:


```c
//c program to find size of variable
#include<stdio.h>
int main()
{
//declaration of variables
int inttype;
float floattype;
char chartype;
//to find size of variable
    printf("size of int:%zu bytes\n", sizeof(inttype));
    printf("size of float:%zu bytes\n", sizeof(floattype));
    printf("size of char:%zu bytes\n", sizeof(chartype));
return 0;
}
```

Output:
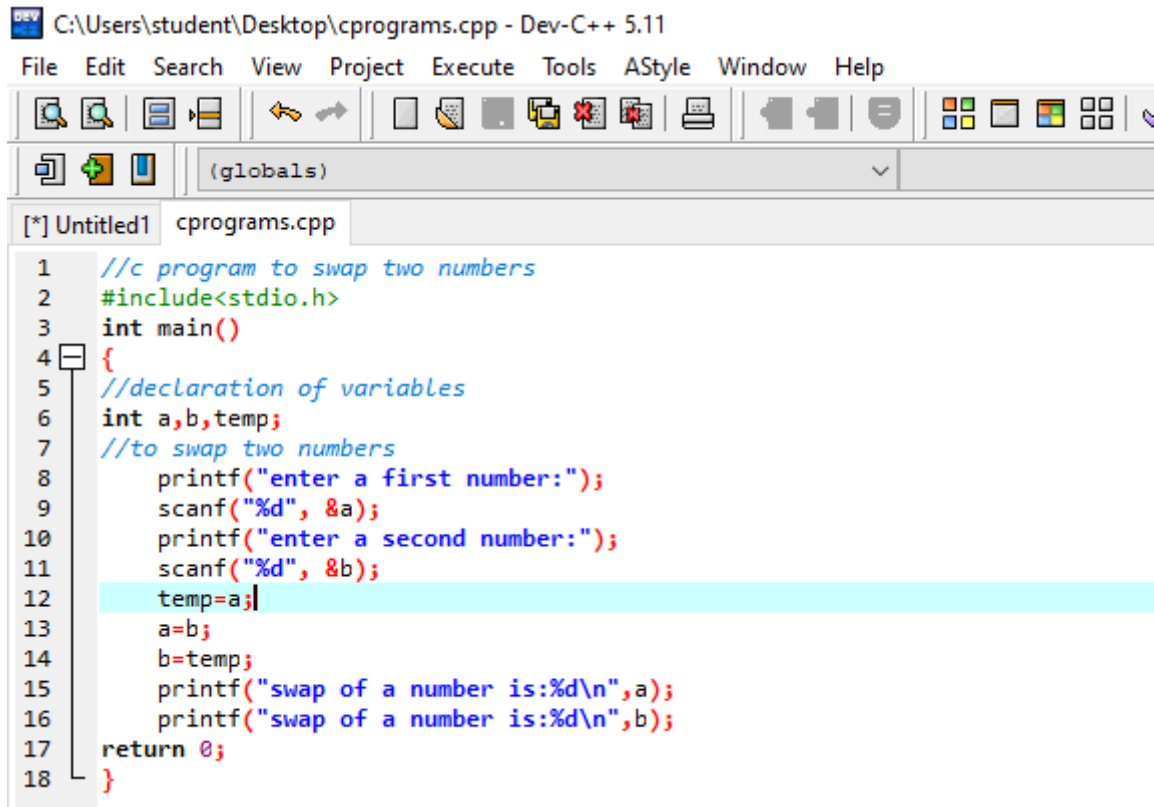


```
size of int:4 bytes
size of float:4 bytes
size of char:1 bytes


--------------------------------
Process exited after 0.05781 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

11. C Program to Swap two numbers:

```c
//c program to swap two numbers
#include<stdio.h>
int main()
{
//declaration of variables
int a,b,temp;
//to swap two numbers
    printf("enter a first number:");
    scanf("%d", &a);
    printf("enter a second number:");
    scanf("%d", &b);
    temp=a;
    a=b;
    b=temp;
    printf("swap of a number is:%d\n",a);
    printf("swap of a number is:%d\n",b);
return 0;
}
```

Output:

```
C:\Users\student\Desktop\cprograms.exe

enter a first number:5
enter a second number:6
swap of a number is:6
swap of a number is:5

----------------------------------
Process exited after 3.189 seconds with return value 0
Press any key to continue . . .
```
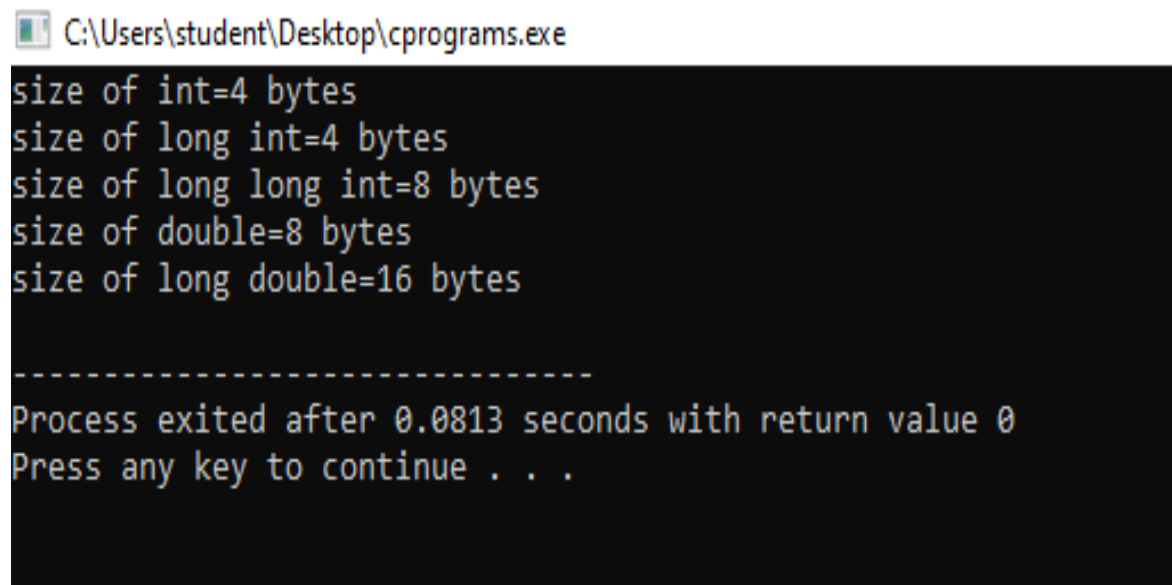
Basic C Programs

12. C Program using long keyword:
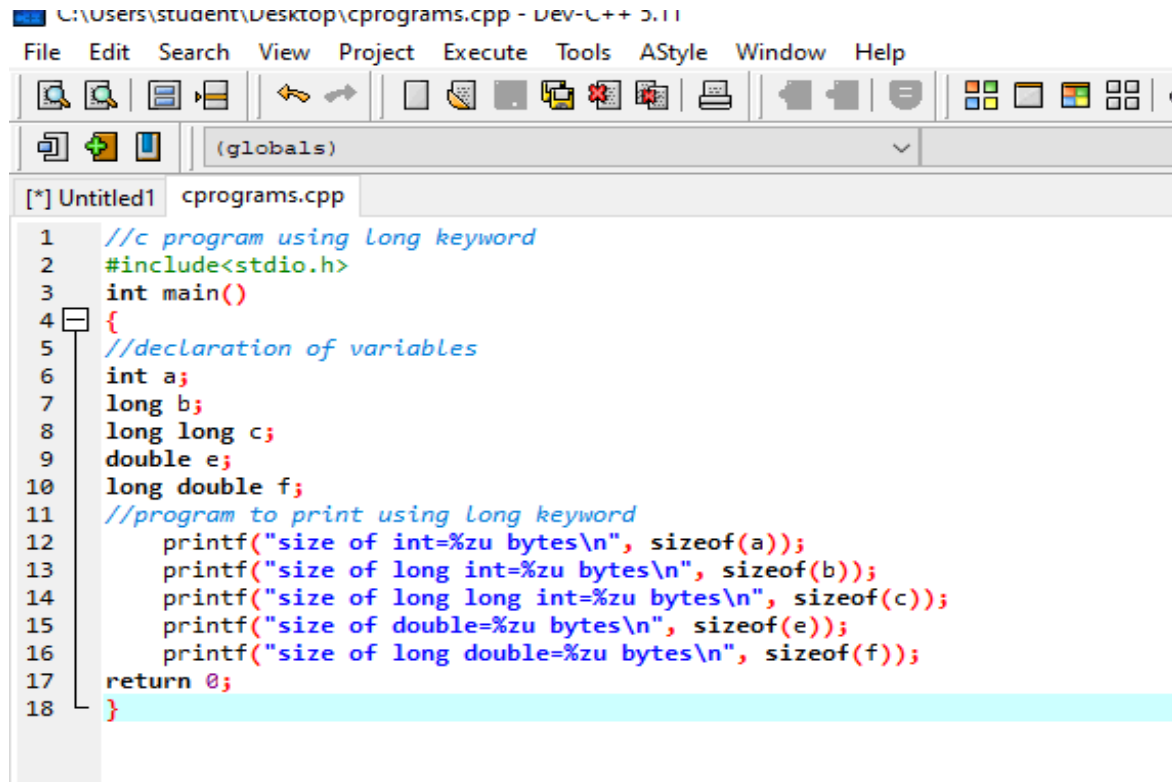
```
//c program using long keyword
#include<stdio.h>
int main()
{
//declaration of variables
int a;
long b;
long long c;
double e;
long double f;
//program to print using long keyword
    printf("size of int=%zu bytes\n", sizeof(a));
    printf("size of long int=%zu bytes\n", sizeof(b));
    printf("size of long long int=%zu bytes\n", sizeof(c));
    printf("size of double=%zu bytes\n", sizeof(e));
    printf("size of long double=%zu bytes\n", sizeof(f));
return 0;
}
```

Output:

```
C:\Users\student\Desktop\cprograms.exe

size of int=4 bytes
size of long int=4 bytes
size of long long int=8 bytes
size of double=8 bytes
size of long double=16 bytes

-----------------------------------
Process exited after 0.0813 seconds with return value 0
Press any key to continue . . .
```
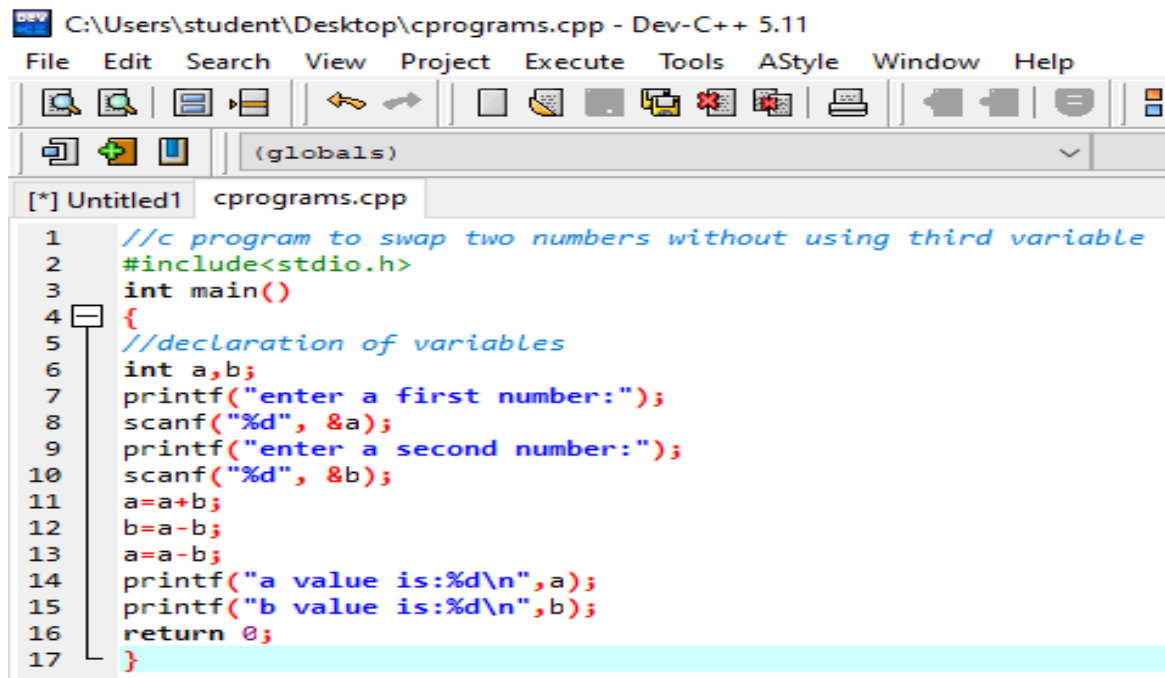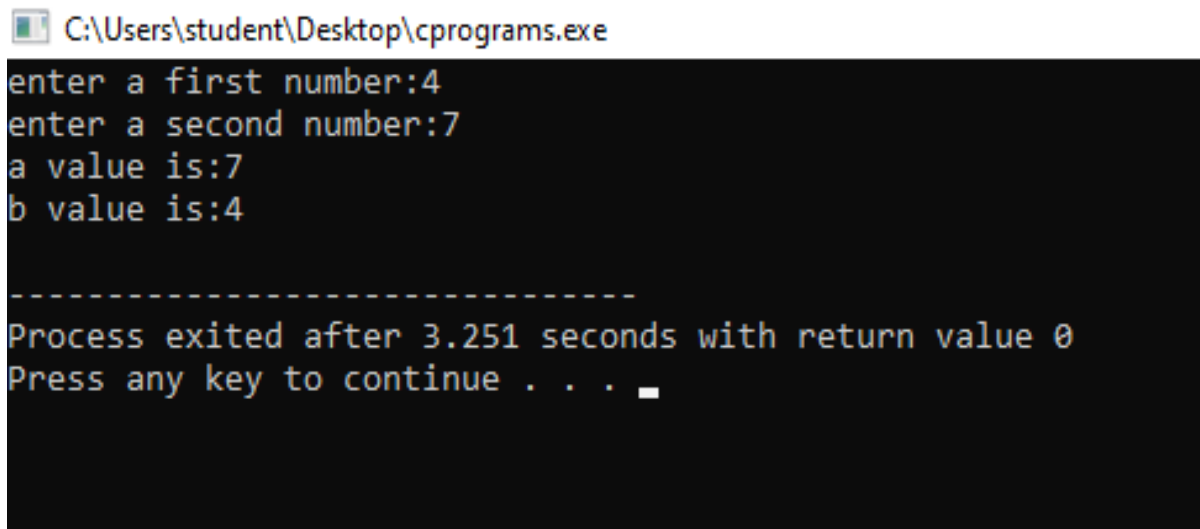
Basic C Programs

13.C Program to swap two numbers without using Third variable:

C:\Users\student\Desktop\cprograms.cpp - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

[*] Untitled1   cprograms.cpp

```c
1    //c program to swap two numbers without using third variable
2    #include<stdio.h>
3    int main()
4    {
5    //declaration of variables
6    int a,b;
7    printf("enter a first number:");
8    scanf("%d", &a);
9    printf("enter a second number:");
10   scanf("%d", &b);
11   a=a+b;
12   b=a-b;
13   a=a-b;
14   printf("a value is:%d\n",a);
15   printf("b value is:%d\n",b);
16   return 0;
17   }
```

Output:

C:\Users\student\Desktop\cprograms.exe

```
enter a first number:4
enter a second number:7
a value is:7
b value is:4


--------------------------------
Process exited after 3.251 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

14. C Program to print a person is eligible for vote or not

```
voting eligibility.cpp
1    //write a c programm for a person is eligible for vote or not?
2    #include<stdio.h>
3    int main()
4    {
5        int age;
6        printf("your age is:");
7        scanf("%d",&age);
8        if(age>=18)
9        {
10           printf("you are eligible");
11       }
12       else
13       {
14         printf("you are not eligible");
15       }
16   }
```

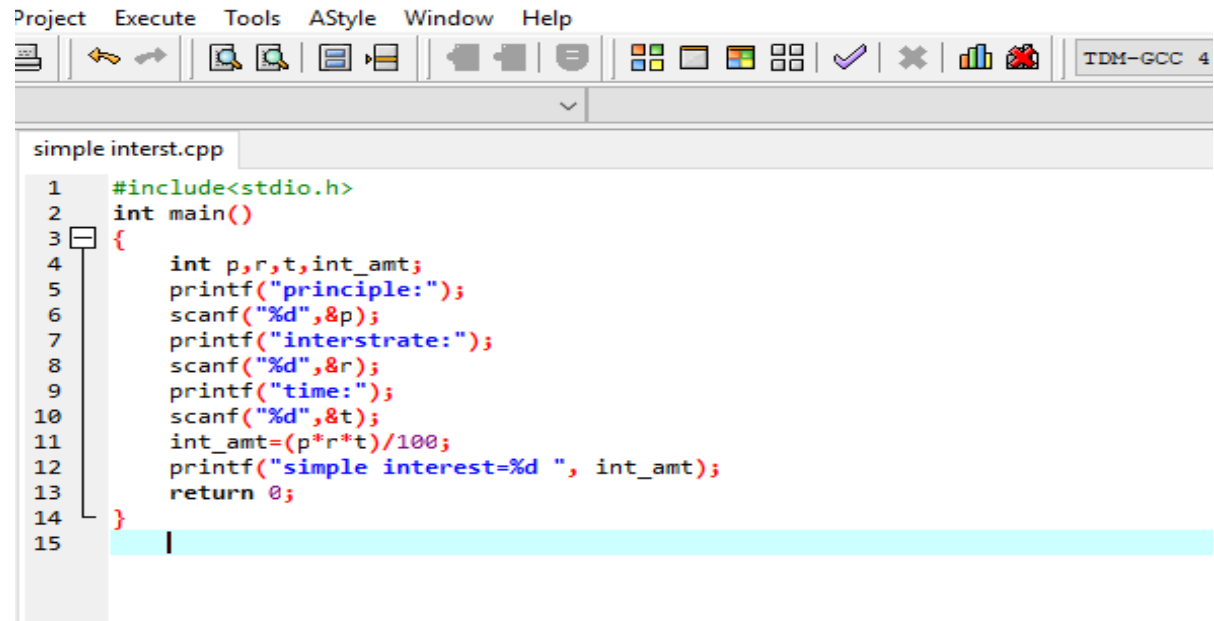**OUTPUT:**

C:\Users\rupika\Documents\voting eligibility.exe

```
your age is:21
you are eligible
--------------------------------
Process exited after 2.474 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs
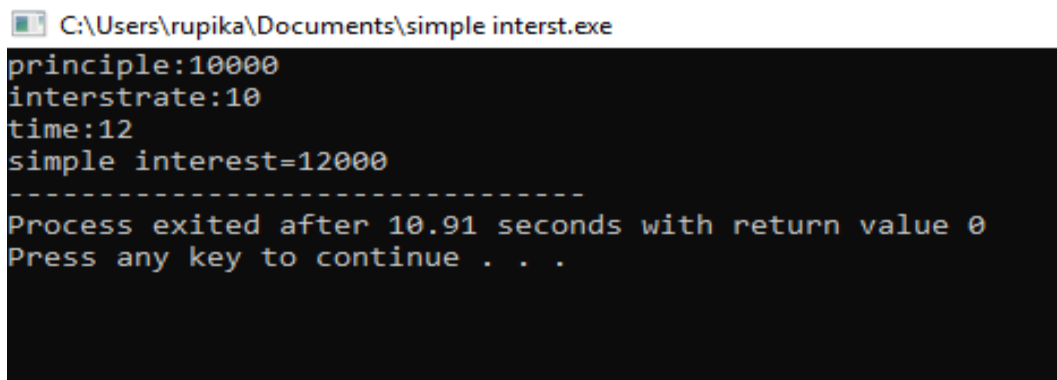
15. C Programs to print simple interest

```c
#include<stdio.h>
int main()
{
    int p,r,t,int_amt;
    printf("principle:");
    scanf("%d",&p);
    printf("interstrate:");
    scanf("%d",&r);
    printf("time:");
    scanf("%d",&t);
    int_amt=(p*r*t)/100;
    printf("simple interest=%d ", int_amt);
    return 0;
}
```
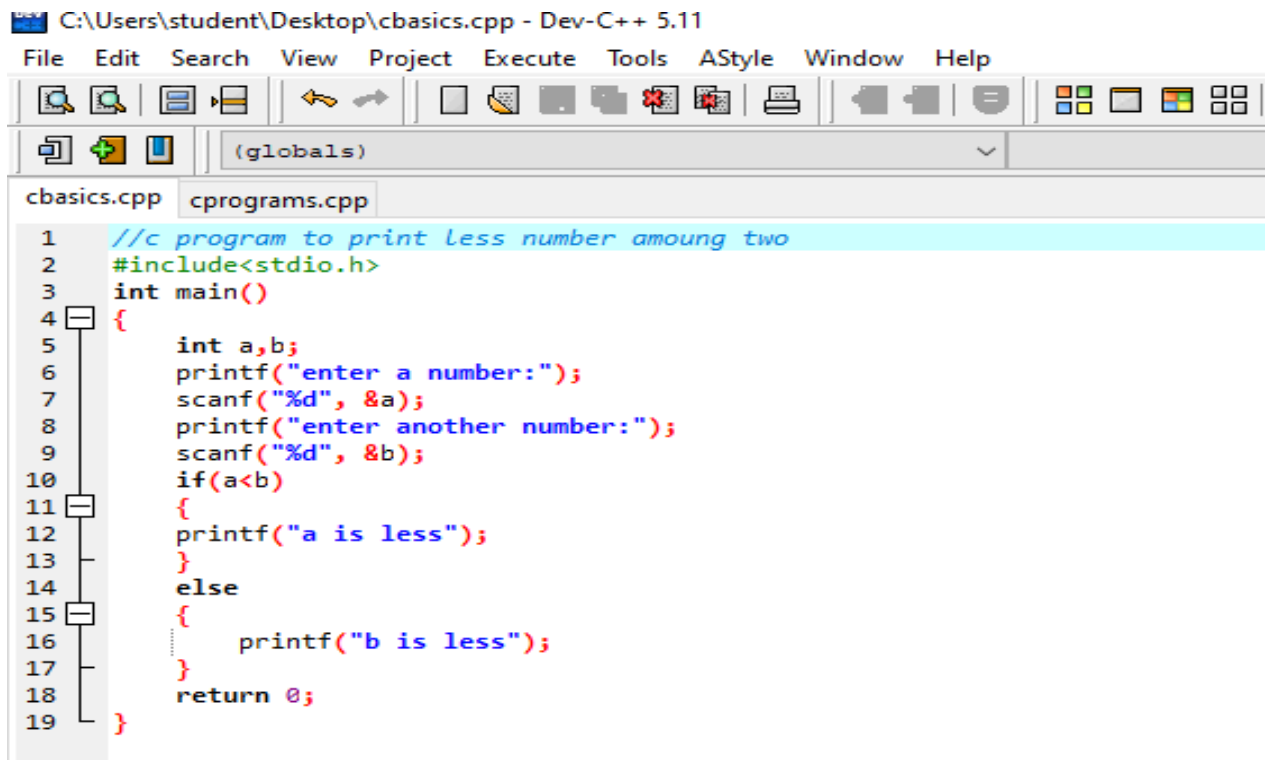
OUTPUT:

```
C:\Users\rupika\Documents\simple interst.exe
principle:10000
interstrate:10
time:12
simple interest=12000
--------------------------------
Process exited after 10.91 seconds with return value 0
Press any key to continue . . .
```
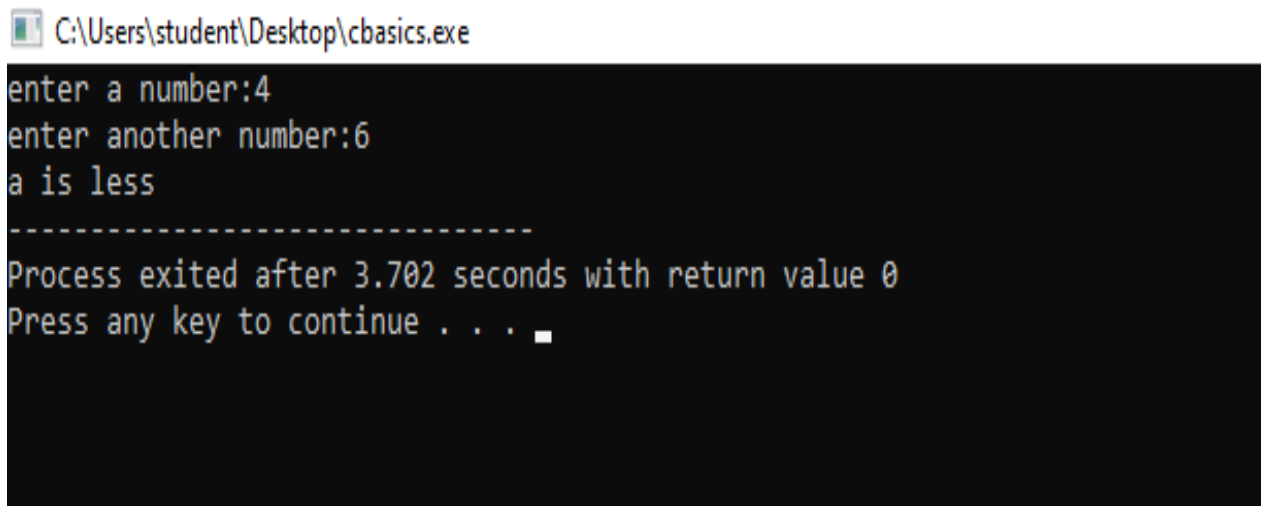
Basic C Programs

16. C Program to print smaller number among two numbers

C:\Users\student\Desktop\cbasics.cpp - Dev-C++ 5.11

File   Edit   Search   View   Project   Execute   Tools   AStyle   Window   Help

(globals)

cbasics.cpp   cprograms.cpp

```c
1    //c program to print less number amoung two
2    #include<stdio.h>
3    int main()
4    {
5        int a,b;
6        printf("enter a number:");
7        scanf("%d", &a);
8        printf("enter another number:");
9        scanf("%d", &b);
10       if(a<b)
11       {
12       printf("a is less");
13       }
14       else
15       {
16           printf("b is less");
17       }
18       return 0;
19   }
```
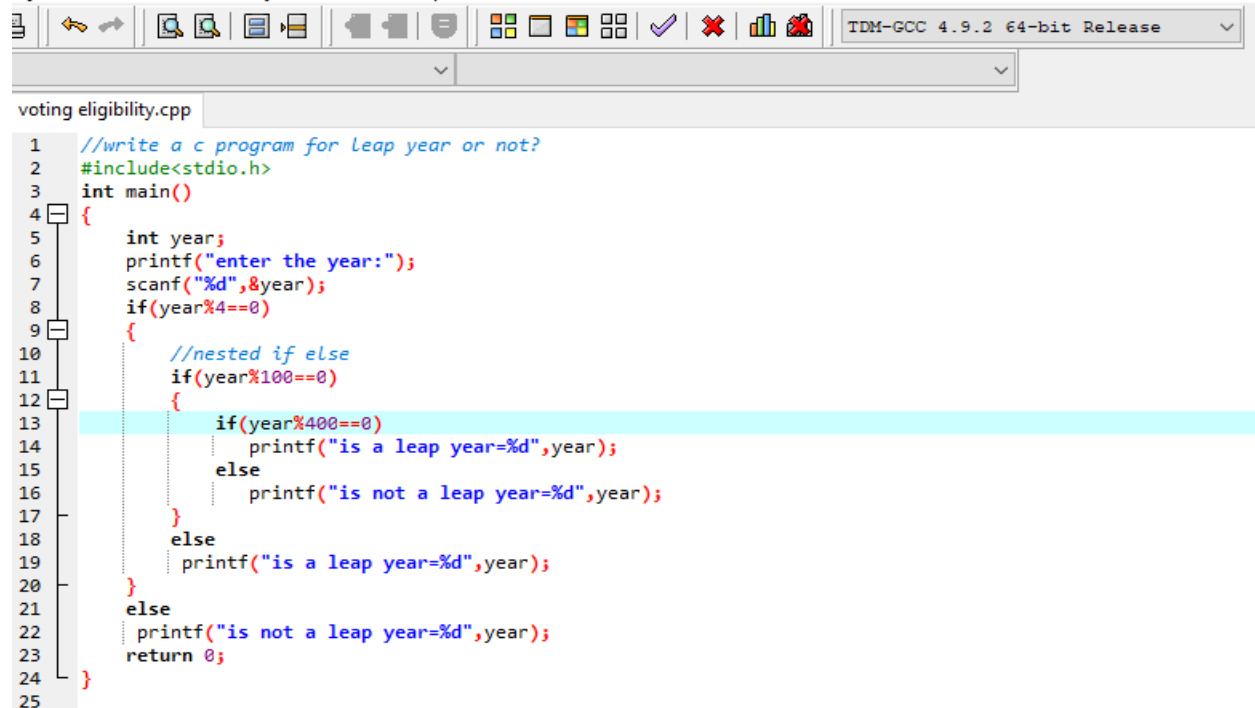
OUTPUT:

C:\Users\student\Desktop\cbasics.exe

```
enter a number:4
enter another number:6
a is less
-------------------------------
Process exited after 3.702 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

17. C Program to print leap year or not
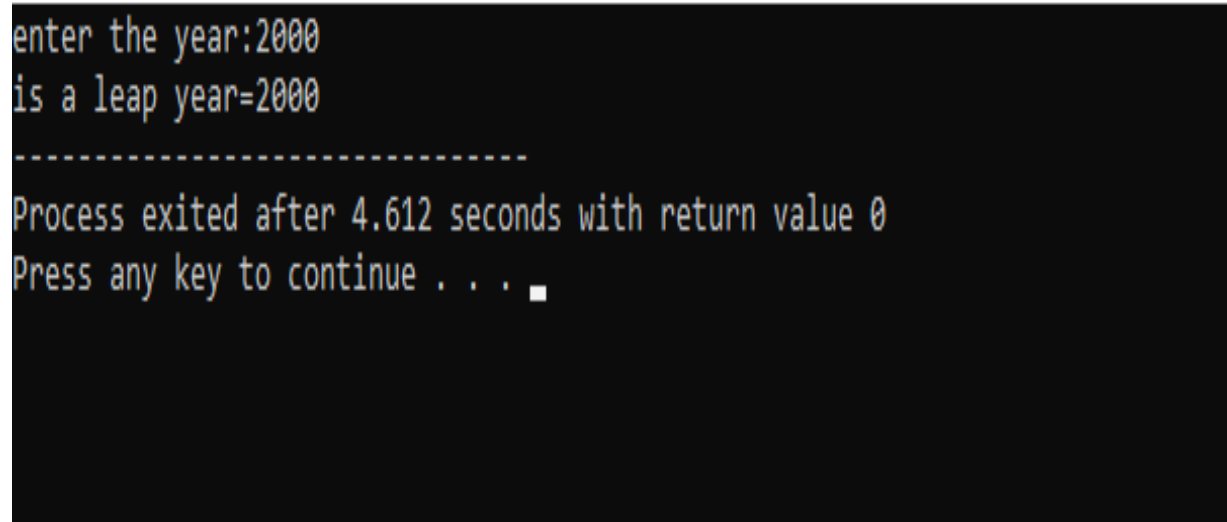
```
//write a c program for leap year or not?
#include<stdio.h>
int main()
{
    int year;
    printf("enter the year:");
    scanf("%d",&year);
    if(year%4==0)
    {
        //nested if else
        if(year%100==0)
        {
            if(year%400==0)
                printf("is a leap year=%d",year);
            else
                printf("is not a leap year=%d",year);
        }
        else
            printf("is a leap year=%d",year);
    }
    else
        printf("is not a leap year=%d",year);
    return 0;
}
```
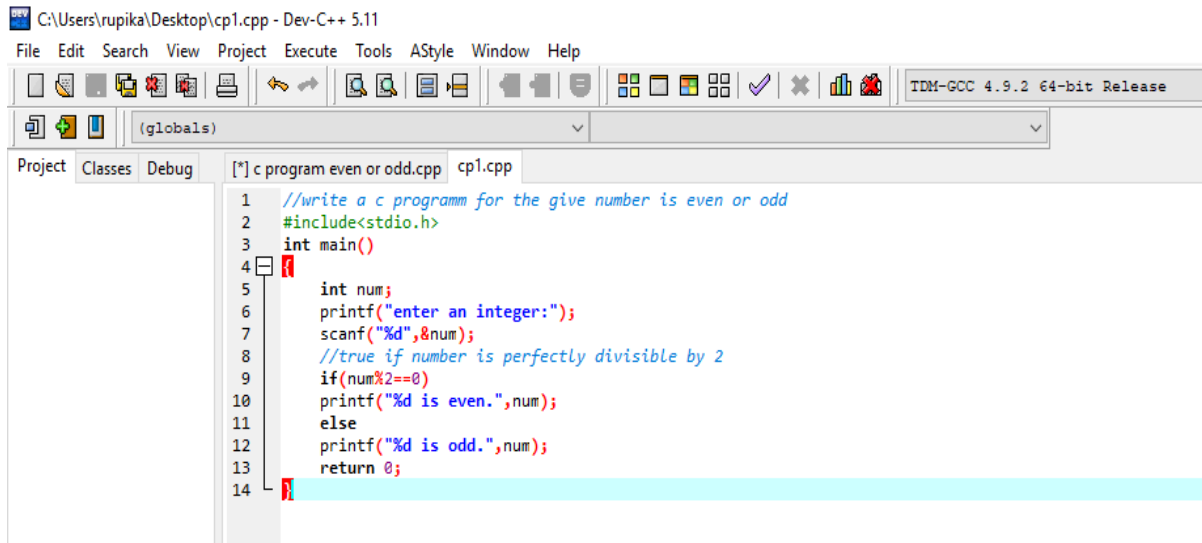
OUTPUT:

```
enter the year:2000
is a leap year=2000

--------------------------------

Process exited after 4.612 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

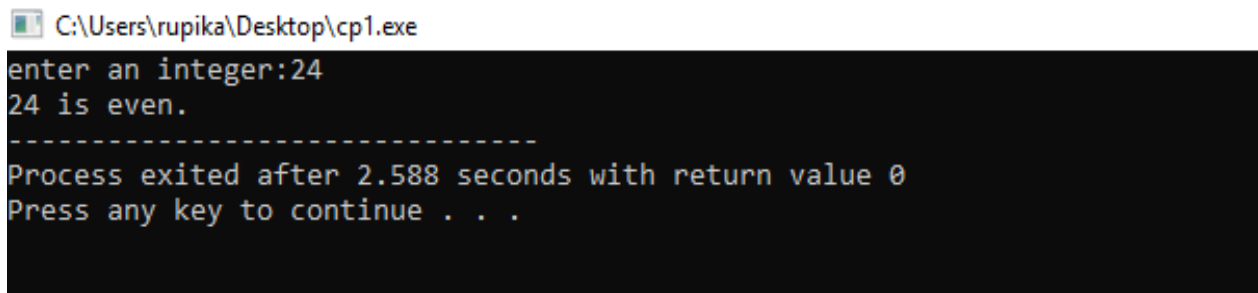**18. C Program to print even or odd**

```c
1   //write a c programm for the give number is even or odd
2   #include<stdio.h>
3   int main()
4   {
5       int num;
6       printf("enter an integer:");
7       scanf("%d",&num);
8       //true if number is perfectly divisible by 2
9       if(num%2==0)
10      printf("%d is even.",num);
11      else
12      printf("%d is odd.",num);
13      return 0;
14  }
```

OUTPUT:

C:\Users\rupika\Desktop\cp1.exe

```
enter an integer:24
24 is even.
--------------------------------
Process exited after 2.588 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

19. C Program To Check Whether Armstrong Or Not

```c
/*C Program to check whether the given number is Armstrong number or not*/
#include <stdio.h>
int main()
{
    int n,r,sum=0,temp;
    printf("Enter the number:");
    scanf("%d",&n);
    temp=n;
    while (n>0)
    {
        r=n%10;
        sum=sum+(r*r*r);
        n=n/10;
    }
    if (temp==sum)
     printf("The entered number is an armstrong number");
    else
     printf("The entered number is not an armstrong number");
}
```

OUTPUT:

C:\Users\POOJA.K\Desktop\Armstrong.exe

```
Enter the number:122
The entered number is not an armstrong number

------------------------------------

Process exited after 8.125 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

20. C Program To Check Given Number is Palindrome or not

```c
/*C Program to check whether the given number is Palindrome or not*/
#include <stdio.h>
int main()
{
    int temp,n,r=0;
    printf("Enter your number:");
    scanf("%d",&n);
    temp=n;
    while (n!=0)
    {
        r=r*10;
        r=r+n%10;
        n=n/10;
    }
    if (temp==r)
    {
        printf("The entered number is Palindrome");
    }
    else
    {
        printf("The entered number is not Palindrome");
    }
}
```

OUTPUT:

```
C:\Users\POOJA.K\Desktop\Palindrome.exe

Enter your number:1331
The entered number is Palindrome
------------------------------------
Process exited after 5.8 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs

21. C Program To Print Factorial Of a Number

```c
/*C Program t print Factorial of a given number*/
#include <stdio.h>
int main()
{
    int i,n,fact=1;
    printf("Enter a number:");
    scanf("%d",&n);
    for (i=1;i<=n;i++)
      fact=fact*i;
    printf("The factorial of %d is:%d",n,fact);
}
```

OUTPUT:

```
C:\Users\POOJA.K\Desktop\Factorial.exe

Enter a number:9
The factorial of 9 is:362880
--------------------------------
Process exited after 4.515 seconds with return value 0
Press any key to continue . . .
```
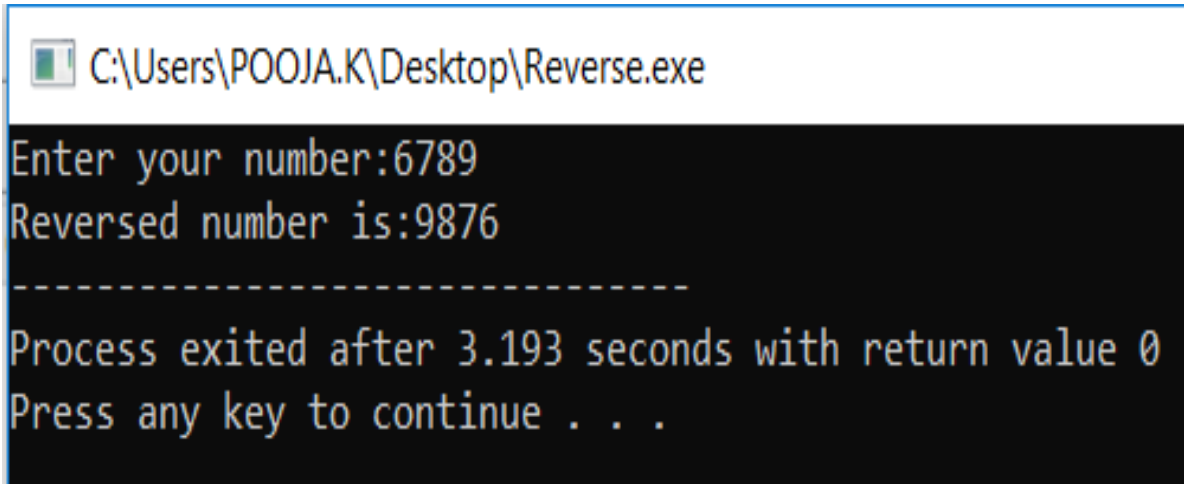
Basic C Programs

22. C program to print reverse of entered number

```
1    /*C Program to print Reverse of the entered number*/
2    #include <stdio.h>
3    int main()
4    {
5        int n,r=0;
6        printf("Enter your number:");
7        scanf("%d",&n);
8        while (n!=0)
9        {
10           r=r*10;
11           r=r+n%10;
12           n=n/10;
13       }
14       printf("Reversed number is:%d",r);
15   }
16
```

OUTPUT:

```
C:\Users\POOJA.K\Desktop\Reverse.exe

Enter your number:6789
Reversed number is:9876

------------------------------------
Process exited after 3.193 seconds with return value 0
Press any key to continue . . .
```

Basic C Programs