



---

# HOME TASK

---

C++ PROGRAMMING



**PREPARED BY:**

TALHA SHAH

461075

ME-15 A

**INSTRUCTOR:**

MR AFFAN


OCTOBER 25, 2023

NUST SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING  
H-12 ISLAMABAD

## TASK:01

Write a program in C++ that prints the numbers from 1 to 150 except the multiples of 10. Make use of the continue statement.

```
#include<iostream>
using namespace std;
int main()
{
    /*-----
    *printing number between 1 and 150 except multiple of 10
    */
    //using for loop
    for(int i=1;i<=150;i++)
    {
        // condition for multiple of 10
        if(i%10==0){
            continue;
        }
        else{
            //get output as number sequence except multiple of 10
            cout<<i<<endl;
        }
    }
    return 0;
    //end program
}
```

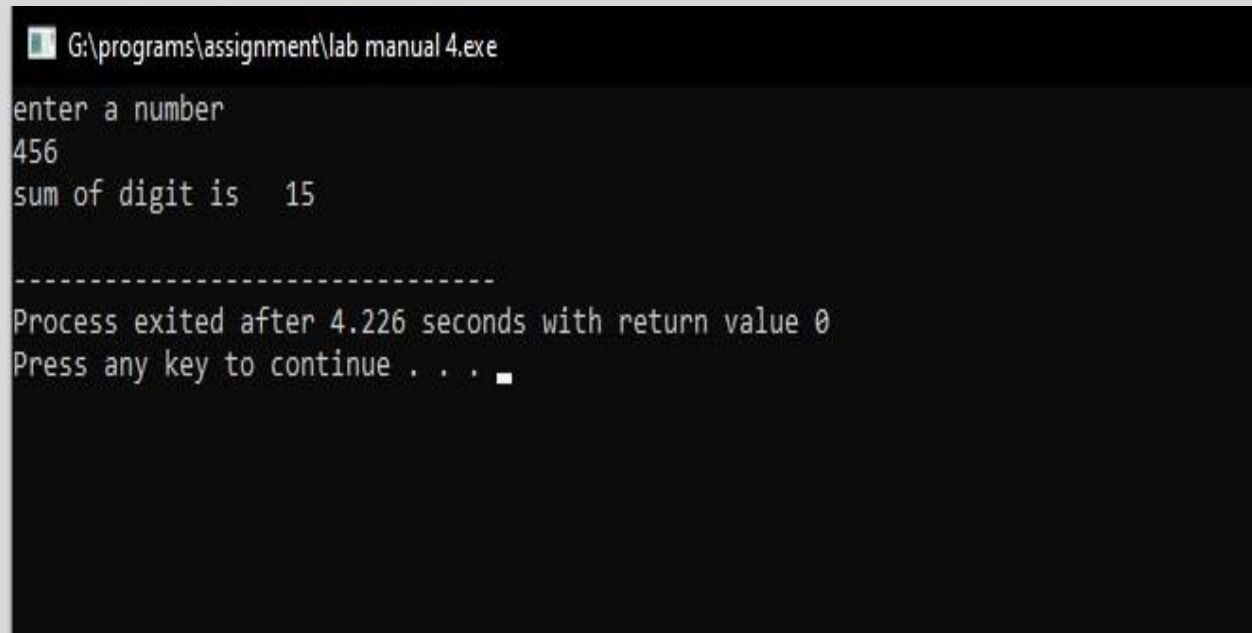


```
G:\programs\assignment\lab manual 4.exe
1
2
3
4
5
6
7
8
9
11
12
13
14
15
16
17
18
19
21
22
23
24
25
26
27
28
29
31
32
33
```

## TASK:02

Write a C++ program to find the sum of digits of a number. The sum of digits mean adding all the digits of any number, for example, we take any number like 358. Its sum of all digits is  $3+5+8=16$ .

```
/*-----  
*program to find sum of digits of number---  
*/  
// we declare number and sum  
int number,sum=0;  
//enter a number  
cout<<"enter a number"<<endl;  
cin>>number;  
// using while loop  
while(number!=0){  
    int digit=number%10;  
    sum+=digit;  
    number/=10;  
}  
// gets cout  
cout<<"sum of digit is  "<<sum<<endl;  
//end program}
```



```
G:\programs\assignment\lab manual 4.exe  
enter a number  
456  
sum of digit is 15  
  
-----  
Process exited after 4.226 seconds with return value 0  
Press any key to continue . . .
```

## TASK:03

Write a program in C++ to check whether a number is prime or not.

```

/*-----
 * program to check whether number is prime or not
 */
#include <iostream>
using namespace std;
//using boolean function
bool isPrime(int num) {
    if (num <= 1)
        //if number is less than 1 or equal to one it gets false
        {
            return false;
        }
    //condition for prime number
    for (int i = 2; i <= num / 2; i++) {
        if (num % i == 0) {
            return false;
        }
    }
    return true;
}

int main() {
    int number;
    // give an input number
    cout << "Enter a number: ";
    cin >> number;
    //using if else condition
    if (isPrime(number)) {
        cout << number << " is a prime number.";
    } else {
        cout << number << " is not a prime number.";
    }
    return 0;
}
//end program

```

```

C:\Users\Devi\Desktop\IIIII.exe
Enter a number: 7
7 is a prime number.
-----
Process exited after 7.204 seconds with return value 0
Press any key to continue . . .

```