



National University of Science and
technology
(NUST)

CS-114 - Fundamental of Programing

Lab Manual # 04

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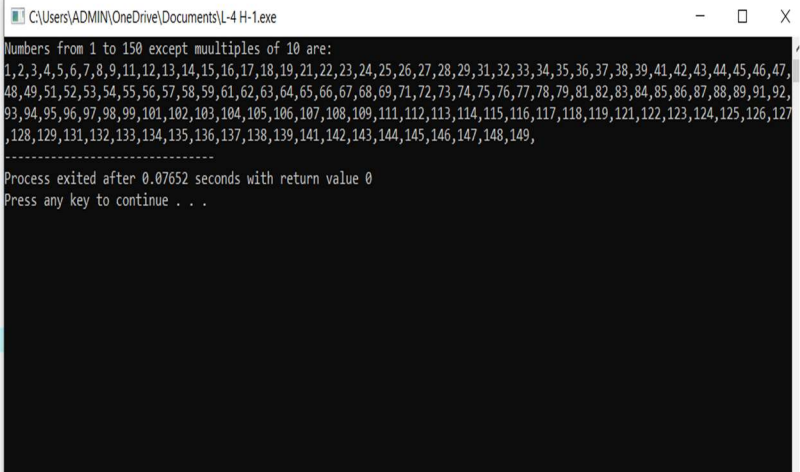
QALAM ID: 476434

Date: 24/10/2023

TASK 1:

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

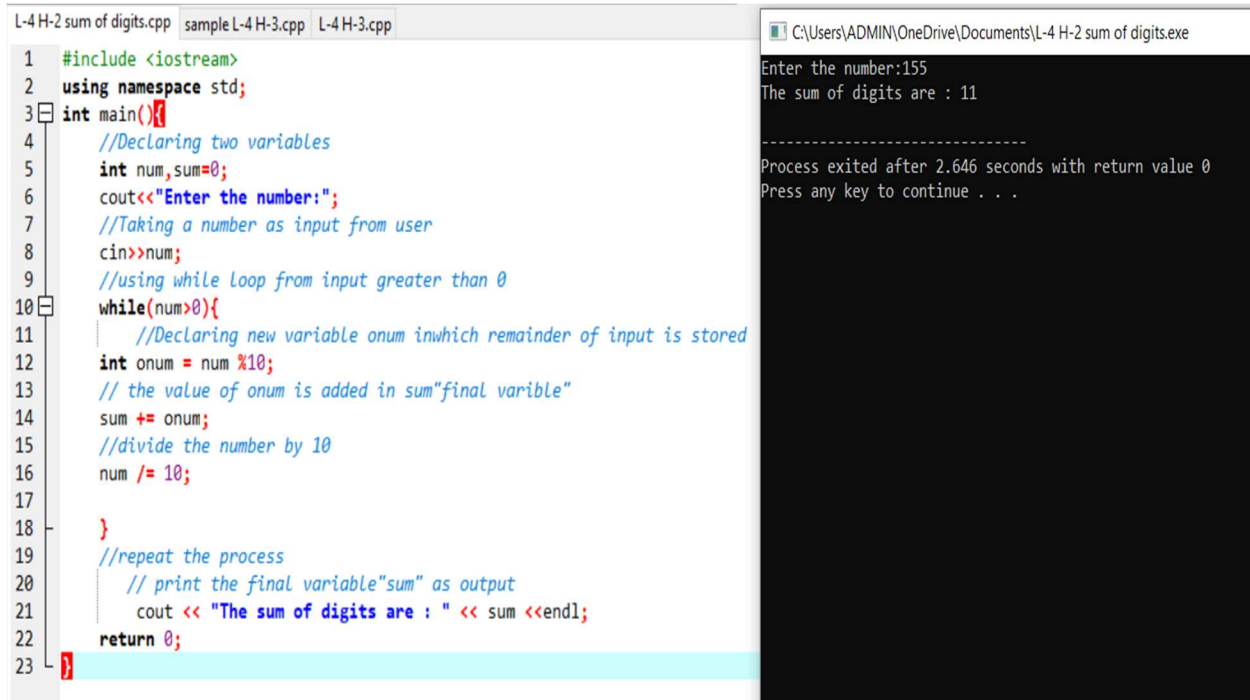
```
1  /*-----
2  "L-4 H-1" is a program to print numbers from 1 to 150 except multiples of 10 -
3  ---Name: Asim Imran---Reg no: 476434---Section: A---Date:24-10-2023-----*/
4  #include <iostream>
5  using namespace std;
6  int main()
7  {
8      //Declaring Variable
9      int num;
10     cout<<"Numbers from 1 to 150 except multiples of 10 are:"<<endl;
11     //using for Loop from 1 to 150
12     for(int x=1;x<=150;x++){
13         //using if statement to check if the number is
14         //divisible by 10 then Leave it
15         if(x%10==0){
16             //print all the others
17             //print all the others
18         }
19         else{
20             cout<<x<<" ";
21         }
22     }
23     return 0;
24 }
```



TASK 2:

Write a C++ program to find the sum of digits of a number.

The sum of digits means adding all the digits of any number, for example, we take any number like 358. Its sum of all digits is $3+5+8=16$.



```
L-4 H-2 sum of digits.cpp sample L-4 H-3.cpp L-4 H-3.cpp
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      //Declaring two variables
6      int num, sum=0;
7      cout<<"Enter the number:";
8      //Taking a number as input from user
9      cin>>num;
10     //using while loop from input greater than 0
11     while(num>0){
12         //Declaring new variable onum in which remainder of input is stored
13         int onum = num %10;
14         // the value of onum is added in sum"final variable"
15         sum += onum;
16         //divide the number by 10
17         num /= 10;
18     }
19     //repeat the process
20     // print the final variable"sum" as output
21     cout << "The sum of digits are : " << sum <<endl;
22     return 0;
23 }
```

```
C:\Users\ADMIN\OneDrive\Documents\L-4 H-2 sum of digits.exe
Enter the number:155
The sum of digits are : 11
-----
Process exited after 2.646 seconds with return value 0
Press any key to continue . . .
```

TASK 3:

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

```
1  /*-----*/
2  "L-4 H-3" is a program to check if a given number is prime or not
3  -----Name: Asim Imran-----Reg no: 476434-----Date: 24-10-2023---*/
4  #include <iostream>
5  using namespace std;
6  int main(){
7      //Declaring three variables
8      int num,p,check=0;
9      cout<<"Enter a Number:";
10     //Taking the nummber as input from user
11     cin>>num;
12     //using for loop to check no of divisibles
13     for(p=1;p<=num;p++)
14     {
15         //when dividing by a nummber,if remainder is zero than add '1' to
16         //the variable check
17         if(num%p==0){
18             check++;
19         }
20     }
21     //if there are only two divisors of the number then number is prime and printing by if
22     if(check==2){
23         cout<<num<<" is a 'Prime Number'"<<endl;
24     }
25     //if not, then print the number is not prime
26     else{
27         cout<<num<<" is not a 'Prime Number'"<<endl;
28     }
29     return 0;
}
```

```
C:\Users\ADMIN\OneDrive\Documents\L-4 H-3.exe
Enter a Number:21
21 is not a 'Prime Number'

-----
Process exited after 3.892 seconds with return value 0
Press any key to continue . . .
```

