



# NUST

NATIONAL UNIVERSITY  
OF SCIENCES & TECHNOLOGY

**FUNDAMENTALS OF PROGRAMMING**  
**HOME TASKS # 4 TASKS**

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**CLASS:ME-15**

**SECTION:B**

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## **TASK 1**

```
#include <iostream>

using namespace std;

int main(){

    for(int a;a<=150;a++){

        /*we enter an integer 'a' and set for loop till value of a reaches 150 and then we incremented vlue of
        a*/

        if(a%10==0){

            /*if the number is divisible by 10 do not write it*/

            cout<<endl;

            continue;

        }

        cout<<a<<"\t";

    }

    return 0;

}
```

```
C:\Users\Pc Planet\OneDrive\  ×  +  ∨

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     34     35     36     37     38     39
41     42     43     44     45     46     47     48     49
51     52     53     54     55     56     57     58     59
61     62     63     64     65     66     67     68     69
71     72     73     74     75     76     77     78     79
81     82     83     84     85     86     87     88     89
91     92     93     94     95     96     97     98     99
101    102    103    104    105    106    107    108    109
111    112    113    114    115    116    117    118    119
121    122    123    124    125    126    127    128    129
131    132    133    134    135    136    137    138    139
141    142    143    144    145    146    147    148    149

-----
Process exited after 0.09512 seconds with return value 0
Press any key to continue . . . |
```

## **TASK 2**

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
int num1,sum,num2;
```

```
cout<<"Enter number : ";
```

```
cin>>num1;
```

```
while(num1!=0){
```

```
/*using while loop until the number becomes zero.First take mod number by 10 then the remainder will be the last digit ,store it .Then we add this number in sum which was originally zero and also add sum .Then divide number by 10 so that it has all the values of the number except the last digit which was
```

stored in the num2.Repeat the steps until the number has no value left , it is done by dividing it by 10 until the program rounds off the code to floor.\*/

```
num2=num1%10;
```

```
sum=sum+num2;
```

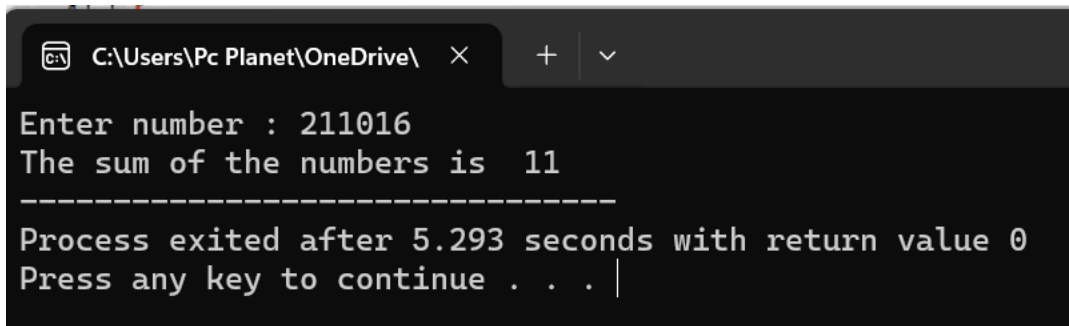
```
num1=num1/10;
```

```
}
```

```
cout<<"The sum of the numbers is "<<sum;
```

```
return 0;
```

```
}
```



```
C:\Users\Pc Planet\OneDrive\ × + ∨  
Enter number : 211016  
The sum of the numbers is 11  
-----  
Process exited after 5.293 seconds with return value 0  
Press any key to continue . . . |
```

---

### **TASK 3**

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
bool prime = false;
```

```
int n;
```

```
cout<<"Enter number : ";
```

```

cin>>n;

for(int d=2;d<=(n/2);++d){

/*using for loop with divider(d) starts from 2 and the loop continues until it is less than or greater than
half of the entered number. Then if the number is divided by d and remainder is zero then the condition
will be true. Then if number is not 1 and the condition is false then it is prime number else it is not a
prime number,*/

if(n%d==0 ){

prime=true;

break;

}

}

if(prime==false && n!=1){

cout<<"The number is prime.";

}

else{

cout<<"The number is not a prime number.";

}


return 0;

}

```

```
C:\Users\Pc Planet\OneDrive\ X + v
Enter number : 19
The number is prime.
-----
Process exited after 3.349 seconds with return value 0
Press any key to continue . . . |
```

```
C:\Users\Pc Planet\OneDrive\ X + v
Enter number : 69
The number is not a prime number.
-----
Process exited after 2.6 seconds with return value 0
Press any key to continue . . . |
```

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