

## LAB-1

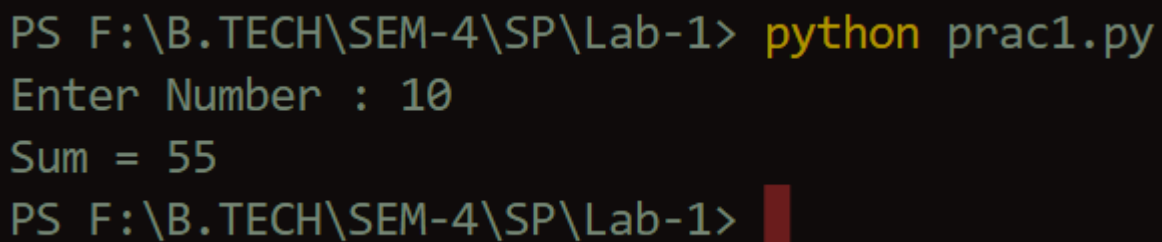
AIM : To learn the basics of Python programming language.

Q-1 Calculate the sum of all numbers from 1 to a given number

**Code :**

```
n = input("Enter Number : ")
sum = 0
for i in range(0, (int(n) + 1)) :
    sum += i
print("Sum = " + str(sum))
```

**Output**



```
PS F:\B.TECH\SEM-4\SP\Lab-1> python prac1.py
Enter Number : 10
Sum = 55
PS F:\B.TECH\SEM-4\SP\Lab-1>
```

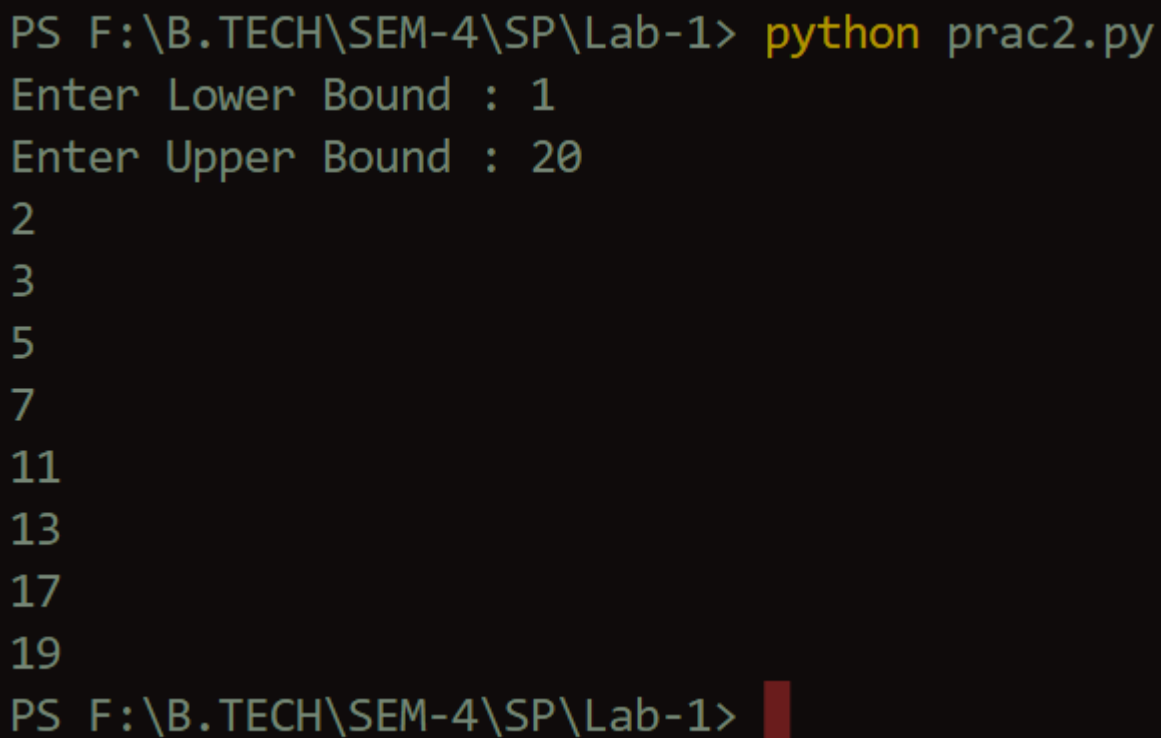
Q-2 Write a program to display all prime numbers within a range

**Code :**

```
a = int(input("Enter Lower Bound : "))
b = int(input("Enter Upper Bound : "))

for i in range(a, int(b) + 1):
    if i == 1:
        continue
    for j in range(2, i):
        if (i % j == 0):
            break
    else:
        print(i)
```

**Output**



```
PS F:\B.TECH\SEM-4\SP\Lab-1> python prac2.py
Enter Lower Bound : 1
Enter Upper Bound : 20
2
3
5
7
11
13
17
19
PS F:\B.TECH\SEM-4\SP\Lab-1>
```

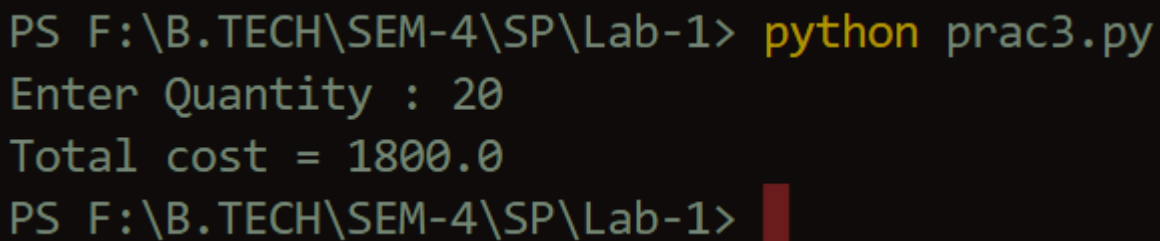
Q-3 A shop will give discount of 10% if the cost of purchased quantity is more than 1000. Ask user for quantity Suppose, one unit will cost 100. Judge and print total cost for user.

**Code :**

```
quantity = int(input("Enter Quantity : "))  
totalCost = int(100 * quantity)
```

```
if(totalCost >= 1000):  
    discount = (10 * totalCost) / 100  
    totalCost -= discount
```

```
print("Total cost = " + str(totalCost))
```

**Output**

```
PS F:\B.TECH\SEM-4\SP\Lab-1> python prac3.py  
Enter Quantity : 20  
Total cost = 1800.0  
PS F:\B.TECH\SEM-4\SP\Lab-1>
```

Q-4 A school has following rules for grading system:

- a. Below 25 - F
- b. 25 to 45 - E
- c. 45 to 50 - D
- d. 50 to 60 - C
- e. 60 to 80 - B
- f. Above 80 - A

Ask user to enter marks and print the corresponding grade.

**Code :**

```
marks = int(input("Enter Marks : "))
```

```
if(marks > 80) :  
    print("A")  
elif(marks > 60 and marks <= 80) :  
    print("B")  
elif(marks > 50 and marks <= 60) :  
    print("C")  
elif(marks > 45 and marks <= 50) :  
    print("D")  
elif(marks > 25 and marks <= 45) :  
    print("E")  
else :  
    print("F")
```

**Output**

```
PS F:\B.TECH\SEM-4\SP\Lab-1> python prac4.py  
Enter Marks : 89  
A  
PS F:\B.TECH\SEM-4\SP\Lab-1> █
```

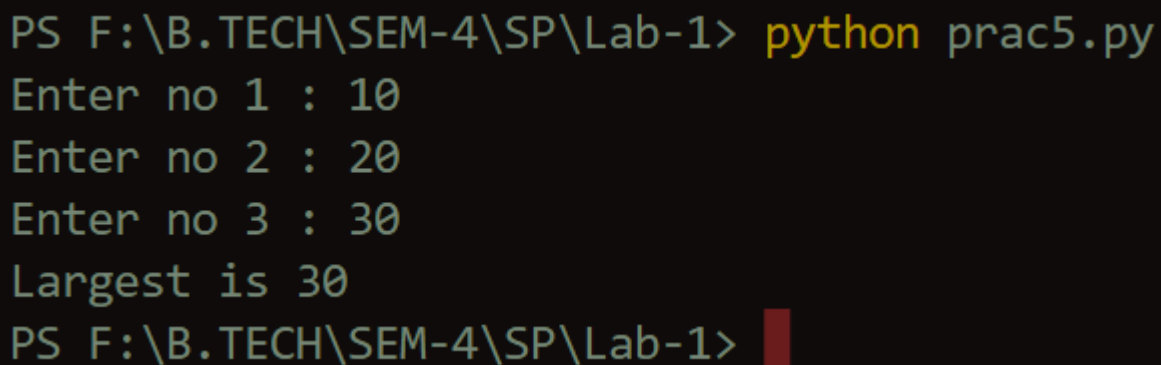
Q-5 Write a program to find largest number out of three numbers entered by the user.

**Code :**

```
no1 = int(input("Enter no 1 : "))
no2 = int(input("Enter no 2 : "))
no3 = int(input("Enter no 3 : "))

if(no1 > no2 and no1 > no3) :
    print("Largest is " + str(no1))
elif(no2 > no1 and no2 > no3) :
    print("Largest is " + str(no2))
else :
    print("Largest is " + str(no3))
```

**Output**



```
PS F:\B.TECH\SEM-4\SP\Lab-1> python prac5.py
Enter no 1 : 10
Enter no 2 : 20
Enter no 3 : 30
Largest is 30
PS F:\B.TECH\SEM-4\SP\Lab-1> 
```