Practical 2

Aim: Understanding control structure for Python programming language

A. Write a Python program to find number of prime numbers between 1 to n where n is defined by user.

Program/Procedure:

```
# Program A
n = int(input("Enter the value of n : "))
# b = int(input("Enter the value of b : "))
sum = 0
for i in range(1,n+1) :
    if(i%2!=0) :
        sum = sum + i

print("The sum of odd numbers are :",sum,"and the average of odd numbers are :",(sum/n))

print("The prime numbers are : ")

p = int(input("Enter the range 1 of a number : "))
q = int(input("Enter the range 2 of a number : "))
for i in range(p,q+1) :
    if(i==1) :
        print(i," is Neither Prime Nor Composite")
    elif(i==2) :
        print(i)
    else :
        cnt = 0
        for j in range(2,i):
            if(i%j!=0):
                continue
            else:
```

```
            cnt = 1
            break
        if (cnt==0):
         print(i)
```

Results:

```
Enter the value of n : 5
The sum of odd numbers are : 9 and the average of odd numbers are :  1.8
The prime numbers are :
Enter the range 1 of a number : 1
Enter the range 2 of a number : 10
1  is Neither Prime Nor Composite
2
3
5
7
```

Conclusion:

In this practical i came to know about the working of the for-loop and also i have learn't about the concept of the range in for-loop and also i have learn't about prime numbers logic and how to get prime numbers in between the range.

Aim:

B. Write a Python program to test whether a passed letter is a vowel or not using vowel (character) function.

Program/Procedure:

```
a = input("Enter the character : ")
def vowel(a) :
    vw = ['a','e','i','o','u','A','E','I','O','U']
    if a in vw :
        print(a,"is Vowel")
    else :
        print(a,"is Consonant")

vowel(a)

b = input("Enter the string : ")
def vowels(b) :
    c=0
    vw = ['a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U']
    for i in b :
        if(i in vw) :
            print(i)
            c = c+1
    return c

print(vowels(b))
```

Results:

```
Enter the character : a
a is Vowel
Enter the string : france
a  is present
e  is present
The no. of vowels in string  france is : 2
```

Conclusion:

In this practical i have learned about the working of the if-else statement and i have implemented the vowel method to know about that whether a character is vowel or not and i have also learned about the working of the for loop and i came to know that how for-loop differs from the while loop.

Signature:

Date: