

Assignment -2

Python Programming

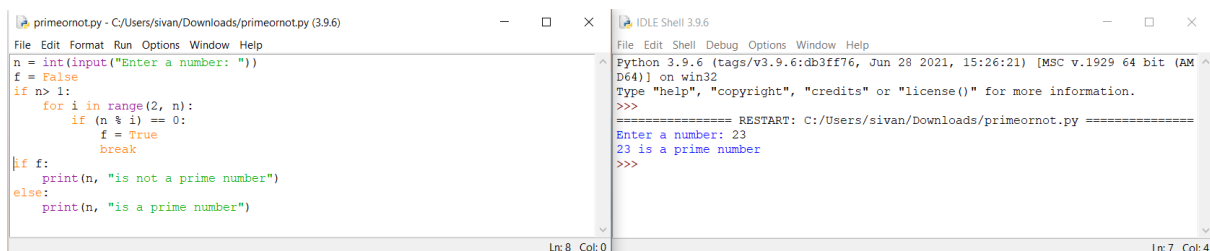
Assignment Date	19 September 2022
Student Name	Sivanandhini R
Student Roll Number	820419104068
Maximum Marks	2 Marks

Question-1:

Write a python program to test a given number is prime or not.

Solution :

```
n = int(input("Enter a
number: "))
f = False
if n > 1:
    for i in range(2, n):
        if (n % i) == 0:
            f = True
            break
if f:
    print(n, "is not a prime
number")
else:
    print(n, "is a prime
number")
```



The screenshot shows a Python IDE with two windows. The left window, titled 'primeornot.py - C:/Users/sivan/Downloads/primeornot.py (3.9.6)', contains the following code:

```
n = int(input("Enter a number: "))
f = False
if n > 1:
    for i in range(2, n):
        if (n % i) == 0:
            f = True
            break
if f:
    print(n, "is not a prime number")
else:
    print(n, "is a prime number")
```

The right window, titled 'IDLE Shell 3.9.6', shows the execution output:

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/sivan/Downloads/primeornot.py =====
Enter a number: 23
23 is a prime number
>>>
```

Question-2:

Write a program to generate odd numbers from m to n using while loop

Solution :

```
min = int(input(" Enter any min value:"))
max = int(input(" Enter any max Value : "))
X=1;
if (min < max):
```

```

while X in range(min,max+ 1):
    if( X % 2 != 0):
        print("{0}".format(X))
        X=X+1;
else:
    print("min value you've entered is greater than max value")

```

The screenshot shows two windows. The left window is the Python script editor for 'odd.py', and the right window is the IDLE Shell. The shell shows the program's execution: it prompts for a min value (1) and a max value (5), then prints the odd numbers in that range: 1, 3, 5.

Question-3:

Write a Python program to display prime number series upto given number.

Solution :

```

l = 1
u = int(input("Enter the number : "))
print("Prime numbers between",1,"and",u,"are:")
for n in range(l,u + 1):
    if n > 1:
        for i in range(2, n):
            if (n%i) == 0:
                break
        else:
            print(n)

```

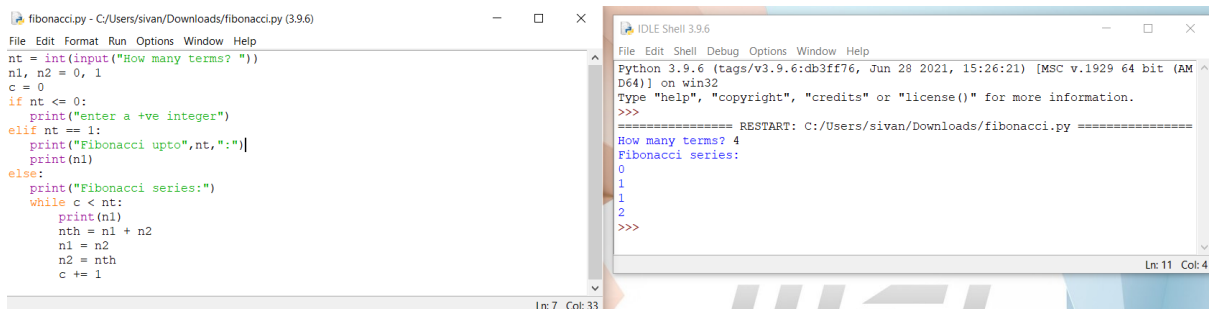
The screenshot shows two windows. The left window is the Python script editor for 'primenumberrange.py', and the right window is the IDLE Shell. The shell shows the program's execution: it prompts for a number (10) and prints the prime numbers between 1 and 10: 2, 3, 5, 7.

Question-4:

Write a Python program to generate Fibonacci series.

Solution :

```
nt = int(input("How many terms? "))
n1, n2 = 0, 1
c = 0
if nt <= 0:
    print("enter a +ve integer")
elif nt == 1:
    print("Fibonacci upto",nt,":")
    print(n1)
else:
    print("Fibonacci series:")
    while c < nt:
        print(n1)
        nth = n1 + n2
        n1 = n2
        n2 = nth
        c += 1
```



The screenshot displays a Python IDE with two windows. The left window, titled 'fibonacci.py - C:/Users/sivan/Downloads/fibonacci.py (3.9.6)', contains the Python code for generating the Fibonacci series. The right window, titled 'IDLE Shell 3.9.6', shows the execution output. The user has entered '4' for the number of terms, and the program has printed the Fibonacci series: 0, 1, 1, 2.

```
fibonacci.py - C:/Users/sivan/Downloads/fibonacci.py (3.9.6)
File Edit Format Run Options Window Help
nt = int(input("How many terms? "))
n1, n2 = 0, 1
c = 0
if nt <= 0:
    print("enter a +ve integer")
elif nt == 1:
    print("Fibonacci upto",nt,":")
    print(n1)
else:
    print("Fibonacci series:")
    while c < nt:
        print(n1)
        nth = n1 + n2
        n1 = n2
        n2 = nth
        c += 1
Ln: 7 Col: 33
```

```
IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/sivan/Downloads/fibonacci.py =====
How many terms? 4
Fibonacci series:
0
1
1
2
>>>
Ln: 11 Col: 4
```