

Assignment -4
Python Programming

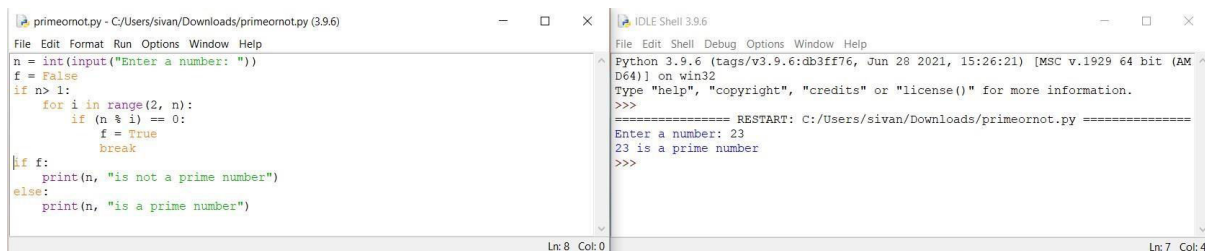
Assignment Date	19 September 2022
Student Name	Mohamed Yahiya. B
Student Roll Number	963219104018
Maximum Marks	2 Marks

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")
```



```
primeornot.py - C:/Users/sivan/Downloads/primeornot.py (3.9.6)
File Edit Format Run Options Window Help
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")
Ln: 8 Col: 0

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/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 from the Python IDLE 3.9.6 environment. The left window, titled 'odd.py - C:\Users\sivan\Downloads\odd.py (3.9.6)', contains the following code:

```

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 right window, titled 'IDLE Shell 3.9.6', shows the program's execution. It prompts for 'Enter any min value:1' and 'Enter any max Value : 5'. The output shows the odd numbers 1, 3, and 5 being printed, followed by the shell prompt '>>>'.

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",l,"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 from the Python IDLE 3.9.6 environment. The left window, titled 'primenumberrange.py - C:\Users\sivan\Downloads\primenumberrange.py (3.9.6)', contains the following code:

```

l = 1
u = int(input("Enter the number : "))
print("Prime numbers between",l,"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)

```

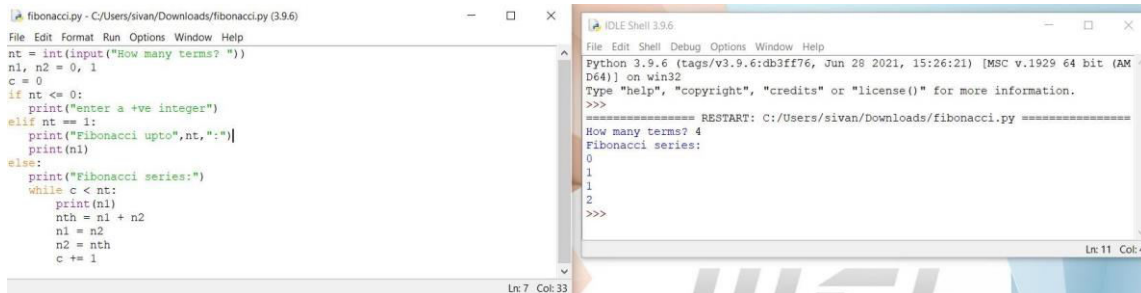
The right window, titled 'IDLE Shell 3.9.6', shows the program's execution. It prompts for 'Enter the number : 10'. The output shows the prime numbers 2, 3, 5, 7, and 10 being printed, followed by the shell prompt '>>>'.

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 two windows from a Python IDE. The left window, titled 'fibonacci.py - C:/Users/sivan/Downloads/fibonacci.py (3.9.6)', shows the source code of the program. The right window, titled 'IDLE Shell 3.9.6', shows the program's execution. The user has entered '4' for the number of terms. The output shows the first four terms of 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

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
>>>
```