

Assignment -4
Python Programming

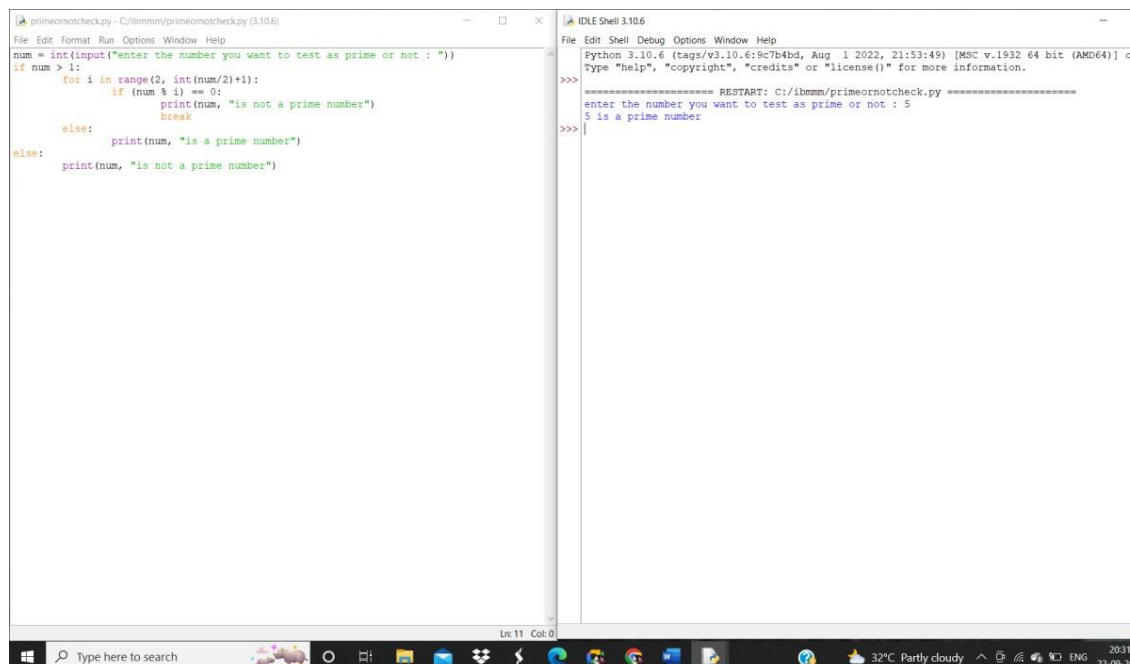
Assignment Date	19 September 2022
Student Name	Ms. Subasri.D.R
Student Roll Number	820419104073
Maximum Marks	2 Marks

Question-1:

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

Solution:

```
num = int(input("enter the number you want to test as prime or not : "))
if num > 1:
    for i in range(2, int(num/2)+1):
        if (num % i) == 0:
            print(num, "is not a prime number")
            break
    else:
        print(num, "is a prime number")
else:
    print(num, "is not a prime number")
```



The screenshot displays a Python IDE with two windows. The left window, titled 'primeornotcheck.py - C:/ibmm/primeornotcheck.py (3.10.6)', contains the following code:

```
num = int(input("enter the number you want to test as prime or not : "))
if num > 1:
    for i in range(2, int(num/2)+1):
        if (num % i) == 0:
            print(num, "is not a prime number")
            break
    else:
        print(num, "is a prime number")
else:
    print(num, "is not a prime number")
```

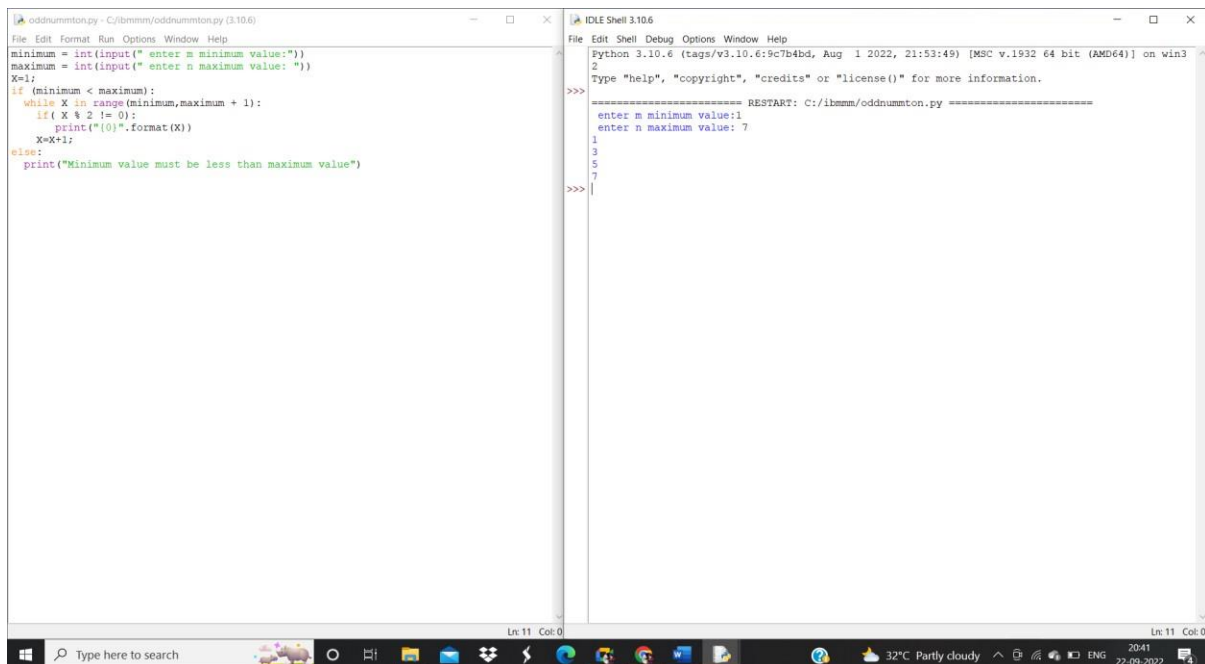
The right window, titled 'IDLE Shell 3.10.6', shows the program's execution. It displays the prompt 'enter the number you want to test as prime or not : 5' and the output '5 is a prime number'. The shell also shows a restart message: 'RESTART: C:/ibmm/primeornotcheck.py'.

Question-2:

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

Solution:

```
minimum = int(input(" enter m minimum value:"))
maximum = int(input(" enter n maximum value: "))
X=1;
if (minimum < maximum):
    while X in range(minimum,maximum + 1):
        if (X % 2 != 0):
            print("{} ".format(X))
            X=X+1;
else:
    print("Minimum value must be less than maximum value")
```



The screenshot displays a Python IDE with two windows. The left window, titled 'odddnummton.py - C:/ibmm/odddnummton.py (3.10.6)', contains the following code:

```
minimum = int(input(" enter m minimum value:"))
maximum = int(input(" enter n maximum value: "))
X=1;
if (minimum < maximum):
    while X in range(minimum,maximum + 1):
        if (X % 2 != 0):
            print("{} ".format(X))
            X=X+1;
else:
    print("Minimum value must be less than maximum value")
```

The right window, titled 'IDLE Shell 3.10.6', shows the execution output:

```
Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> ===== RESTART: C:/ibmm/odddnummton.py =====
enter m minimum value:1
enter n maximum value: 7
1
3
5
7
>>>
```

The Windows taskbar at the bottom shows the date and time as 20:41 on 22-09-2022, and the weather as 32°C Partly cloudy.

Question-3:

Write a python program to display prime number series upto a given number

Solution:

```
upper_value = int(input("Please, Enter the Upper Range Value: "))
```

```
number=1
```

```
print("The Prime Numbers in the range are: ")
```

```
for number in range (number,upper_value + 1):
```

```
    if number > 1:
```

```
        for i in range (2, number):
```

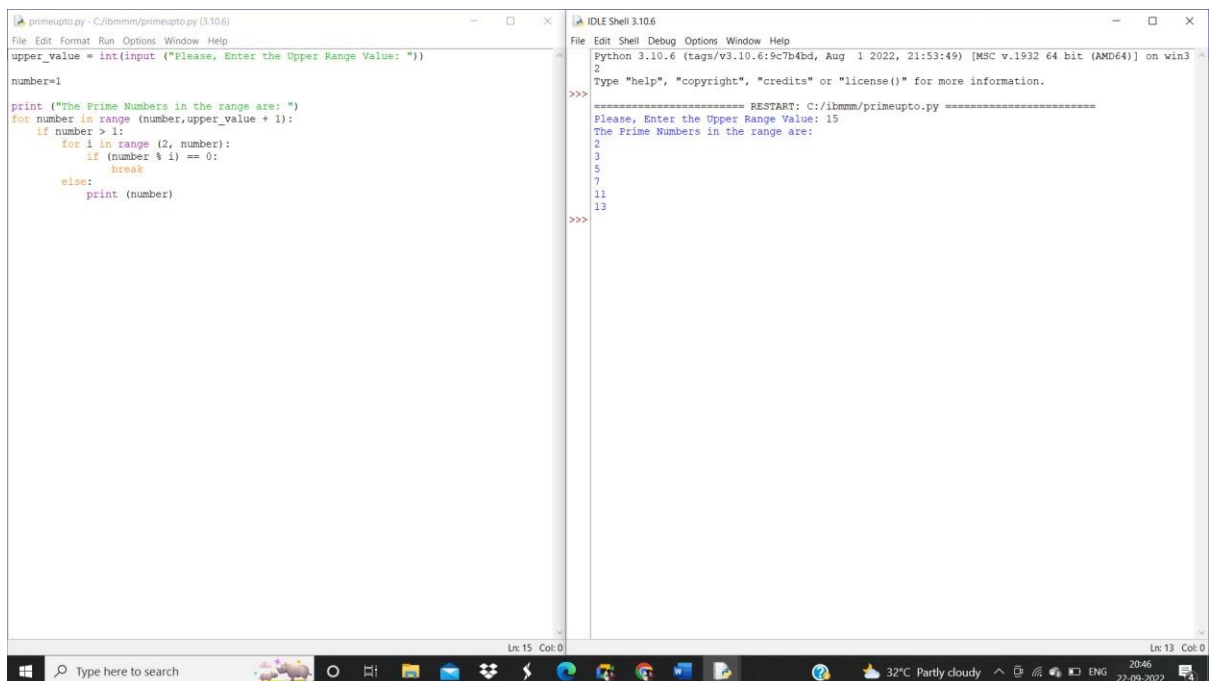
```
            if (number % i) == 0:
```

```
                break
```

```
        else:
```

```
            print (number)
```

output:



The screenshot shows a Python IDE with two windows. The left window, titled 'primeupto.py - C:/bmmm/primeupto.py (3.10.6)', contains the following code:

```
upper_value = int(input("Please, Enter the Upper Range Value: "))

number=1

print("The Prime Numbers in the range are: ")
for number in range (number,upper_value + 1):
    if number > 1:
        for i in range (2, number):
            if (number % i) == 0:
                break
        else:
            print (number)
```

The right window, titled 'IDLE Shell 3.10.6', shows the execution output:

```
Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/bmmm/primeupto.py =====
Please, Enter the Upper Range Value: 15
The Prime Numbers in the range are:
2
3
5
7
11
13
>>>
```

The Windows taskbar at the bottom shows the date as 22-09-2022 and the time as 20:46.

Question-4:

Write a python program to generate Fibonacci series

Solution:

```
n_terms = int(input("How many terms the user wants to print? "))
```

```
n_1 = 0
```

```
n_2 = 1
```

```
count = 0
```

```
if n_terms <= 0:
```

```
    print("Please enter a positive integer, the given number is not valid")
```

```
elif n_terms == 1:
```

```
    print("The Fibonacci sequence of the numbers up to", n_terms, ": ")
```

```
    print(n_1)
```

```
else:
```

```
    print("The fibonacci sequence of the numbers is:")
```

```
    while count < n_terms:
```

```
        print(n_1)
```

```
        nth = n_1 + n_2
```

```
        n_1 = n_2
```

```
        n_2 = nth
```

```
        count += 1
```

The screenshot displays a Python IDE with two windows. The left window, titled 'fib.py - C:\Users\user\Documents\fib.py (3.10.6)', contains the following code:

```
File Edit Format Run Options Window Help
n_terms = int(input("How many terms the user wants to print? "))
n_1 = 0
n_2 = 1
count = 0
if n_terms <= 0:
    print("Please enter a positive integer, the given number is not valid")
elif n_terms == 1:
    print("The Fibonacci sequence of the numbers up to", n_terms, ": ")
    print(n_1)
else:
    print("The fibonacci sequence of the numbers is:")
    while count < n_terms:
        print(n_1)
        nth = n_1 + n_2
        n_1 = n_2
        n_2 = nth
        count += 1
```

The right window, titled 'Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32', shows the program's execution. It prompts the user for the number of terms, and the output displays the Fibonacci sequence up to the specified number of terms.

```
>>>
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\user\Documents\fib.py =====
How many terms the user wants to print? 7
The fibonacci sequence of the numbers is:
0
1
1
2
3
5
8
>>>
```

The taskbar at the bottom shows the system clock as 20:55 on 22-09-2022, with a weather forecast of 32°C Partly cloudy.