

Assignment - 3
Python Programming

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

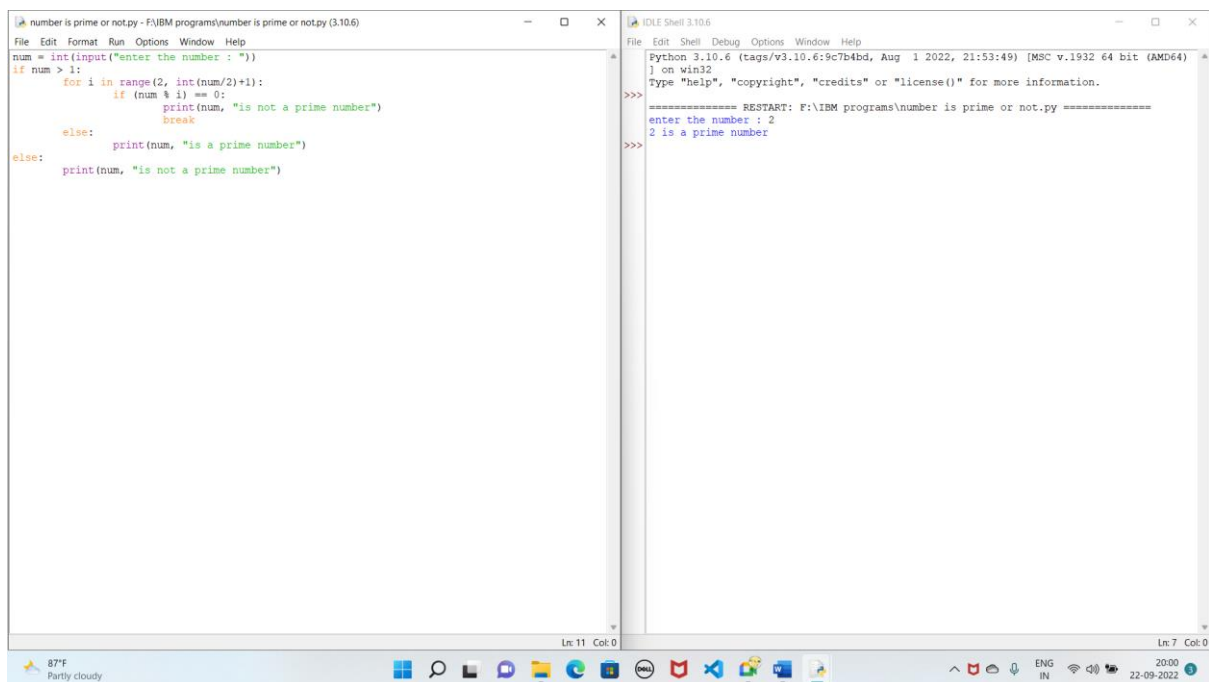
Question-1:

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

Solution:

```
num = int(input("enter the number : "))

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 image shows a screenshot of a Python IDE with two windows. The left window, titled 'number is prime or not.py - F:\IBM programs\number is prime or not.py (3.10.6)', contains the following code:

```
num = int(input("enter the number : "))
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 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: F:\IBM programs\number is prime or not.py =====
enter the number : 2
2 is a prime number
>>>
```

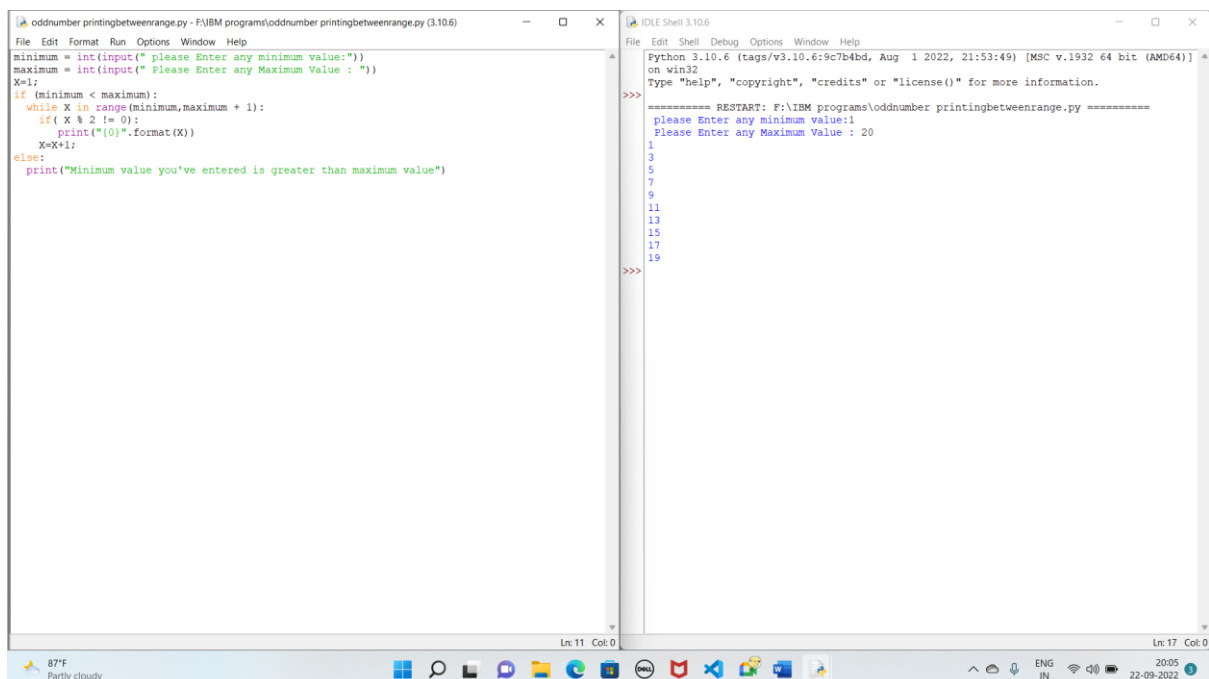
The taskbar at the bottom shows the system clock as 20:00 on 22-09-2022.

Question-2:

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

Solution:

```
minimum = int(input(" please Enter any minimum value:"))
maximum = int(input(" Please Enter any Maximum Value : "))
X=1;
if (minimum < maximum):
    while X in range(minimum,maximum + 1):
        if( X % 2 != 0):
            print("{0}".format(X))
            X=X+1;
else:
    print("Minimum value you've entered is greater than maximum value")
```



Question-3:

Write a python program to display prime number series up to given number.

Solution:

```
lower = 1
upper = int(input("Enter the number upto which prime numbers are found : "))

print("Prime numbers between", 1 , "and", upper, "are:")

for num in range(lower, upper + 1):
    if num > 1:
        for i in range(2, num):
            if (num % i) == 0:
                break
        else:
            print(num)
```

The screenshot shows a Python IDE with two windows. The left window, titled 'Prime number series upto given number.py - F:\IBM programs\Prime number series upto given number.py (3.10.6)', contains the following code:

```
lower = 1
upper = int(input("Enter the number upto which prime numbers are found : "))
print("Prime numbers between", 1, "and", upper, "are:")
for num in range(lower, upper + 1):
    if num > 1:
        for i in range(2, num):
            if (num % i) == 0:
                break
            else:
                print(num)
```

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

```
>>> ===== RESTART: F:\IBM programs\Prime number series upto given number.py =====
Enter the number upto which prime numbers are found : 100
Prime numbers between 1 and 100 are:
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97
>>>
```

Question-4:

write a python program to generate Fibonacci Series?

Solution:

```
number = int(input("enter the number :"))
```

```
def Fibonacci(n):
```

```
    if n < 0:
```

```
        print("Incorrect input")
```

```
    # Check if n is 0
```

```
    # then it will return 0
```

```
    elif n == 0:
```

```
        return 0
```

```
    # Check if n is 1,2
```

```
    # it will return 1
```

```
    elif n == 1 or n == 2:
```

```
        return 1
```

```
else:
```

```
    return Fibonacci(n-1) + Fibonacci(n-2)
```

```
print(Fibonacci(number))
```

