

Assignment -1
Python Programming

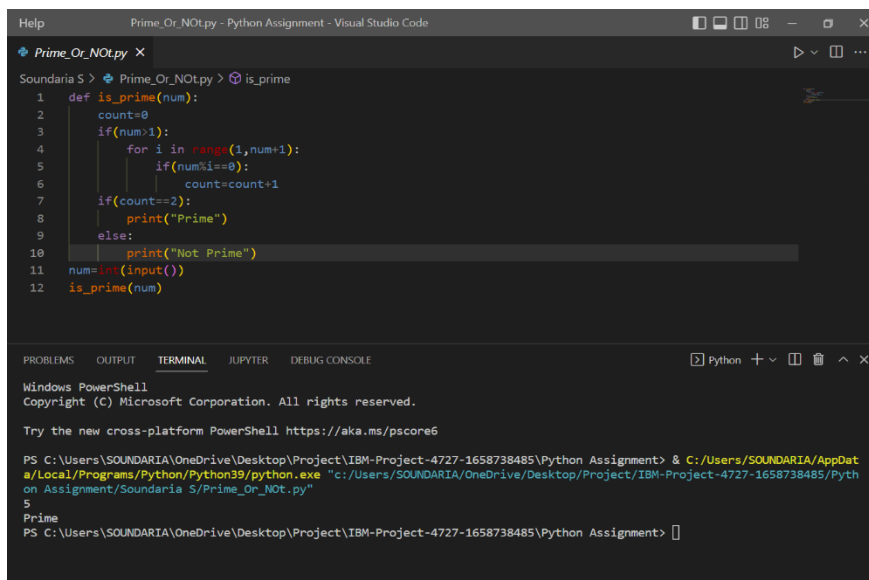
Assignment Date	19 September 2022
Student Name	Ms. Soundaria S
Student Roll Number	711319CS155
Maximum Marks	2 Marks

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

Solution:

```
def is_prime(num):
    count=0
    if(num>1):
        for i in range(1,num+1):
            if(num%i==0):
                count=count+1
    if(count==2):
        print("Prime")
    else:
        print("Not Prime")
num=int(input())
is_prime(num)
```

Output:



```
def is_prime(num):
    count=0
    if(num>1):
        for i in range(1,num+1):
            if(num%i==0):
                count=count+1
    if(count==2):
        print("Prime")
    else:
        print("Not Prime")
num=int(input())
is_prime(num)
```

Windows PowerShell
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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

```
PS C:\Users\SOUNDARIA\OneDrive\Desktop\Project\IBM-Project-4727-1658738485\Python Assignment> & C:/Users/SOUNDARIA/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/SOUNDARIA/OneDrive/Desktop/Project/IBM-Project-4727-1658738485/Python Assignment/Soundaria S/Prime_Or_NOT.py"
5
Prime
PS C:\Users\SOUNDARIA\OneDrive\Desktop\Project\IBM-Project-4727-1658738485\Python Assignment>
```

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

Solution:

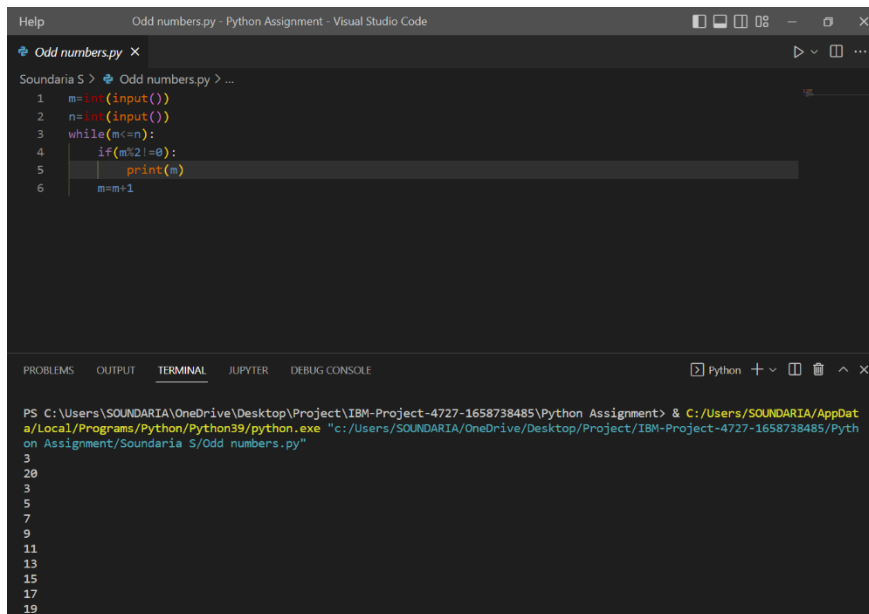
```
m=int(input())
n=int(input())
while(m<=n):
```

```

if(m%2!=0):
    print(m)
m=m+1

```

Output:



The screenshot shows a Visual Studio Code window with a file named 'Odd numbers.py'. The code in the editor is as follows:

```

1 m=int(input())
2 n=int(input())
3 while(m<=n):
4     if(m%2!=0):
5         print(m)
6     m=m+1

```

The terminal at the bottom shows the command prompt running the script. The output of the program is a list of odd numbers from 3 to 19, each on a new line:

```

PS C:\Users\SOUNDARIA\OneDrive\Desktop\Project\IBM-Project-4727-1658738485\Python Assignment> & C:/Users/SOUNDARIA/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/SOUNDARIA/OneDrive/Desktop/Project/IBM-Project-4727-1658738485/Python Assignment/Soundaria S/Odd numbers.py"
3
20
3
5
7
9
11
13
15
17
19

```

3. Write a program to generate a prime number series upto a given number.

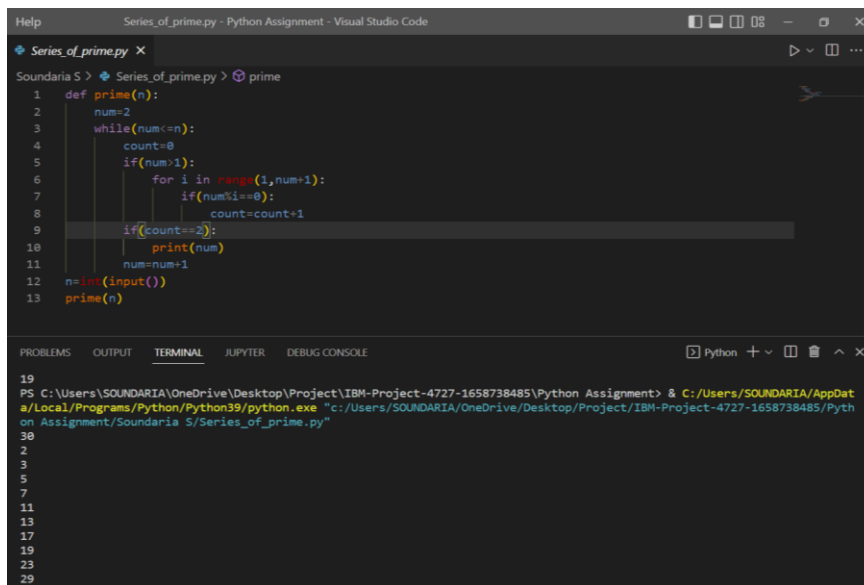
Solution:

```

def prime(n):
    num=2
    while(num<=n):
        count=0
        if(num>1):
            for i in range(1,num+1):
                if(num%i==0):
                    count=count+1
            if(count==2):
                print(num)
            num=num+1
n=int(input())
prime(n)

```

Output:



The screenshot shows a Visual Studio Code window with a file named `Series_of_prime.py`. The code defines a `prime(n)` function that prints prime numbers up to `n`. The terminal output shows the execution of the program, which prints the first 10 prime numbers: 2, 3, 5, 7, 11, 13, 17, 19, 23, and 29.

```
def prime(n):
    num=2
    while(num<=n):
        count=0
        if(num>1):
            for i in range(1,num+1):
                if(num%i==0):
                    count=count+1
            if(count==2):
                print(num)
            num=num+1
n=int(input())
prime(n)
```

```
PS C:\Users\SOUNDARIA\OneDrive\Desktop\Project\IBM-Project-4727-1658738485\Python Assignment> & C:/Users/SOUNDARIA/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/SOUNDARIA/OneDrive/Desktop/Project/IBM-Project-4727-1658738485/Python Assignment/Soundaria S/Series_of_prime.py"
2
3
5
7
11
13
17
19
23
29
```

4. Write a python program to generate Fibonacci series.

Solution:

```
n=int(input())
n1, n2 = 0, 1
count = 0
if n <= 0:
    print("Please enter a positive integer")
elif n == 1:
    print("Fibonacci sequence upto",n,":")
    print(n1)
else:
    print("Fibonacci sequence:")
    while count < n:
        print(n1)
        nth = n1 + n2
        n1 = n2
        n2 = nth
        count += 1
```

Output:

```
Soundaria S > Fibonacci.py ...
1  n=int(input())
2  n1, n2 = 0, 1
3  count = 0
4  if n <= 0:
5      print("Please enter a positive integer")
6  elif n == 1:
7      print("Fibonacci sequence upto",n,":")
8      print(n1)
9  else:
10     print("Fibonacci sequence:")
11     while count < n:
12         print(n1)
13         nth = n1 + n2
14         n1 = n2
15         n2 = nth

PROBLEMS  OUTPUT  TERMINAL  JUPYTER  DEBUG CONSOLE
Python + - [ ] [ ] [ ] [ ] [ ]

19
23
29
PS C:\Users\SOUNDARIA\OneDrive\Desktop\Project\IBM-Project-4727-1658738485\Python Assignment> & C:/Users/SOUNDARIA/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/SOUNDARIA/OneDrive/Desktop/Project/IBM-Project-4727-1658738485/Python Assignment/Soundaria S/Fibonacci.py"
7
Fibonacci sequence:
0
1
1
2
3
5
8
PS C:\Users\SOUNDARIA\OneDrive\Desktop\Project\IBM-Project-4727-1658738485\Python Assignment>

Ln 9, Col 6  Spaces: 3  UTF-8  CRLF  Python 3.9.5 64-bit
```