

Assignment -1

Python Programming

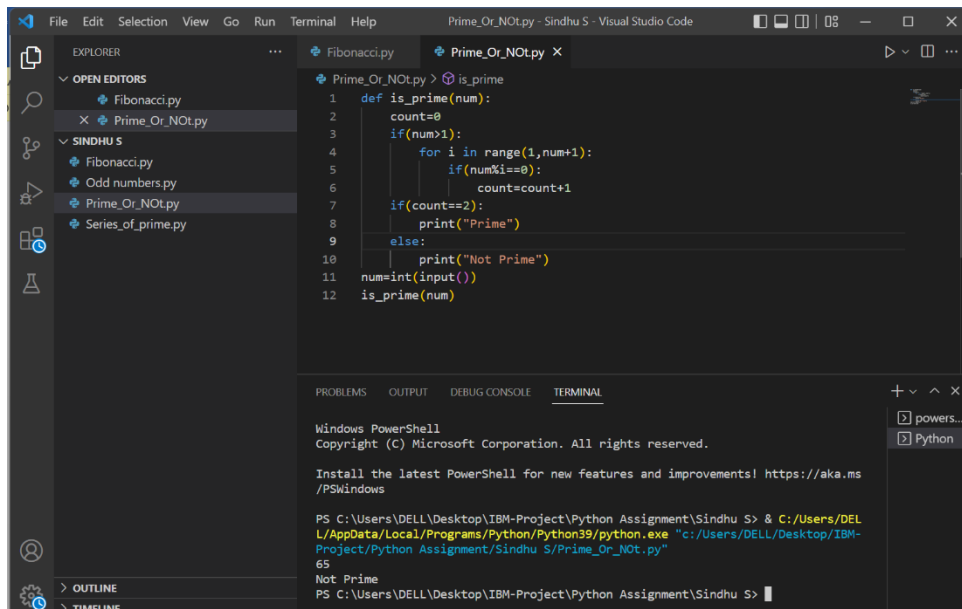
Assignment Date	19 September 2022
Student Name	Ms. Sindhu S
Student Roll Number	711319CS15
Maximum Marks	2 Marks

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:



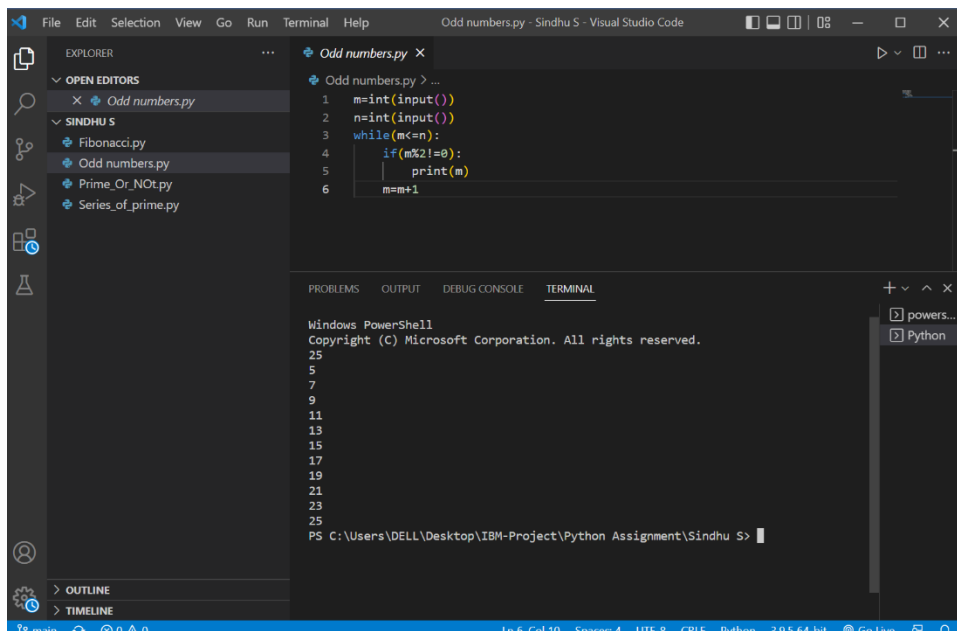
The screenshot shows the Visual Studio Code interface. The Explorer pane on the left lists files: Fibonacci.py, Prime_Or_NOT.py, and Series_of_prime.py. The main editor displays the Python code for the is_prime function. The Output pane at the bottom shows the execution results: "65", "Not Prime", and the command prompt prompt "PS C:\Users\DELL\Desktop\IBM-Project\Python Assignment\Sindhu S>".

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:

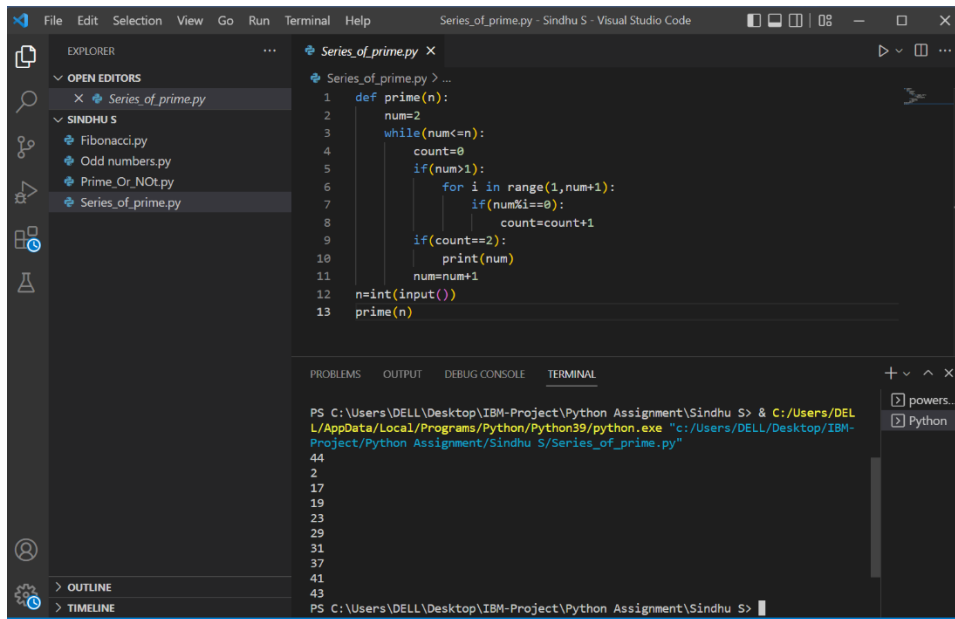
A screenshot of the Visual Studio Code editor interface. The Explorer sidebar on the left shows a project named 'SINDHU S' with several Python files, including 'Odd numbers.py'. The main editor window displays the code for 'Odd numbers.py', which is the same code as in the previous block. Below the editor, the TERMINAL panel is open, showing the output of the program. It displays a Windows PowerShell prompt where the user has entered '25', and the program has printed the odd numbers from 1 to 25: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25. The status bar at the bottom indicates the file is 'In: 5 Col: 10' and the Python interpreter is 'Python - 3.9.5 64-bit'.

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 the Visual Studio Code interface. The Explorer panel on the left shows a project named 'SINDHU S' with files 'Fibonacci.py', 'Odd numbers.py', 'Prime_Or_NOT.py', and 'Series_of_prime.py'. The main editor displays the code for 'Series_of_prime.py':

```
1 def prime(n):
2     num=2
3     while(num<=n):
4         count=0
5         if(num>1):
6             for i in range(1,num+1):
7                 if(num%i==0):
8                     count=count+1
9             if(count==2):
10                print(num)
11                num=num+1
12 n=int(input())
13 prime(n)
```

The bottom panel shows the TERMINAL output:

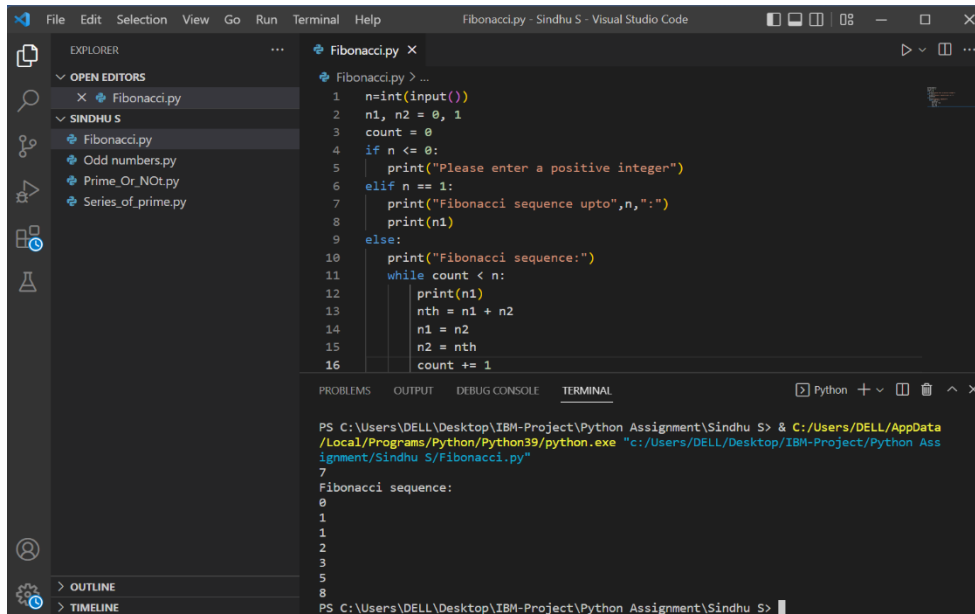
```
PS C:\Users\DELL\Desktop\IBM-Project\Python Assignment\Sindhu S> & C:/Users/DELL/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/DELL/Desktop/IBM-Project/Python Assignment/Sindhu S/Series_of_prime.py"
44
2
17
19
23
29
31
37
41
43
PS C:\Users\DELL\Desktop\IBM-Project\Python Assignment\Sindhu S>
```

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:



The screenshot displays the Visual Studio Code interface with a Python file named `Fibonacci.py` open. The code in the editor is as follows:

```
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
16        count += 1
```

The bottom panel shows the TERMINAL output, which includes the command used to run the script and the resulting Fibonacci sequence for the input value 7:

```
PS C:\Users\DELL\Desktop\IBM-Project\Python Assignment\Sindhu S> & C:/Users/DELL/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/DELL/Desktop/IBM-Project/Python Assignment/Sindhu S/Fibonacci.py"
7
Fibonacci sequence:
0
1
1
2
3
5
8
```