

IBM ASSIGNMENT 1

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

Program:

```
num = int(input("Enter a number: "))
flag = False
if num > 1:
    for i in range(2, num):
        if (num % i) == 0:
            flag = True
            break
if flag:
    print(num, "is not a prime number")
else:
    print(num, "is a prime number")
```



```
1 num = int(input("Enter a number: "))
2 flag = False
3 if num > 1:
4     for i in range(2, num):
5         if (num % i) == 0:
6             flag = True
7             break
8 if flag:
9     print(num, "is not a prime number")
10 else:
11     print(num, "is a prime number")
12
```

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

PS C:\Users\Admin\Desktop\New folder> & C:/Users/Admin/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/Admin/Desktop/New folder/First.py"
Enter a number: 5
5 is a prime number
PS C:\Users\Admin\Desktop\New folder>

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

Program:

```
m= int(input(" Please Enter the Maximum Value : "))
```

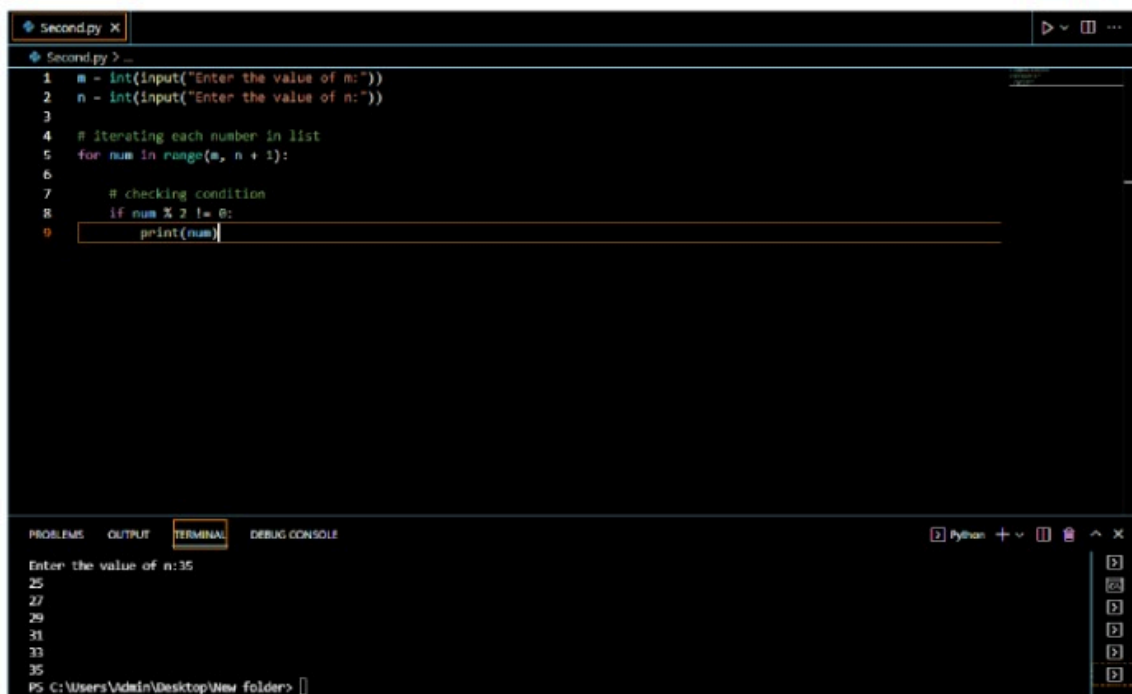
```
number = 1
```

```
while number <= maximum:
```

```
    if(number % 2 != 0):
```

```
        print("{0}".format(number))
```

```
    number = number + 1
```



```
Second.py X
1 m = int(input("Enter the value of m:"))
2 n = int(input("Enter the value of n:"))
3
4 # iterating each number in list
5 for num in range(m, n + 1):
6
7     # checking condition
8     if num % 2 != 0:
9         print(num)
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

Enter the value of m:25
25
27
29
31
33
35
PS C:\Users\vidin\Desktop\New folder>

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

Program:

```
num = int(input("Enter the Number"))
for number in range(1,num+1):
    if number>1:15

    for i in range(2,number):
        if (number%i)==0:
            break
        else:
            print(number)
```



The screenshot shows a Python IDE with a file named 'Third.py'. The code in the editor is as follows:

```
1 num = int(input("Enter the Number"))
2 for number in range(1,num+1):
3     if number>1:15
4
5     for i in range(2,number):
6         if (number%i)==0:
7             break
8         else:
9             print(number)
10
```

The bottom panel of the IDE shows the 'TERMINAL' output:

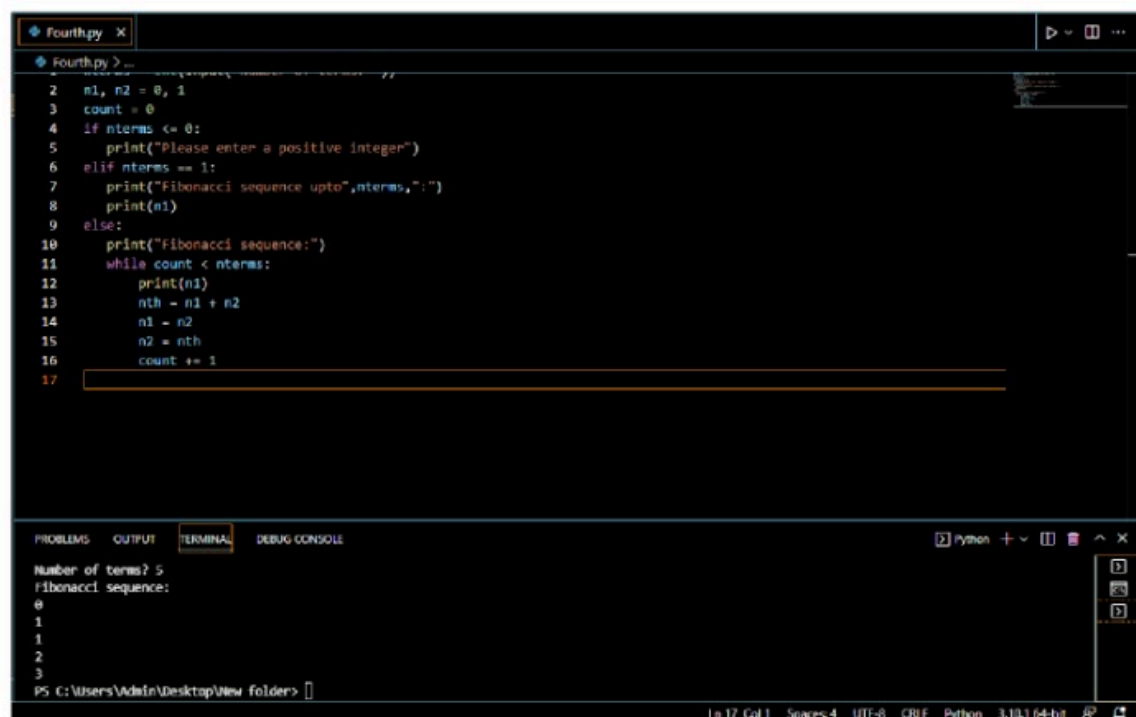
```
older/Second.py"
Enter the Number15
2
3
5
7
11
13
PS C:\Users\Vidwin\Desktop\New folder>
```

On the right side of the terminal panel, there is a list of open shells: powershell, cmd, and Python.

4. Write a python program to generate fibonacci series

Program:

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



The screenshot shows a Python IDE window titled 'Fourth.py'. The code in the editor is as follows:

```
1 n1, n2 = 0, 1
2 count = 0
3
4 if nterms <= 0:
5     print("Please enter a positive integer")
6 elif nterms == 1:
7     print("Fibonacci sequence upto",nterms,":")
8     print(n1)
9 else:
10    print("Fibonacci sequence:")
11    while count < nterms:
12        print(n1)
13        nth = n1 + n2
14        n1 = n2
15        n2 = nth
16        count += 1
17
```

The bottom panel shows the 'TERMINAL' output:

```
Number of terms? 5
Fibonacci sequence:
0
1
1
2
3
```

The status bar at the bottom indicates: 'Ln 17, Col 1 Spaces: 4 UTF-8 CRLF Python 3.10.1 64-bit'.