

IBM ASSIGNMENT 1

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

Program

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

```
if n > 1:
```

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

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

```
print(n, "is not a prime number")
```

```
break
```

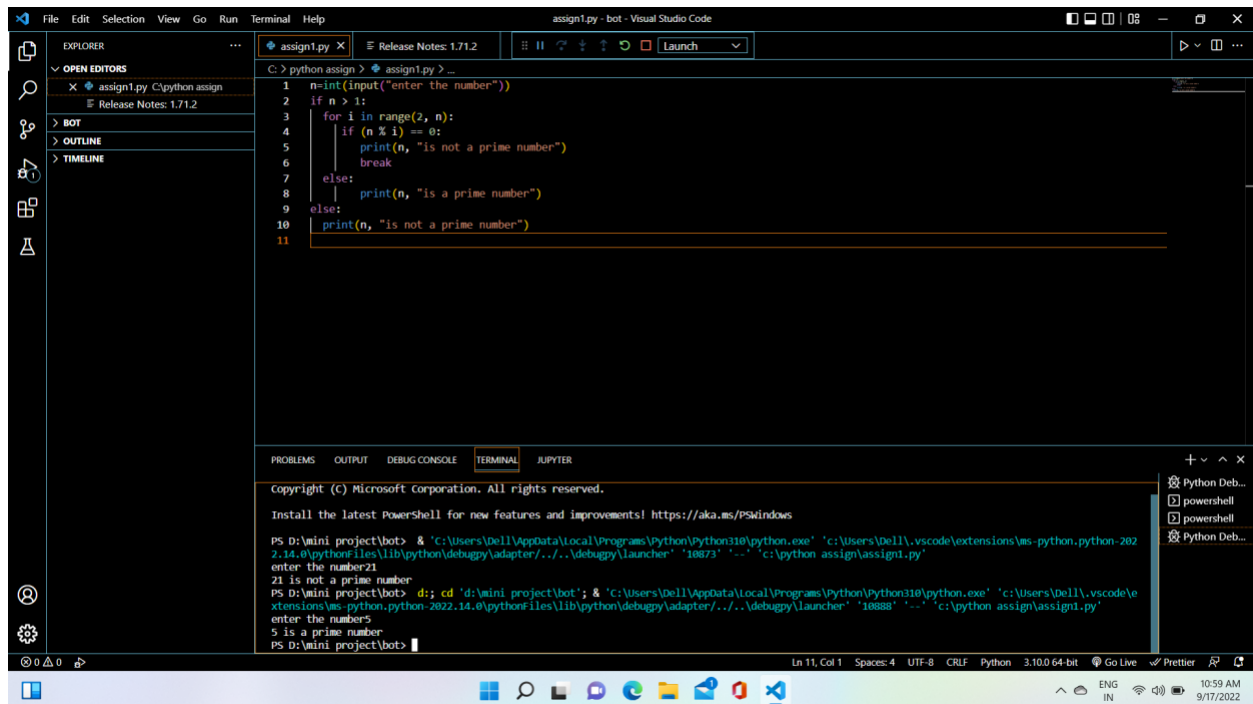
```
else:
```

```
print(n, "is a prime number")
```

```
else:
```

```
print(n, "is not a prime number")
```

OUTPUT:



```
File Edit Selection View Go Run Terminal Help
assign1.py - bot - Visual Studio Code
EXPLORER
  OPEN EDITORS
    assign1.py C:\python assign
  BOT
  OUTLINE
  TIMELINE
  PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
  Copyright (c) Microsoft corporation. All rights reserved.
  Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
  PS D:\mini project\bot> & 'c:\Users\Dell\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\Dell\.vscode\extensions\ms-python.python-2022.14.0\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '10873' '-...' 'c:\python assign\assign1.py'
  enter the number21
  21 is not a prime number
  PS D:\mini project\bot> d:; cd 'd:\mini project\bot'; & 'c:\Users\Dell\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\Dell\.vscode\extensions\ms-python.python-2022.14.0\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '10888' '-...' 'c:\python assign\assign1.py'
  enter the number5
  5 is a prime number
  PS D:\mini project\bot>
```

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

Program:

```
first=int(input("enter the 1st number"))
```

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

```
for n in range(first,last + 1):
```

```
if n > 1:
```

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

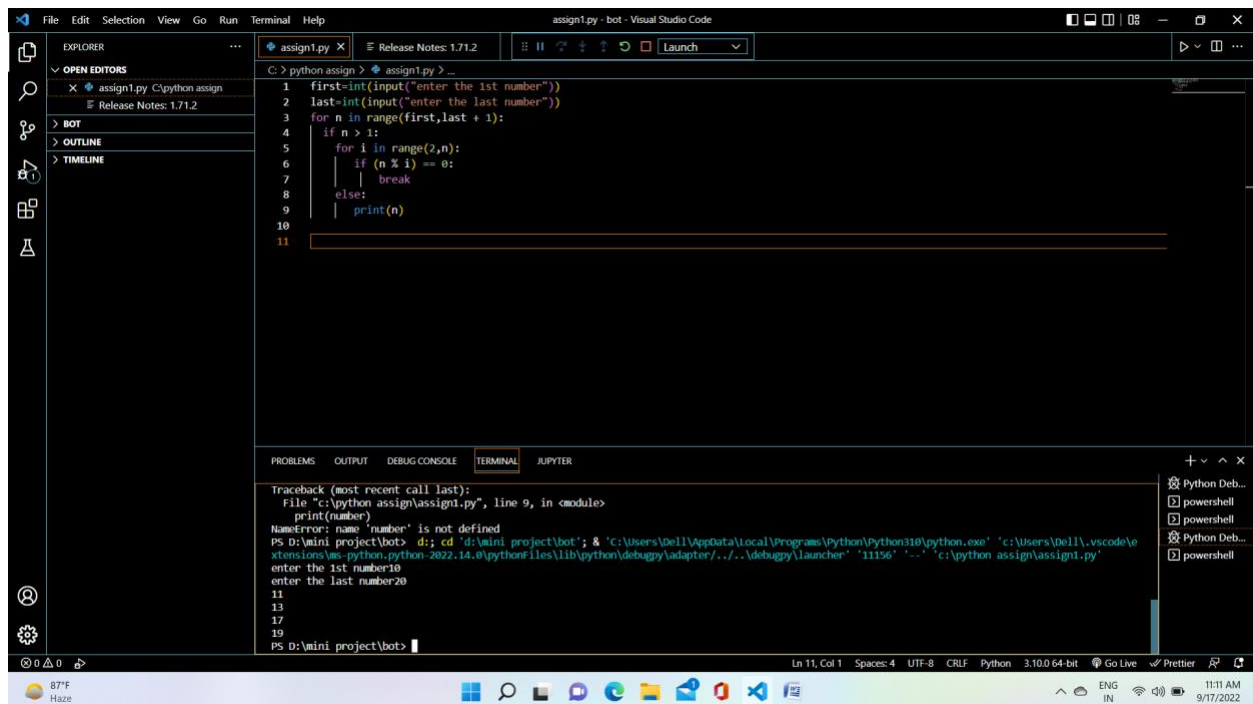
```
if (n % i) == 0:
```

```
break
```

```
else:
```

```
print(n)
```

OUTPUT:



The screenshot shows the Visual Studio Code editor with a Python file named `assign1.py`. The code is as follows:

```
1 first=int(input("enter the 1st number"))
2 last=int(input("enter the last number"))
3 for n in range(first,last + 1):
4     if n > 1:
5         for i in range(2,n):
6             if (n % i) == 0:
7                 break
8             else:
9                 print(n)
10
11
```

The terminal output shows the execution of the program:

```
PS D:\mini project\bot> python assign1.py
enter the 1st number:10
enter the last number:20
11
13
17
19
PS D:\mini project\bot>
```

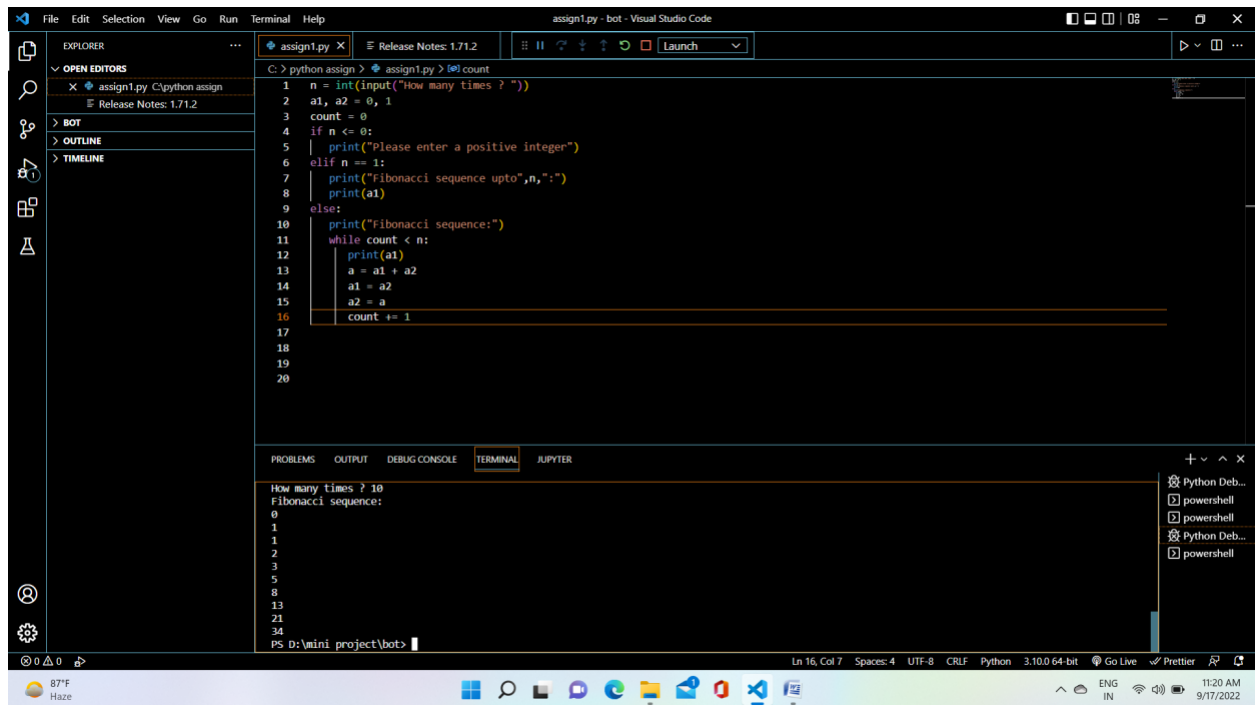
The terminal also displays a traceback for a `NameError` that occurred during the execution of the program.

3. Write a python program to generate fibonacci series

Program:

```
n = int(input("How many times ? "))
a1, a2 = 0, 1
count = 0
if n <= 0:
    print("Please enter a positive integer")
elif n == 1:
    print("Fibonacci sequence upto",n,":")
    print(a1)
else:
    print("Fibonacci sequence:")
    while count < n:
        print(a1)
        a = a1 + a2
        a1 = a2
        a2 = a
        count += 1
```

OUTPUT:



```
File Edit Selection View Go Run Terminal Help
assign1.py - bot - Visual Studio Code

EXPLORER
  OPEN EDITORS
    assign1.py C:\python assign
    Release Notes: 1.71.2
  BOT
  OUTLINE
  TIMELINE

C:\> python assign > assign1.py > | count
1 n = int(input("How many times ? "))
2 a1, a2 = 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(a1)
9 else:
10    print("Fibonacci sequence:")
11    while count < n:
12        print(a1)
13        a = a1 + a2
14        a1 = a2
15        a2 = a
16        count += 1
17
18
19
20

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
How many times ? 10
Fibonacci sequence:
0
1
1
2
3
5
8
13
21
34
PS D:\mini project\bot>
```

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

Program:

```
m=int(input("enter the 1st number"))
```

```
n=int(input("enter the last number"))
```

```
p=m
```

```
while (p<=n):
```

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

```
        print(p)
```

```
    p+=1
```

OUTPUT:

