

ASSIGNMENT – 1

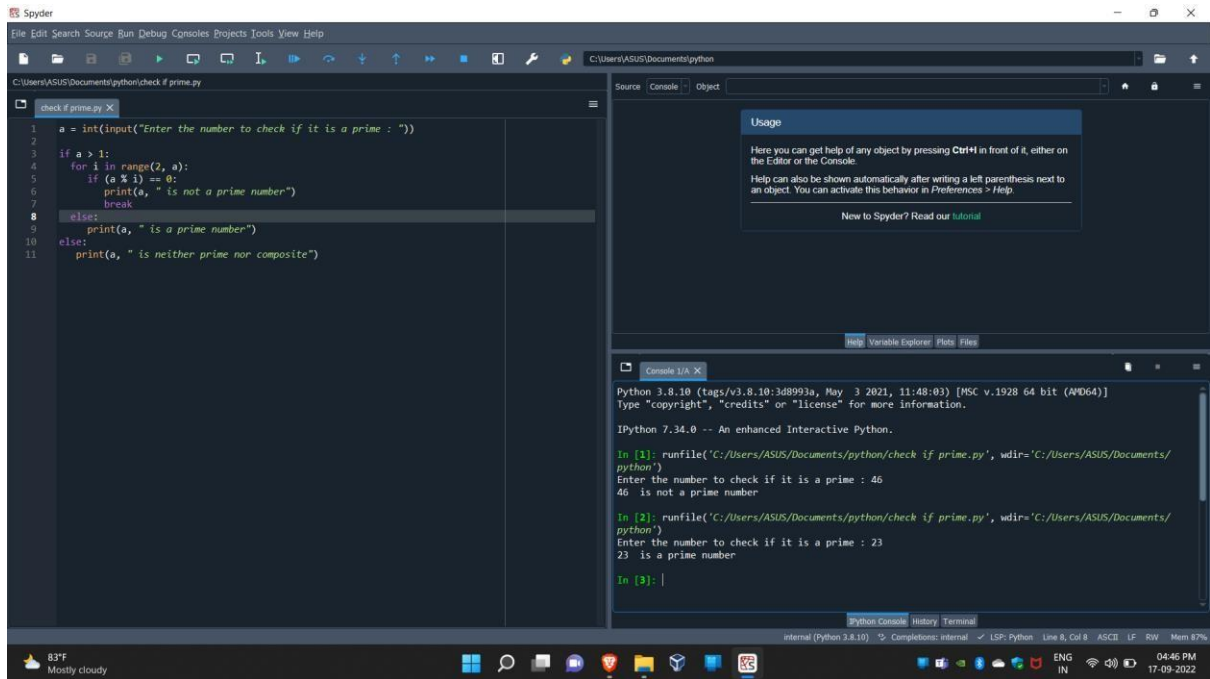
TEAM ID	PNT2022TMID33820
PROJECT NAME	PERSONAL EXPENSE TRACKER APPLICATION
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1.Check if prime or not:

Program:

```
a = int(input("Enter the number to check if it is a prime : "))
if a > 1:
    for i in range(2, a):
        if (a % i) == 0:
            print(a, " is not a prime number")
            break
    else:
        print(a, " is a prime number")
else:
    print(a, " is neither prime nor composite")
```

Output:



2.Generate odd number from m to n using while loop:

Program:

```
print("Finding odd numbers in a given range....")

m = int(input("From : "))

n = int(input("To :"))

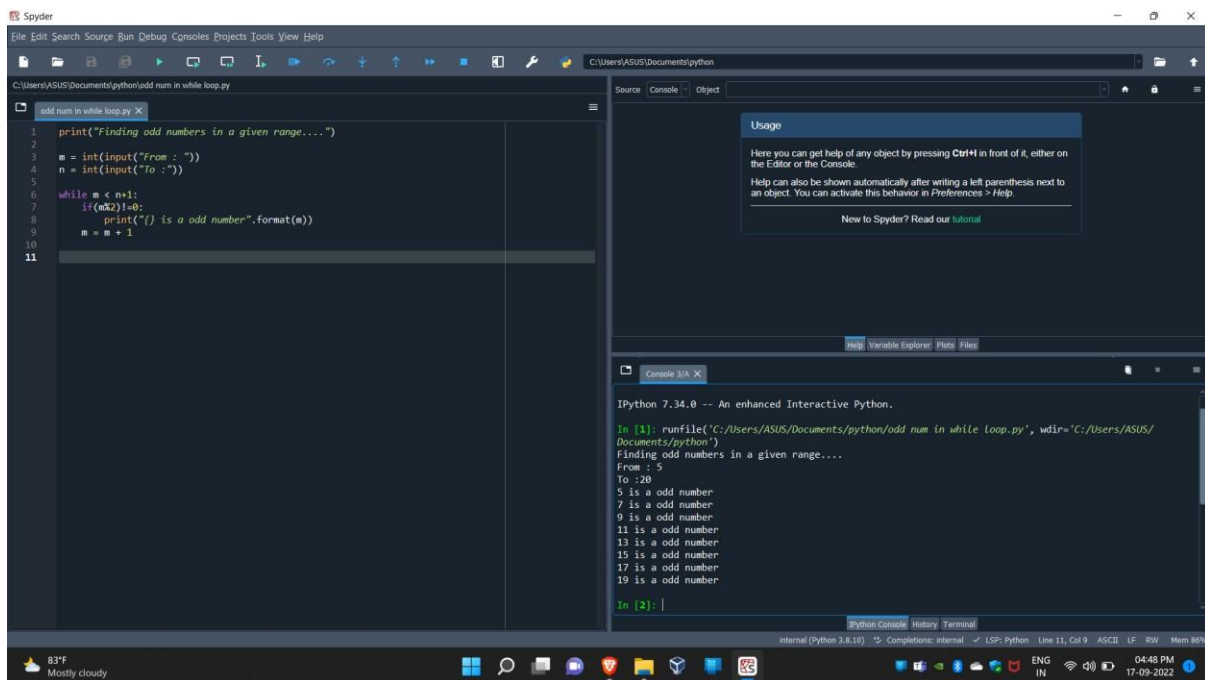
while m < n+1:

    if(m%2)!=0:

        print("{} is a odd number".format(m))

    m = m + 1
```

Output:



The screenshot displays the Spyder Python IDE interface. The editor window on the left contains the following Python code:

```
1 print("Finding odd numbers in a given range....")
2
3 m = int(input("From : "))
4 n = int(input("To :"))
5
6 while m < n+1:
7     if(m%2)!=0:
8         print("{} is a odd number".format(m))
9     m = m + 1
10
11
```

The right-hand side of the IDE shows the IPython console with the following output:

```
IPython 7.34.0 -- An enhanced Interactive Python.

In [1]: runfile('C:/Users/ASUS/Documents/python/odd num in while loop.py', wdir='C:/Users/ASUS/
Documents/python')
Finding odd numbers in a given range....
From : 5
To : 20
5 is a odd number
7 is a odd number
9 is a odd number
11 is a odd number
13 is a odd number
15 is a odd number
17 is a odd number
19 is a odd number

In [2]:
```

The console output confirms that the program correctly identifies and prints all odd numbers between 5 and 20. The Windows taskbar at the bottom shows the system time as 04:48 PM on 17-09-2022.

3.Display prime number series upto given number:

Program:

```
a = int(input("Enter the lower bound: "))
b = int(input("Enter the upper bound: "))

for i in range(a,b+1):

    if i > 1:

        for j in range(2, i):

            if (i % j) == 0:

                break

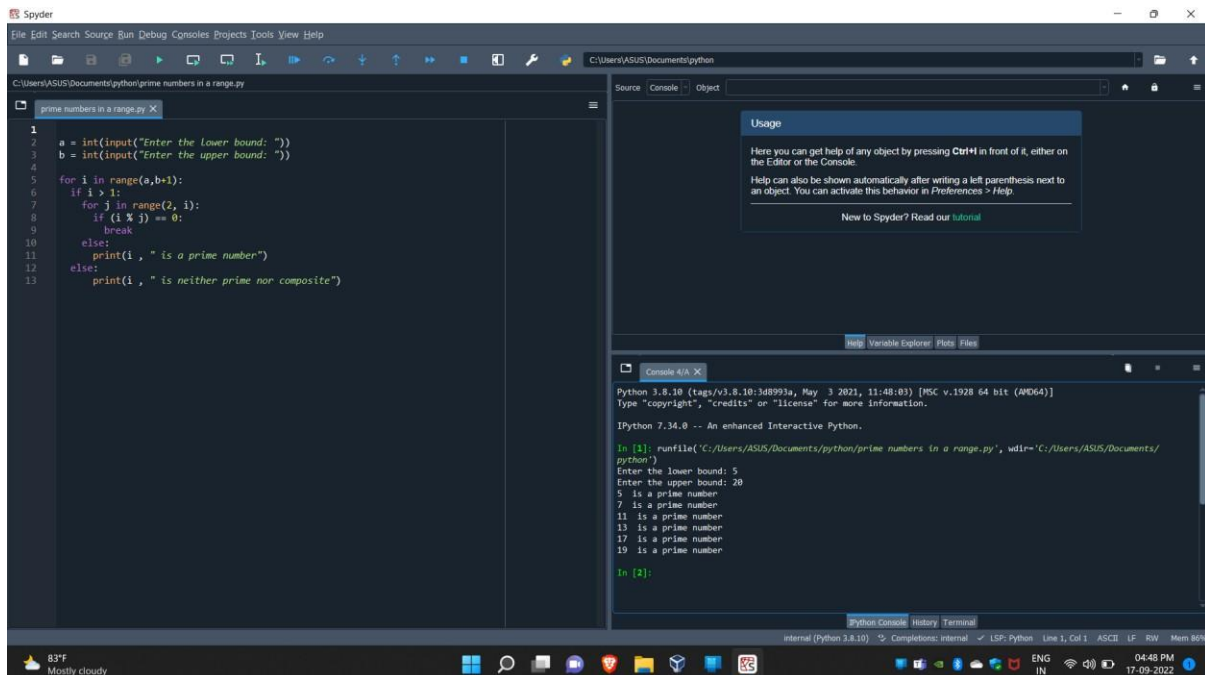
        else:

            print(i , " is a prime number")

    else:

        print(i , " is neither prime nor composite")
```

Output:



The screenshot shows the Spyder Python IDE interface. The main editor window displays a Python script named 'prime numbers in a range.py'. The script prompts the user for a lower bound and an upper bound, then iterates through the range to identify prime numbers. The console window on the right shows the output of the script, which lists prime numbers between 5 and 20. The status bar at the bottom indicates the system is at 83°F, mostly cloudy, and the time is 04:48 PM on 17-09-2022.

```
1 a = int(input("Enter the lower bound: "))
2 b = int(input("Enter the upper bound: "))
3
4
5 for i in range(a,b+1):
6     if i > 1:
7         for j in range(2, i):
8             if (i % j) == 0:
9                 break
10        else:
11            print(i , " is a prime number")
12    else:
13        print(i , " is neither prime nor composite")
```

Usage

Here you can get help of any object by pressing **Ctrl+H** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in **Preferences > Help**.

[New to Spyder? Read our tutorial](#)

Python 3.8.10 (tags/v3.8.10:3d8993a, May 3 2021, 11:48:03) [MSC v.1928 64 bit (AMD64)]

Type "copyright", "credits" or "license()" for more information.

Python 7.34.8 -- An enhanced Interactive Python.

```
In [1]: runfile('C:/Users/ASUS/Documents/python/prime numbers in a range.py', wdir='C:/Users/ASUS/Documents/python')
Enter the lower bound: 5
Enter the upper bound: 20
5 is a prime number
7 is a prime number
11 is a prime number
13 is a prime number
17 is a prime number
19 is a prime number

In [2]:
```

internal (Python 3.8.10) LSP: Python Line 1, Col 1 ASCI LF R/W Mem 80%

83°F Mostly cloudy 04:48 PM 17-09-2022

4.Generate Fibonacci Series:

Program:

a = 0

b = 1

n = int(input("Enter the range of fibonacci numbers you wish to find : "))

print(a)

print(b)

for i in range(0,n-2):

 fib = a + b

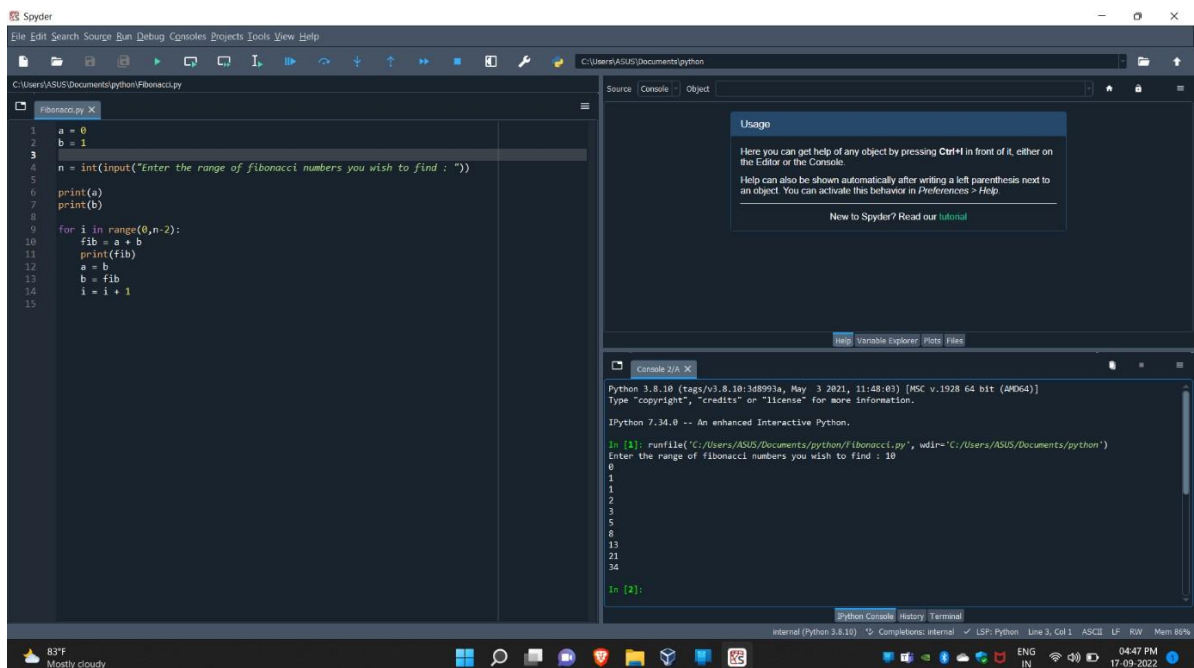
 print(fib)

 a = b

 b = fib

 i = i + 1

Output:



The screenshot displays the Spyder Python IDE interface. The left pane shows the source code for a file named 'Fibonacci.py'. The code initializes 'a' to 0 and 'b' to 1, prompts the user for a range 'n', and prints the first 'n' Fibonacci numbers. The right pane shows the IPython console with the program's execution output, which lists the Fibonacci sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34. A 'Usage' tooltip is also visible in the upper right area of the console pane.

```
1 a = 0
2 b = 1
3
4 n = int(input("Enter the range of fibonacci numbers you wish to find : "))
5
6 print(a)
7 print(b)
8
9 for i in range(0,n-2):
10     fib = a + b
11     print(fib)
12     a = b
13     b = fib
14     i = i + 1
15
```

Python 3.8.10 (tags/v3.8.10:3d8922a, May 3 2021, 11:45:03) [MSC v.1928 64 bit (AMD64)]
Type "copyright", "credits" or "license()" for more information.
IPython 7.34.0 -- An enhanced Interactive Python.
In [1]: runfile('C:/Users/ASUS/Documents/python/Fibonacci.py', wdir='C:/Users/ASUS/Documents/python')
Enter the range of fibonacci numbers you wish to find : 10
0
1
1
2
3
5
8
13
21
34
In [2]: