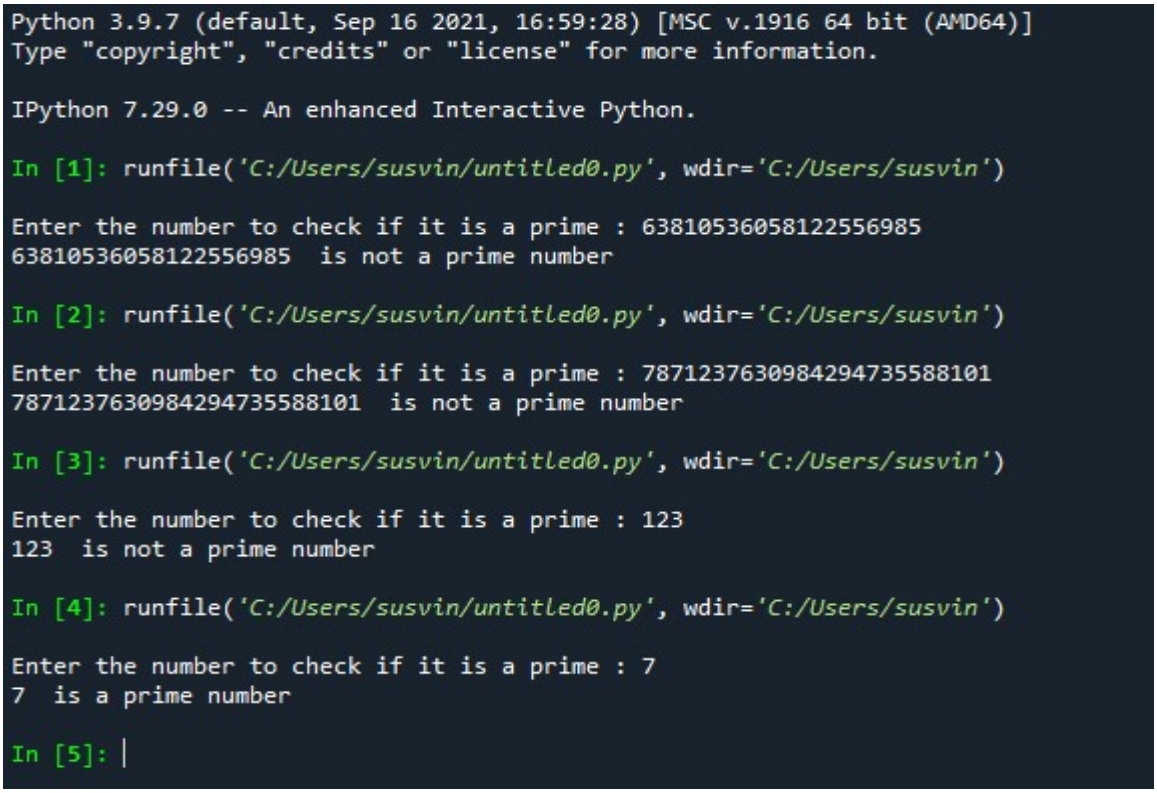
1.Write a python program to test a given number is prime or not.

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. Write a python program to 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:

```
In [7]: runfile('C:/Users/susvin/untitled1.py', wdir='C:/Users/susvin')

Enter the range of fibonacci numbers you wish to find : 10
0
1
1
2
3
5
8
13
21
34

In [8]:
```

3.Write a python program to find prime numbers within the range.

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:

```
In [12]: runfile('P:/IBM/PY files/untitled3.py', wdir='P:/IBM/PY files')

Enter the lower bound: 120

Enter the upper bound: 160
127  is a prime number
131  is a prime number
137  is a prime number
139  is a prime number
149  is a prime number
151  is a prime number
157  is a prime number

In [13]:
```

4.Write a python program to odd numbers in 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: