Assignment -3

Python Programming

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

Question-1:

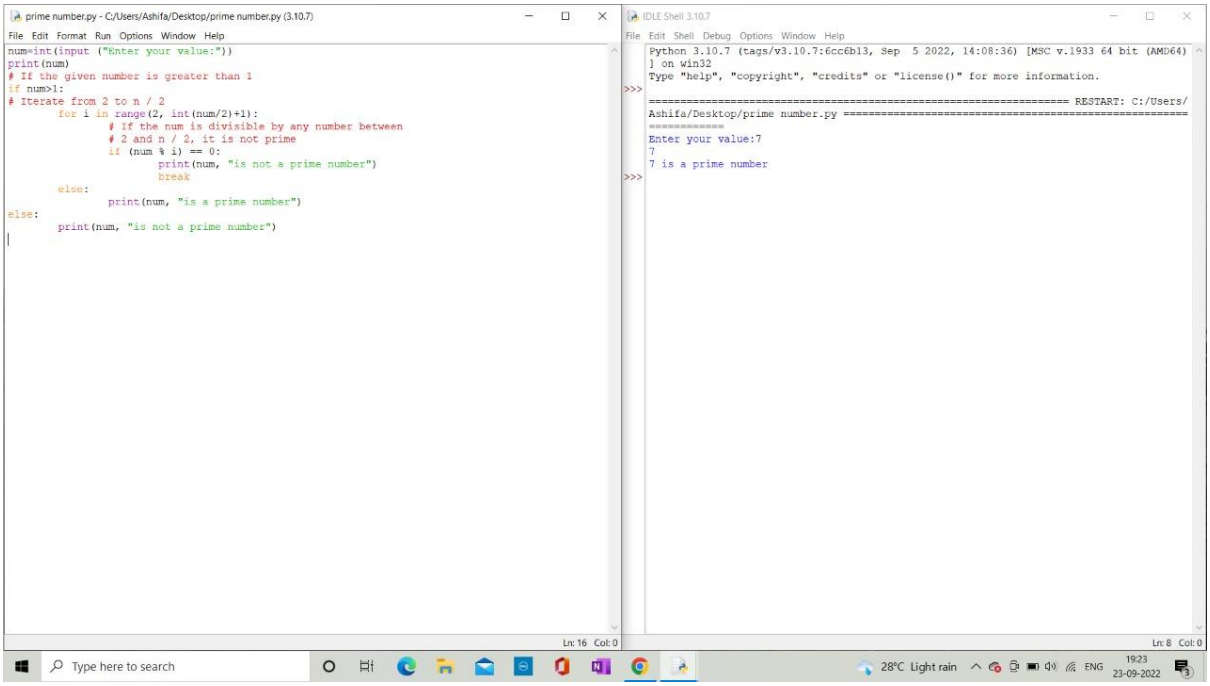
Write a python program to test a given number is prime or not.

Solution:

```
num=int(input ("Enter your value:"))
print(num)
# If given number is greater than 1
if num>1:
    # Iterate from 2 to n / 2
        for i in range(2, int(num/2)+1):
    # If num is divisible by any number between
    # 2 and n / 2, it is not prime
            if (num % i) == 0:
                print(num, "is not a prime number")
                break
            else:
                print (num, "is a prime number")
            else:
                print (num, "is not a prime number")
```

Output:

```
Enter your value: 7
7
7 is a prime number.
```



Question-2:

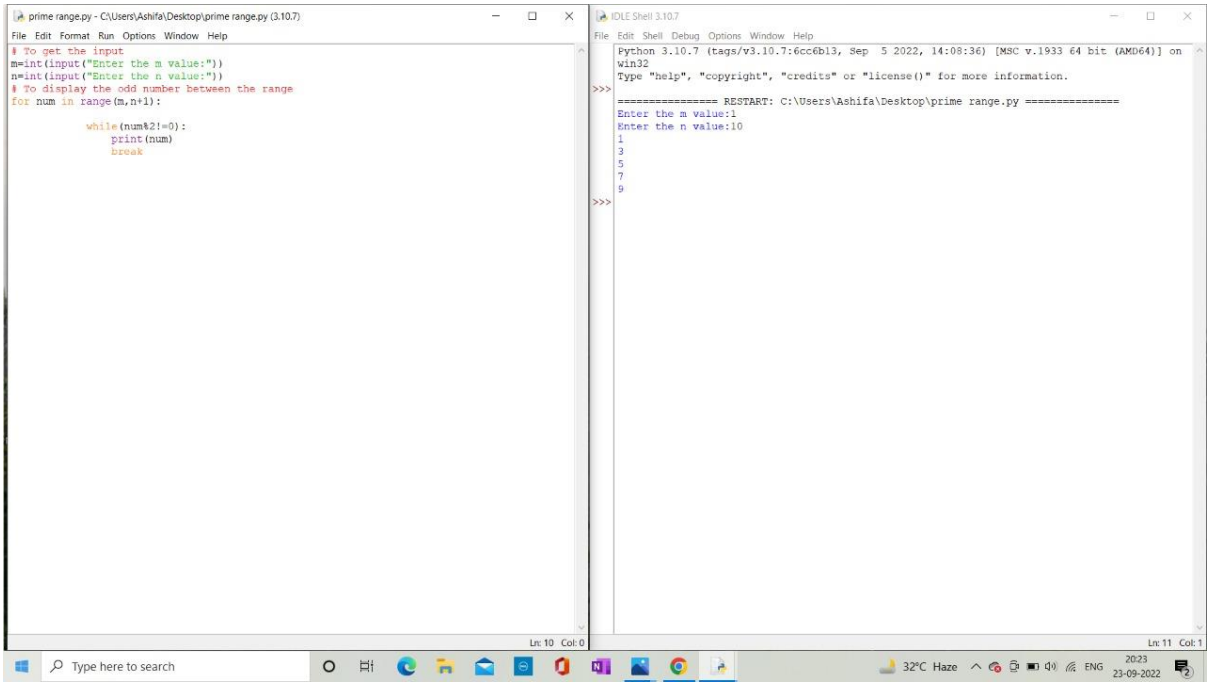
Write a program to generate odd numbers from m to n using while loop.

Solution:

```
# Python program to print odd Numbers

m=int(input("Enter the m value:"))
n=int(input("Enter the n value:"))

for num in range(m,n+1):

        while(num%2!=0):
          print(num)
          break
```

Output:

```
Enter the m value:1
Enter the n value:10
1
3
5
7
9
```



Question-3:

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

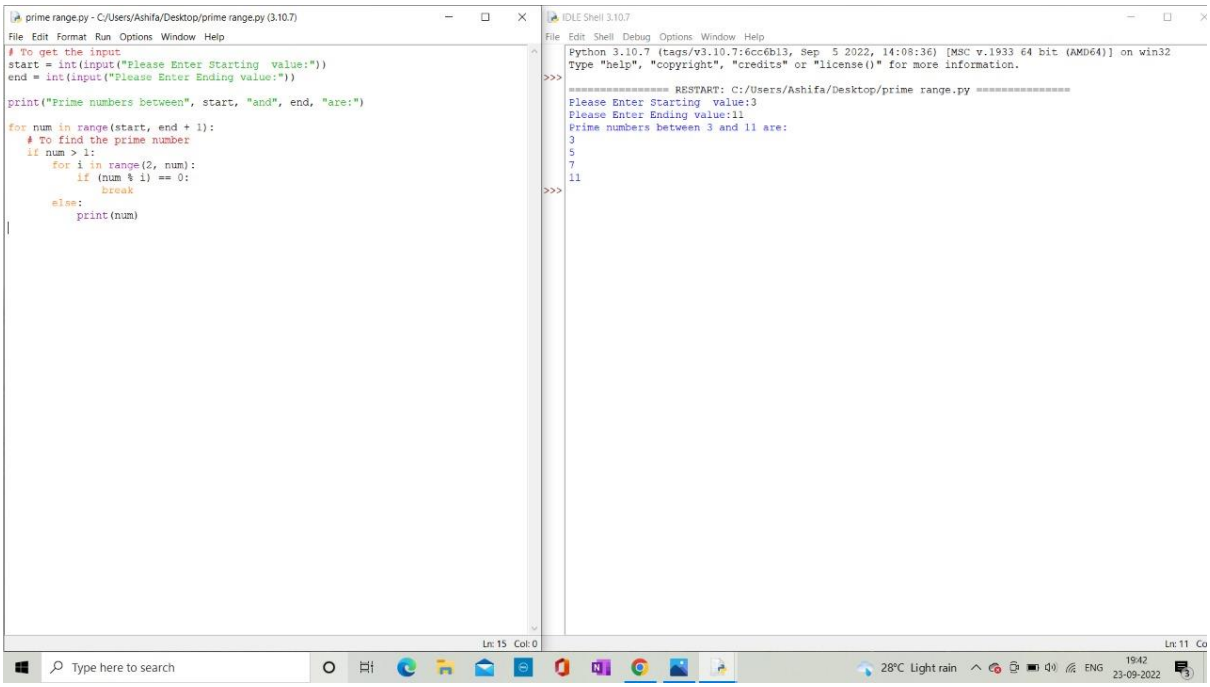
Solution:

```
# Python program to display all the prime numbers within an interval

lower = int(input("Please Enter minimum value:"))
upper = int(input("Please Enter maximum value:"))

print("Prime numbers between", lower, "and", upper, "are:")

for num in range(lower, upper + 1):
  # all prime numbers are greater than 1
  if num > 1:
     for i in range(2, num):
        if (num % i) == 0:
           break
     else:
        print(num)
```

Output:

```
Please Enter Starting Value:3
Please Enter Ending Value:11
Prime number between 3 and 11 are:
3
```

5
7
11



Question-4:

Write a python program to generate Fibonacci series.

Solution:

```
# Program to display the Fibonacci sequence up to n-th term

nterms = int(input("How many terms? "))

# first two terms
n1, n2 = 0, 1
count = 0

# check if the number of terms is valid
if nterms <= 0:
   print("Please enter a positive integer")
# if there is only one term, return n1
elif nterms == 1:
   print("Fibonacci sequence upto",nterms,":")
   print(n1)
# generate fibonacci sequence
else:
   print("Fibonacci sequence:")
   while count < nterms:
      print(n1)
```

```
    nth = n1 + n2
    # update values
    n1 = n2
    n2 = nth
    count += 1
```

Output:

```
 Number of inputs:7
 Fibonacci series:
0
1
1
2
3
5
8
```