Assignment

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Program 1:

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

```
num=int(input("enter the number:"))
if num > 1:
    for i in range(2, int(num/2)+1):
        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:

```
IDLE Shell 3.9.6
                                          File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AM
D64)1 on win32
Type "help", "copyright", "credits" or "license()" for more information.
enter the number:5
5 is a prime number
  enter the number:6
6 is not a prime number
enter the number:51
51 is not a prime number
----- RESTART: E:\1.py -----
enter the number:13
13 is a prime number
```

```
Program 2:
```

```
Write a program to generate odd numbers from m to n using while loop
start=int(input("enter the start number :"))
end=int(input("enter the end number :"))
while start<=end:
    if start%2!=0:
        print(start, end="")
    start+=1
OUTPUT:
IDLE Shell 3.9.6
                                                           X
                                                      File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AM ^
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
enter the start number :3
enter the end number :10
3579
>>>
enter the start number :3
enter the end number :25
35791113151719212325
Program 3:
Write a Python program to display prime number series up to given number.
start = int(input("Enter the start num : "))
end = int(input("Enter the min num : "))
for n in range(start, end + 1):
   if n > 1:
        for i in range(2,n):
             if (n % i) == 0:
                  break
        else:
             print(n)
```

OUTPUT:

```
×
IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AM ^
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
                  ====== RESTART: E:/3.py ======
Enter the start num : 1
Enter the min num : 18
11
13
17
>>>
Enter the start num : 13
Enter the min num : 16
13
>>>
Enter the start num : 13
Enter the min num : 25
17
19
23
```

Program 4:

Write a Python program to generate Fibonacci series.

```
num = int(input("enter the number:"))
n1, n2 = 0, 1
print("Fibonacci Series:", n1, n2, end=" ")
for i in range(2, num):
    n3 = n1 + n2
    n1 = n2
    n2 = n3
    print(n3, end=" ")

print()
```

OUTPUT:

```
IDLE Shell 3.9.6
                                               X
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AM ^
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
enter the number:10
Fibonacci Series: 0 1 1 2 3 5 8 13 21 34
enter the number:5
Fibonacci Series: 0 1 1 2 3
enter the number:15
Fibonacci Series: 0 1 1 2 3 5 8 13 21 34 55 89 144 233 377
```