Assignment -1
Python Programming

Assignment Date	19 September 2022
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Student Roll Number	917719IT063
Maximum Marks	2 Marks

Program 1:

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

CODE:

```
def isprime(num):

    for n in range(2,int(num**0.5)+1):

        if num%n==0:

            return False

    return True

num = int(input("Enter a number: "))

print(isprime(num))
```

OUTPUT:

```
C:\19IT063>python prime.py
Enter a number: 23
True

C:\19IT063>python prime.py
Enter a number: 22
False

C:\19IT063>
```

```
In [1]: runfile('C:/Users/NARMATHA/.spyder-py3/temp.py', wdir='C:/Users/NARMATHA/.spyder-py3')

Enter a number: 23
True

In [2]: runfile('C:/Users/NARMATHA/.spyder-py3/temp.py', wdir='C:/Users/NARMATHA/.spyder-py3')

Enter a number: 22
False
```

Program 2:

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

CODE:

```python
def odd(lower,upper):

        while lower <= upper:

                if(lower % 2 != 0):

                        print("{0}".format(lower))

                lower = lower + 1

lower=int(input("Enter the lower limit:"))

upper=int(input("Enter the upper limit:"))

odd(lower,upper)
```

OUTPUT:

```
C:\19IT063>python odd.py
Enter the lower limit:1
Enter the upper limit:23
1
3
5
7
9
11
13
15
17
19
21
23

C:\19IT063>
```

```
In [3]: runfile('C:/Users/NARMATHA/.spyder-py3/temp.py', wdir='C:/Users/NARMATHA/.spyder-py3')

Enter the lower limit:1

Enter the upper limit:23
1
3
5
7
9
11
13
15
17
19
21
23
```

Program 3:

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

CODE:

```
def isprime(r):

        for a in range(2,r+1):

                k=0

                for i in range(2,a//2+1):

                        if(a%i==0):

                                k=k+1

                if(k<=0):

                        print(a)

r=int(input("Enter a number to print prime number series : "))

isprime(r)
```

OUTPUT:

```
C:\19IT063>python primeseries.py
Enter a number to print prime number series : 23
2
3
5
7
11
13
17
19
23

C:\19IT063>
```

```
In [4]: runfile('C:/Users/NARMATHA/.spyder-py3/temp.py', wdir='C:/Users/NARMATHA/.spyder-py3')

Enter a number to print prime number series : 23
2
3
5
7
11
13
17
19
23
```

Program 4;

Write a Python program to generate Fibonacci series.

CODE:

def fibonacci_nums(n):

 if n <= 0:

  return [0]

 sequence = [0, 1]

 while len(sequence) <= n:

  next_value = sequence[len(sequence) - 1] + sequence[len(sequence) - 2]

```
    sequence.append(next_value)

  return sequence

num = int(input("Enter a number: "))

print(fibonacci_nums(num))
```

OUTPUT:

```
C:\19IT063>python fibonacci.py
Enter a number: 21
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946]

C:\19IT063>
```

```
In [5]: runfile('C:/Users/NARMATHA/.spyder-py3/temp.py', wdir='C:/Users/NARMATHA/.spyder-py3')

Enter a number: 21
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946]

In [6]:
```