Assignments
Python assignment - 4

Date	23 September 2022
Student Name	Ajith kumar P
Project Name	Project -Personal Expense Tracker Application
Maximum Marks	2 Marks

Prime Number

Question :

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

Solution:

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

flag = False

if num > 1:

    for i in range(2, num):

        if (num % i) == 0:

            flag = True

            Break

if flag:

    print(num, "is not a prime number")

else:

    print(num, "is a prime number")
```

```
> photoshop > products > COCM > 🐍 Untitled-1.py > ...
1    num = int(input("Enter a number :"))
2    flag = False
3    if num > 1:
4        for i in range(2, num):
5            if (num % i) == 0:
6                flag = True
7                break
8    if flag:
9        print(num, "is not a prime number")
10   else:
11       print(num, "is a prime number")
```

```
PS D:\photoshop\products\COCM>  & 'C:
hon.python-2022.14.0\pythonFiles\lib\
Enter a number :23445
23445 is not a prime number
PS D:\photoshop\products\COCM>
```

Odd Numbers from m to n

Question:

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

Solution:

```
start, end = 4, 19
for num in range(start, end + 1):
        if num % 2 != 0:
                print(num, end = " ")
```

```
start, end = 4, 19
for num in range(start, end + 1):
    if num % 2 != 0:
        print(num, end = " ")
```

```
PS D:\photoshop\products\COCM>
hon.python-2022.14.0\pythonFiles
5 7 9 11 13 15 17 19
PS D:\photoshop\products\COCM>
```

Prime Number Series

Question:

Write a program to display prime number series upto given number

Solution:

```
def isPrime(n):
if(n==1 or n==0):
        return False
    for i in range(2,n):
        if(n%i==0):
         return False
    return True
```

```
# Driver code
   N = int(input("Enter a number : "))
      for if(isPrime(i)):
          print(i,end=" ")
```

```
D: > photoshop > products > COCM > ⟳ Untitled-1.py > ⊘ i
  1   def isPrime(n):
  2       if(n==1 or n==0):
  3           return False
  4       for i in range(2,n):
  5           if(n%i==0):
  6               return False
  7
  8       return True
  9
 10
 11   # Driver code
 12   N = int(input("Enter a number : "))
 13   for i in range(N+1):
 14       if(isPrime(i)):
 15        print(i,end=" ")
 16
```

```
Enter a number : 100
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
PS D:\photoshop\products\COCM> █
```

Fibonacci Sequence from 0 to n

Question:

Write a program to To generate Fibonacci series

Solution:

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

n1, n2 = 0, 1

```python
count = 0
if nterms <= 0:
   print("Please enter a positive integer")
elif nterms == 1:
   print("Fibonacci sequence upto",nterms,":")
   print(n1)
else:
   print("Fibonacci sequence:")
   while count < nterms:
       print(n1)
       nth = n1 + n2
       n1 = n2
       n2 = nth
       count += 1
```

```python
nterms = int(input("How many terms? "))
n1, n2 = 0, 1

count = 0
if nterms <= 0:
    print("Please enter a positive integer")
elif nterms == 1:
    print("Fibonacci sequence upto",nterms,":")
    print(n1)
else:
    print("Fibonacci sequence:")
    while count < nterms:
        print(n1)
        nth = n1 + n2
        n1 = n2
        n2 = nth
        count += 1
```

```
How many terms? 10
Fibonacci sequence:
0
1
1
2
3
5
8
13
21
34
```