Assignments
Python assignment - 4

Date	09 November 2022
Student Name	PNT2022TMID29623
Project Name	Project -Skill and Job recommender 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 :"))

# To take input from the user

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

# define a flag variable

flag = False

# prime numbers are greater than 1

if num > 1:

    # check for factors

    for i in range(2, num):

        if (num % i) == 0:

            # if factor is found, set flag to True

            flag = True

            # break out of loop

            break


# check if flag is True

if flag:

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

else:

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

```
1   num = int(input("Enter a number :"))
2
3   # To take input from the user
4   #num = int(input("Enter a number: "))
5
6   # define a flag variable
7   flag = False
8
9   # prime numbers are greater than 1
10  if num > 1:
11      # check for factors
12      for i in range(2, num):
13          if (num % i) == 0:
14              # if factor is found, set flag to True
15              flag = True
16              # break out of loop
17              break
18
19  # check if flag is True
20  if flag:
21      print(num, "is not a prime number")
22  else:
23      print(num, "is a prime number")
24
```

```
Enter a number :11
11 is a prime number
```

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

# iterating each number in list

for num in range(start, end + 1):

        # checking condition

        if num % 2 != 0:

                print(num, end = " ")
```

```
 1    # Python program to print odd Numbers  5 7 9 11 13 15 17 19 ▮
 2
 3    start, end = 4, 19
 4
 5    # iterating each number in list
 6    for num in range(start, end + 1):
 7        # checking condition
 8        if num % 2 != 0:
 9            print(num, end = " ")
10
11
12
13
14
15
16
17
18
```

Prime Number Series

Question:

Write a program to display prime number series upto given number

Solution:

#function to check if a given number is prime

def isPrime(n):

#since 0 and 1 is not prime return false.

   if(n==1 or n==0):

      return False

   #Run a loop from 2 to n-1

   for i in range(2,n):

      #if the number is divisible by i, then n is not a prime number.

      if(n%i==0):

       return False

   #otherwise, n is prime number.

   return True

```
# Driver code
N = int(input("Enter a number : "))
#check for every number from 1 to N
for i in range(1,N+1):
#check if current number is prime
    if(isPrime(i)):
        print(i,end=" ")
```


Fibonacci Sequence from 0 to n

Question:

Write a program to To generate Fibonacci series

Solution:

```
nterms = int(input("How many terms? "))
# first two 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)
# generate fibonacci sequence
else:
    print("Fibonacci sequence:")
    while count < nterms:
        print(n1)
        nth = n1 + n2
        # update values
        n1 = n2
        n2 = nth
        count += 1
```

```
1    # Program to display the Fibonacci sequence up
2
3    nterms = int(input("How many terms? "))
4
5    # first two terms
6    n1, n2 = 0, 1
7    count = 0
8
9    # check if the number of terms is valid
10   if nterms <= 0:
11       print("Please enter a positive integer")
12   # if there is only one term, return n1
13   elif nterms == 1:
14       print("Fibonacci sequence upto",nterms,":")
15       print(n1)
16   # generate fibonacci sequence
17   else:
18       print("Fibonacci sequence:")
19       while count < nterms:
20           print(n1)
21           nth = n1 + n2
22           # update values
23           n1 = n2
24           n2 = nth
25           count += 1
26
27
28
29
```

```
How many terms? 7
Fibonacci sequence:
0
1
1
2
3
5
8
```