

Assignment no - 1

Date	24.09.2022
Student Name	S.Gowthamraj
Reg.No	820419106017
Maximum Marks	2 marks

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

Solution:

```
num = 11
```

```
# 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")
```

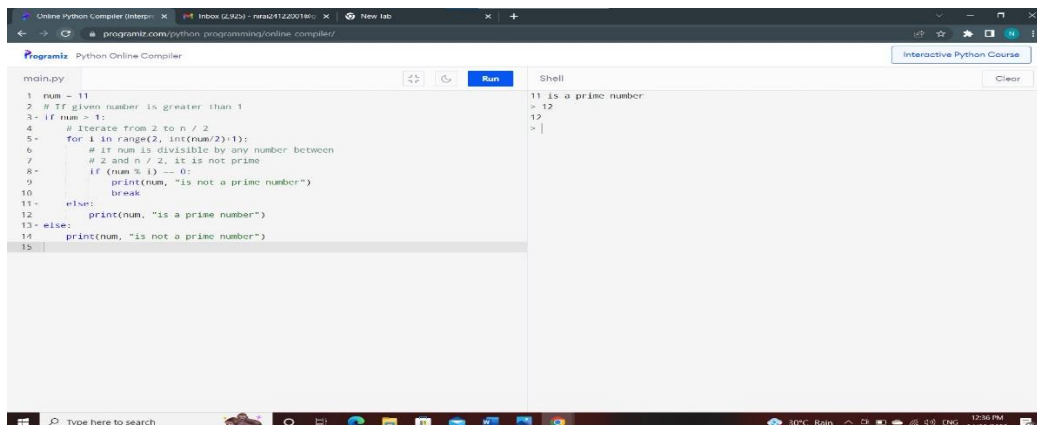
```
            break
```

```
    else:
```

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

```
else:
```

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



The screenshot shows a web browser window with the URL `programiz.com/python-programming/online-compiler/`. The page title is "Programiz Python Online Compiler". The code editor on the left contains the following Python code:

```
1 num = 11
2 # If given number is greater than 1
3 if num > 1:
4     # Iterate from 2 to n / 2
5     for i in range(2, int(num/2)+1):
6         # If num is divisible by any number between
7         # 2 and n / 2, it is not prime
8         if (num % i) == 0:
9             print(num, "is not a prime number")
10            break
11 else:
12     print(num, "is a prime number")
13 else:
14     print(num, "is not a prime number")
15
```

The output window on the right shows the result of running the code:

```
11 is a prime number
```

The bottom of the image shows a Windows taskbar with the date and time as 24/09/2022, 12:30 PM.

2.write a python program to generate odd numbers from m to n using while loop

Program:

Python program to print odd Numbers in a List

list of numbers

```
list1 = [10, 21, 4, 45, 66, 93]
```

```
i = 0
```

using while loop

```
while(i < len(list1)):
```

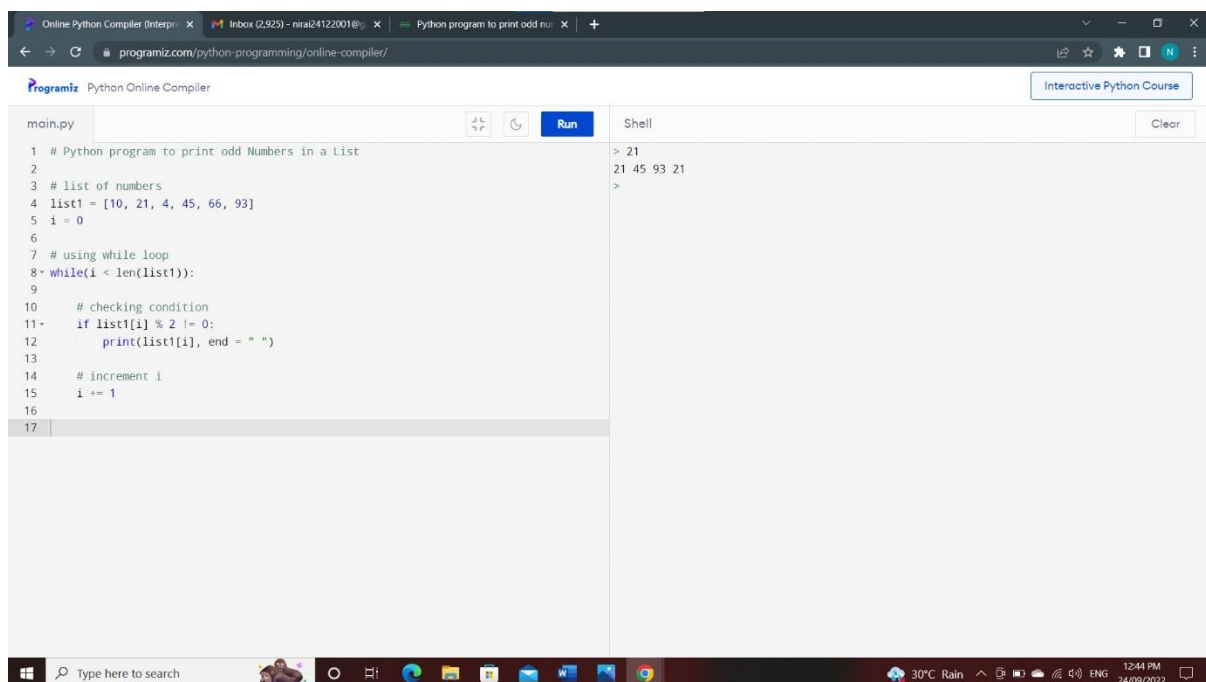
checking condition

```
if list1[i] % 2 != 0:
```

```
    print(list1[i], end = " ")
```

increment i

```
i += 1
```



The screenshot shows a web browser window with the URL `programiz.com/python-programming/online-compiler/`. The page title is "Programiz Python Online Compiler". The code editor on the left contains the following Python code:

```
1 # Python program to print odd Numbers in a List
2
3 # list of numbers
4 list1 = [10, 21, 4, 45, 66, 93]
5 i = 0
6
7 # using while loop
8 while(i < len(list1)):
9
10     # checking condition
11     if list1[i] % 2 != 0:
12         print(list1[i], end = " ")
13
14     # increment i
15     i += 1
16
17
```

The "Run" button is highlighted in blue. The output shell on the right shows the execution results:

```
> 21
21 45 93 21
>
```

The Windows taskbar at the bottom shows the system clock as 12:44 PM on 24/09/2022, with weather information for 30°C Rain.

3.write a python program to display prime number series up to given number

Program:

Python program to print all

prime number in an interval

```
def prime(x, y):
    prime_list = []
    for i in range(x, y):
        if i == 0 or i == 1:
            continue
        else:
            for j in range(2, int(i/2)+1):
                if i % j == 0:
                    break
            else:
                prime_list.append(i)
    return prime_list
```

Driver program

starting_range = 2

ending_range = 7

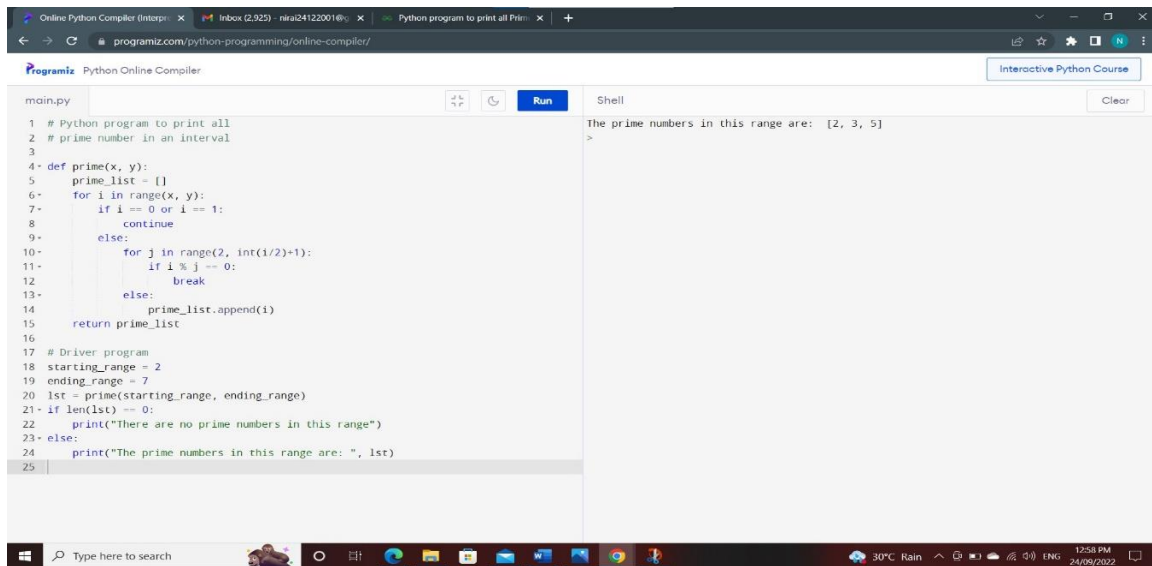
lst = prime(starting_range, ending_range)

if len(lst) == 0:

print("There are no prime numbers in this range")

else:

print("The prime numbers in this range are: ", lst)

A screenshot of a web browser displaying an online Python compiler. The browser has several tabs open, including 'Online Python Compiler (Interpr...', 'Inbox (2,925) - niral24122001@...', and 'Python program to print all Prime...'. The address bar shows 'programiz.com/python-programming/online-compiler/'. The compiler interface includes a 'Run' button and a 'Shell' output area. The code in the editor is a Python program to find prime numbers in a given range. The output in the shell shows 'The prime numbers in this range are: [2, 3, 5]'.

```
1 # Python program to print all
2 # prime number in an interval
3
4 def prime(x, y):
5     prime_list = []
6     for i in range(x, y):
7         if i == 0 or i == 1:
8             continue
9         else:
10            for j in range(2, int(i/2)+1):
11                if i % j == 0:
12                    break
13            else:
14                prime_list.append(i)
15    return prime_list
16
17 # Driver program
18 starting_range = 2
19 ending_range = 7
20 lst = prime(starting_range, ending_range)
21 if len(lst) == 0:
22     print("There are no prime numbers in this range")
23 else:
24     print("The prime numbers in this range are: ", lst)
25
```

The prime numbers in this range are: [2, 3, 5]

4. write a python program to generate Fibonacci series

Program: series

#Python program to generate Fibonacci until 'n' value

```
n = int(input("Enter the value of 'n': "))
```

```
a = 0
```

```
b = 1
```

```
sum = 0
```

```
count = 1
```

```
print("Fibonacci Series: ", end = " ")
```

```
while(count <= n):
```

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

```
    count += 1
```

```
    a = b
```

```
    b = sum
```

```
    sum = a + b
```

Online Python Compiler (Interp... x | Inbox (2,925) - nira24122001@... x | Python program to print all Prim... x | +

programiz.com/python-programming/online-compiler/

Programiz Python Online Compiler

Interactive Python Course

main.py

```
1 # Python program to print all
2 # prime number in an interval
3
4 def prime(x, y):
5     prime_list = []
6     for i in range(x, y):
7         if i == 0 or i == 1:
8             continue
9         else:
10            for j in range(2, int(i/2)+1):
11                if i % j == 0:
12                    break
13            else:
14                prime_list.append(i)
15    return prime_list
16
17 # Driver program
18 starting_range = 2
19 ending_range = 7
20 lst = prime(starting_range, ending_range)
21 if len(lst) == 0:
22     print("There are no prime numbers in this range")
23 else:
24     print("The prime numbers in this range are: ", lst)
25
```

Run

Shell

The prime numbers in this range are: [2, 3, 5]

>

Clear

Type here to search

30°C Rain 12:58 PM 24/09/2022

