

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

```
a = int(input("enter the no : "))
```

```
if a > 1:
```

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

```
        if (a % i) == 0:
```

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

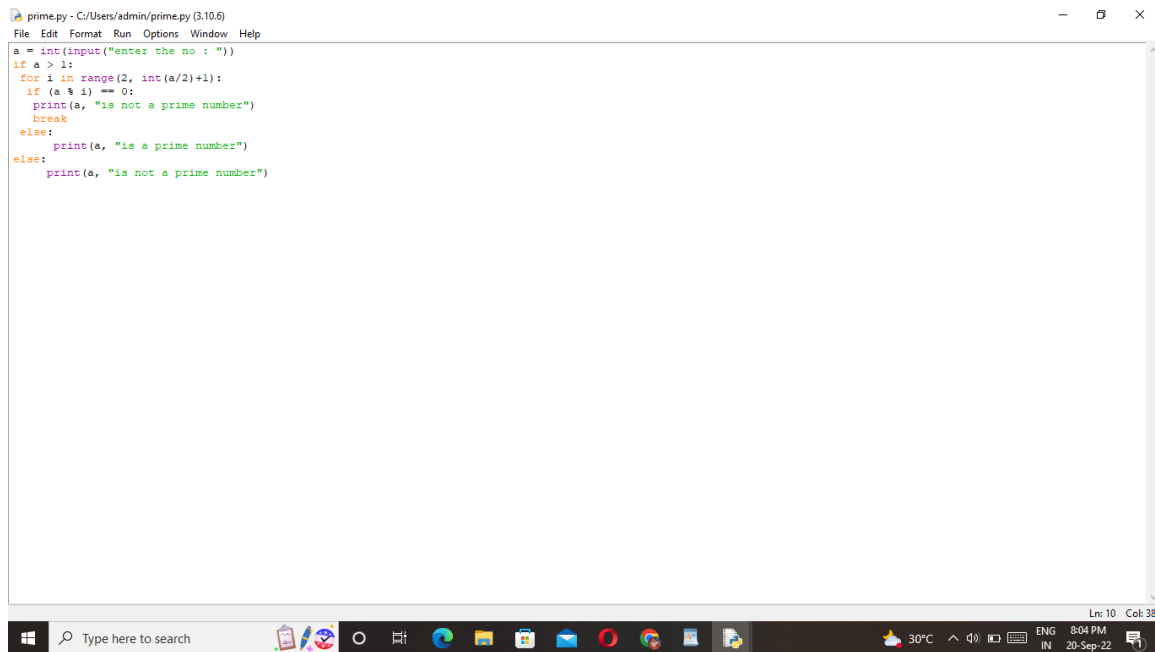
```
            break
```

```
    else:
```

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

```
else:
```

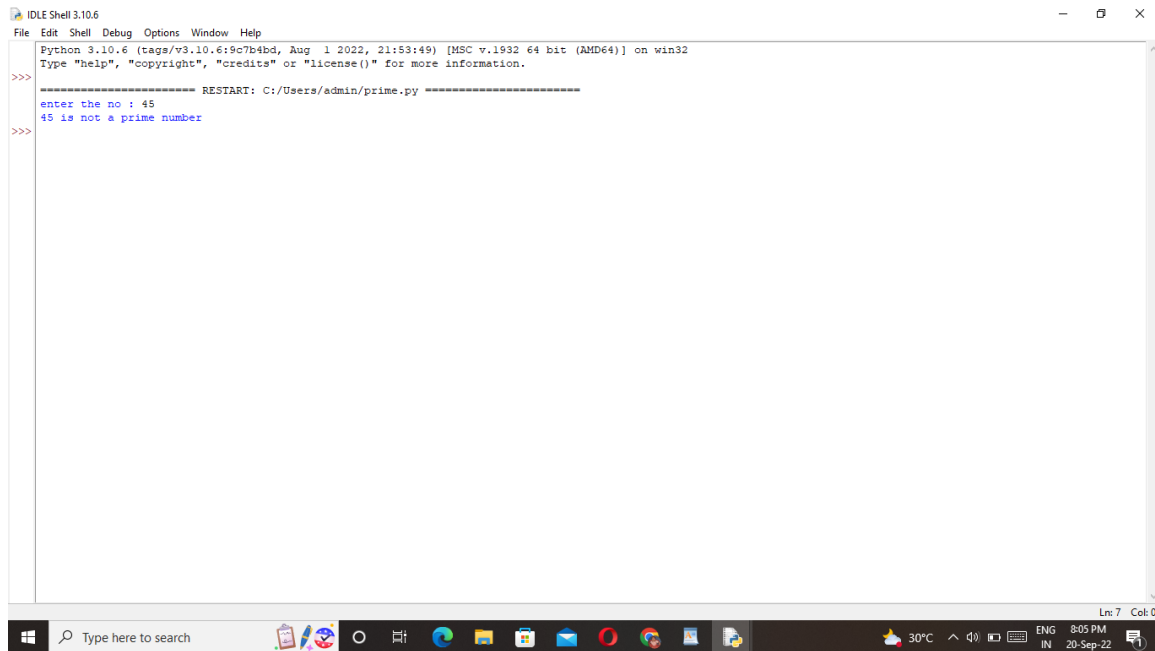
```
    print(a, "is not a prime number")
```

A screenshot of a Python IDE window titled 'prime.py - C:/Users/admin/prime.py (3.10.6)'. The window contains the following Python code:

```
a = int(input("enter the no : "))
if a > 1:
    for i in range(2, int(a/2)+1):
        if (a % i) == 0:
            print(a, "is not a prime number")
            break
    else:
        print(a, "is a prime number")
else:
    print(a, "is not a prime number")
```

The IDE has a menu bar with 'File', 'Edit', 'Format', 'Run', 'Options', 'Window', and 'Help'. The status bar at the bottom shows 'Ln: 10 Col: 38'. The Windows taskbar is visible at the bottom of the screen, showing the search bar, taskbar icons, and system tray with a temperature of 30°C and date 20-Sep-22.

OUTPUT:



```
Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/admin/prime.py =====
enter the no : 45
45 is not a prime number
>>>
```

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

```
min = int(input(" Please Enter A minimum value:"))

max = int(input(" Please Enter B Maximum Value : "))

X=1;

if (min < max):

    while X in range(min,max + 1):

        if( X % 2 != 0):


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

            X=X+1;

        else:


            print("Min value you've entered is greater than max value")
```

```
odd num.py - C:/Users/admin/odd num.py (3.10.6)
File Edit Format Run Options Window Help
min = int(input("Enter A min value:"))
max = int(input("Enter B max Value : "))
X=1;
if (min < max):
    while X in range(min,max + 1):
        if (X % 2 != 0):
            print("{} ".format(X))
            X=X+1;
        else:
            print("Min value you've entered is greater than max value")
Ln: 10 Col: 60
```



OUTPUT:

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help
Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> ===== RESTART: C:/Users/admin/odd num.py =====
Enter A min value:1
Enter B max Value : 20
1
3
5
7
9
11
13
15
17
19
>>>
Ln: 17 Col: 0
```



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

low = 1

```
up = int(input("Enter the upper range no : "))

print("Prime numbers between the range", low , "and", up, "are:")

for low in range(low, up + 1):

    if low > 1:

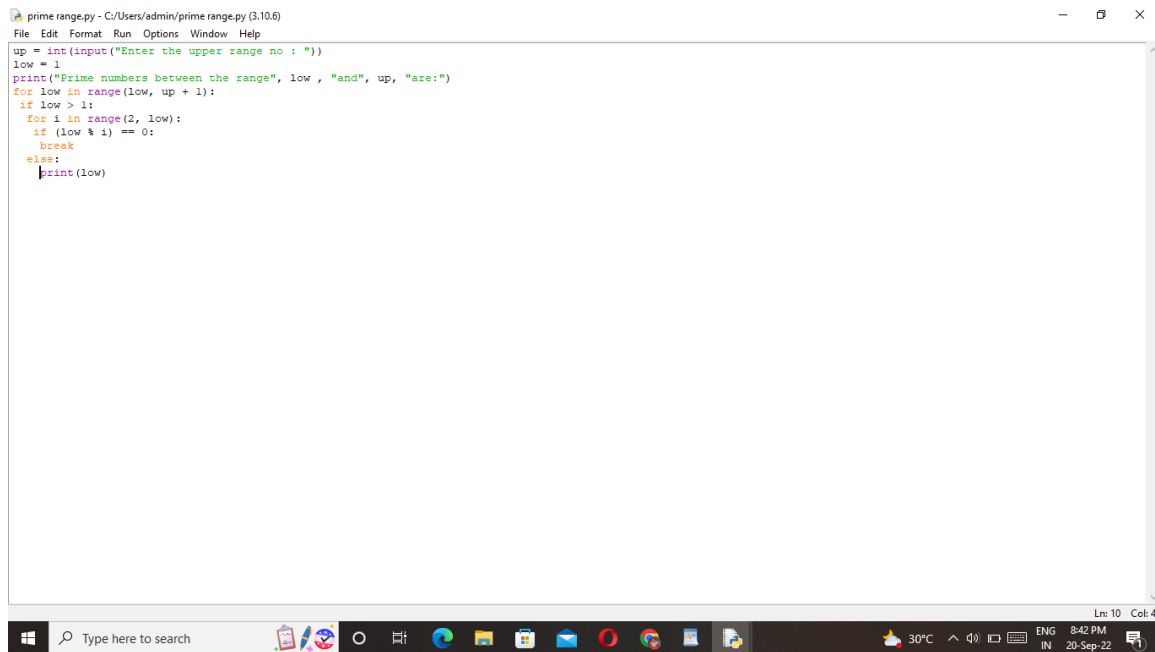
        for i in range(2, low):

            if (low % i) == 0:

                break

        else:

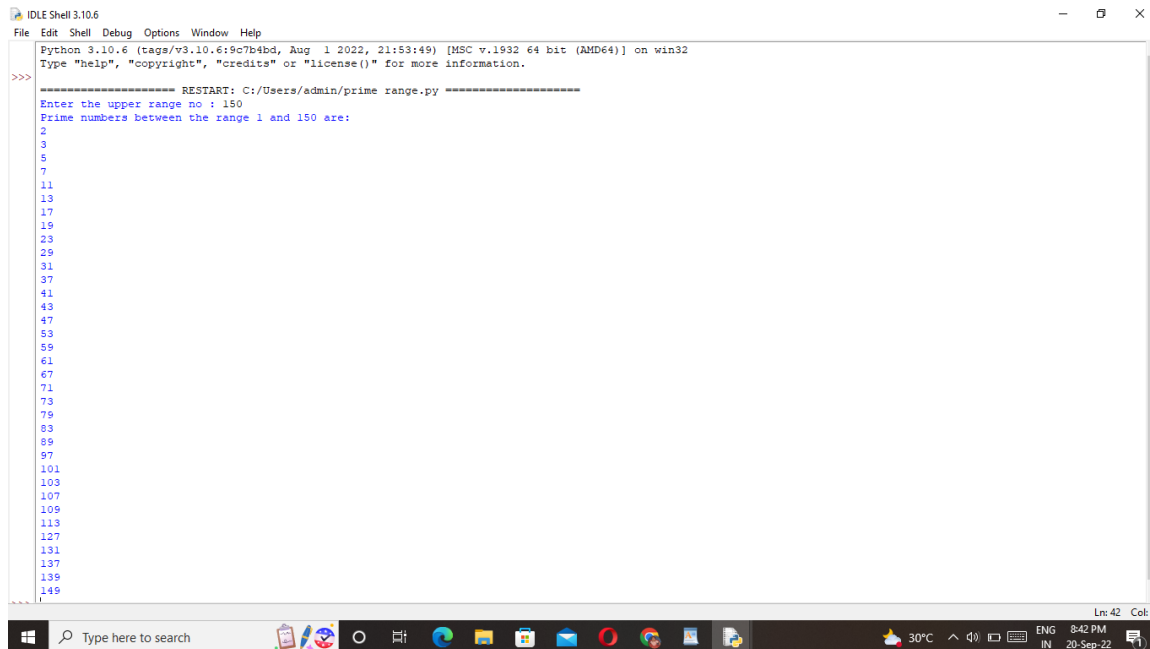
            print(low)
```

A screenshot of a Windows 10 desktop environment. The main focus is a text editor window titled 'prime range.py - C:/Users/admin/prime range.py (3.10.6)'. The editor contains a Python script for finding prime numbers. The code is as follows:

```
up = int(input("Enter the upper range no : "))
low = 1
print("Prime numbers between the range", low , "and", up, "are:")
for low in range(low, up + 1):
    if low > 1:
        for i in range(2, low):
            if (low % i) == 0:
                break
        else:
            print(low)
```

The script has a menu bar with 'File', 'Edit', 'Format', 'Run', 'Options', 'Window', and 'Help'. The status bar at the bottom right of the editor shows 'Ln: 10 Col: 4'. Below the editor window is the Windows taskbar, which includes the Start button, a search bar with the text 'Type here to search', and several pinned application icons. The system tray on the right shows the date and time as '8:42 PM 20-Sep-22' and the language as 'ENG IN'. The temperature is also displayed as '30°C'.

OUTPUT:



```
Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/admin/prime range.py =====
Enter the upper range no : 150
Prime numbers between the range 1 and 150 are:
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
101
103
107
109
113
127
131
137
139
149
```

4. Write a python program to generate Fibonacci series

```
num = int(input("How many terms want to print? "))

num1= 0

num2= 1

count = 0

if num <= 0:

    print("The given no is not valid, please enter +ve integer")

elif num == 1:

    print("The Fibonacci sequence of the numbers up to", num, ": ")

    print(num1)

else:

    print("The fibonacci sequence of the no is:")

    while count < num:

        print(num1)

        nth = num1 + num2

        num1= num2

        num2= nth

        count += 1
```

```
fibonacci.py - C:/Users/admin/fibonacci.py (3.10.6)
File Edit Format Run Options Window Help

num = int(input("How many terms want to print? "))
num1 = 0
num2 = 1
count = 0
if num <= 0:
    print("The given no is not valid, please enter +ve integer")
elif num == 1:
    print("The Fibonacci sequence of the numbers up to", num, ": ")
    print(num1)
else:
    print("The fibonacci sequence of the no is:")
    while count < num:
        print(num1)
        nth = num1 + num2
        num1 = num2
        num2 = nth
        count += 1
```

Ln: 4 Col: 0

Type here to search 29°C 8:54 PM 20-Sep-22

OUTPUT:

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help

Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/admin/fibonacci.py =====
How many terms want to print? 20
The fibonacci sequence of the no is:
0
1
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
1597
2584
4181
>>>
```

Ln: 27 Col: 0

Type here to search 29°C 8:55 PM 20-Sep-22

