

## **Prime number**

### **Program**

```
a = int(input("Enter the number to check prime or not : "))
```

```
if a > 1:
```

```
    for i in range(2, a):
```

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

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

```
            break
```

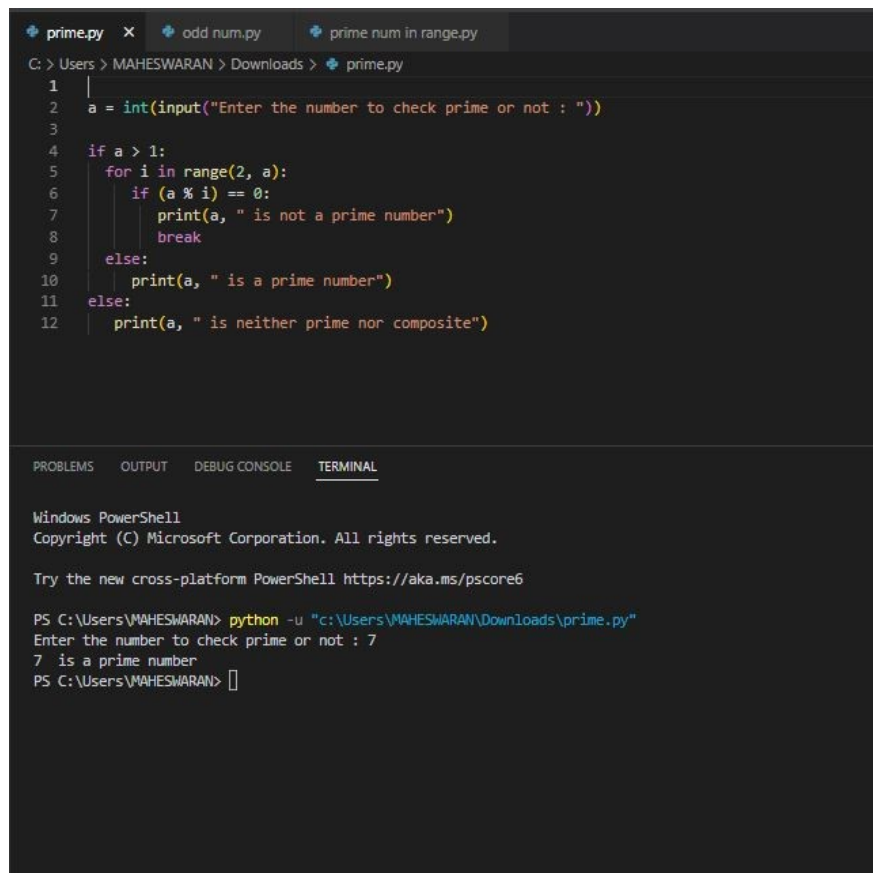
```
    else:
```

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

```
else:
```

```
    print(a, " is neither prime nor composite")
```

### **Output**



The image shows a code editor with three tabs: 'prime.py', 'odd num.py', and 'prime num in range.py'. The 'prime.py' tab is active, displaying a Python script to check if a number is prime. The script prompts the user to enter a number, then checks for divisibility from 2 to the number itself. If a divisor is found, it prints that the number is not prime; otherwise, it prints that the number is prime. The terminal window below shows the execution of the script, where the user enters '7' and the program outputs '7 is a prime number'.

```
1 |
2 | a = int(input("Enter the number to check prime or not : "))
3 |
4 | if a > 1:
5 |     for i in range(2, a):
6 |         if (a % i) == 0:
7 |             print(a, " is not a prime number")
8 |             break
9 |         else:
10 |            print(a, " is a prime number")
11 | else:
12 |     print(a, " is neither prime nor composite")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Windows PowerShell  
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PS C:\Users\MAHESWARAN> python -u "c:\Users\MAHESWARAN\Downloads\prime.py"  
Enter the number to check prime or not : 7  
7 is a prime number  
PS C:\Users\MAHESWARAN>

## Prime Range

### Program

```
a = int(input("Enter Range from: "))
```

```
b = int(input("To: "))
```

```
for i in range(a,b+1):
```

```
    if i > 1:
```

```
        for j in range(2, i):
```

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

```
                break
```

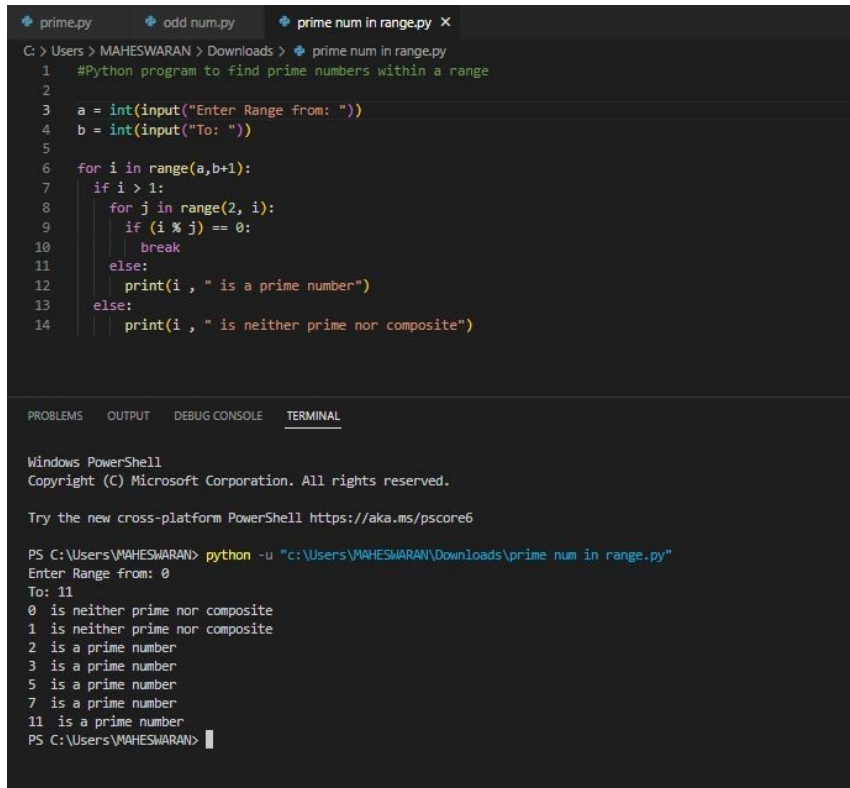
```
        else:
```

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

else:

```
print(i , " is neither prime nor composite")
```

## Output



```
prime.py  odd num.py  prime num in range.py X
C:\Users\MAHESWARAN> Downloads > prime num in range.py
1  #Python program to find prime numbers within a range
2
3  a = int(input("Enter Range from: "))
4  b = int(input("To: "))
5
6  for i in range(a,b+1):
7      if i > 1:
8          for j in range(2, i):
9              if (i % j) == 0:
10                 break
11             else:
12                 print(i , " is a prime number")
13             else:
14                 print(i , " is neither prime nor composite")

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

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PS C:\Users\MAHESWARAN> python -u "c:\Users\MAHESWARAN\Downloads\prime num in range.py"
Enter Range from: 0
To: 11
0 is neither prime nor composite
1 is neither prime nor composite
2 is a prime number
3 is a prime number
5 is a prime number
7 is a prime number
11 is a prime number
PS C:\Users\MAHESWARAN> |
```

## Fibonacci series

### Program

a = 0

b = 1

```
n = int(input("Enter the range of fibonacci numbers you wish to find"))
```

```
print(a)
```

```
print(b)
```

```
for i in range(0,n-2):
```

```
    fib = a + b
```

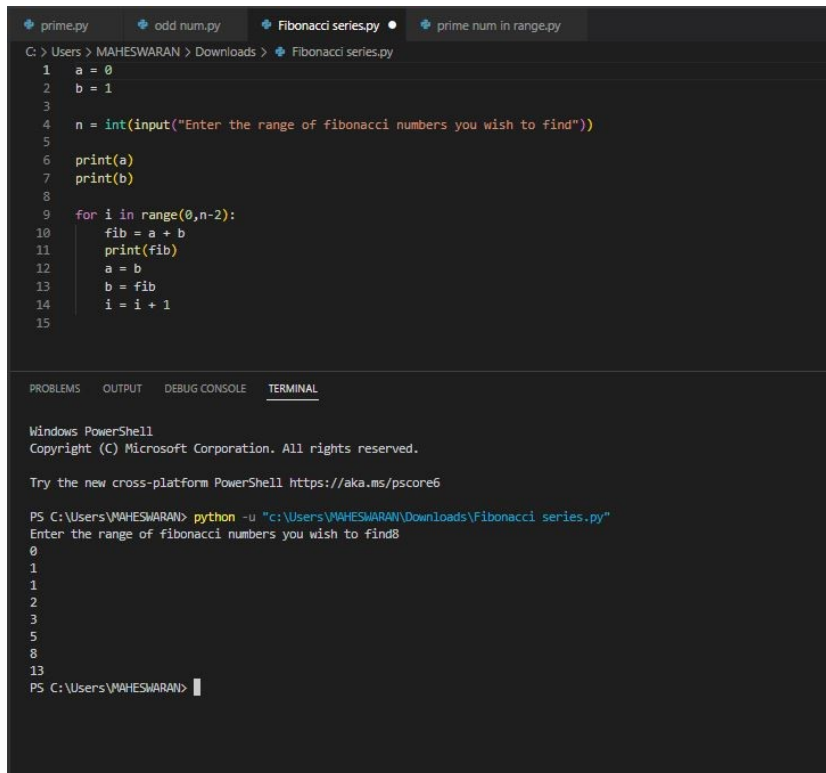
```
print(fib)
```

```
a = b
```

```
b = fib
```

```
i = i + 1
```

## Output



The screenshot shows a code editor with four tabs: 'prime.py', 'odd num.py', 'Fibonacci series.py' (active), and 'prime num in range.py'. The active tab contains the following Python code:

```
1 a = 0
2 b = 1
3
4 n = int(input("Enter the range of fibonacci numbers you wish to find"))
5
6 print(a)
7 print(b)
8
9 for i in range(0,n-2):
10     fib = a + b
11     print(fib)
12     a = b
13     b = fib
14     i = i + 1
15
```

Below the code editor is a terminal window with the following output:

```
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PS C:\Users\MAHESWARAN> python -u "c:\Users\MAHESWARAN\Downloads\Fibonacci series.py"
Enter the range of fibonacci numbers you wish to find8
0
1
1
2
3
5
8
13
PS C:\Users\MAHESWARAN>
```

## Odd number

### Program

```
print("Finding odd numbers in a given range")
```

```
m = int(input("Range from : "))
```

```
n = int(input("To :"))
```

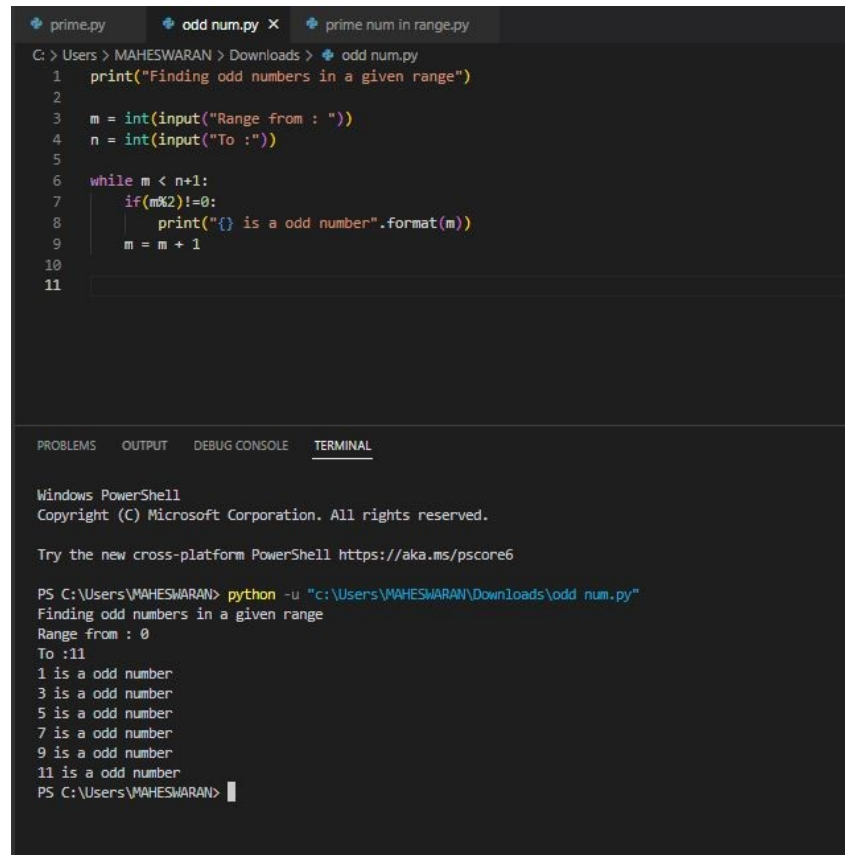
```
while m < n+1:
```

```
if(m%2)!=0:
```

```
    print("{} is a odd number".format(m))
```

```
m = m + 1
```

## Output



The screenshot shows a code editor with three tabs: 'prime.py', 'odd num.py', and 'prime num in range.py'. The 'odd num.py' tab is active, displaying the following Python code:

```
1 print("Finding odd numbers in a given range")
2
3 m = int(input("Range from : "))
4 n = int(input("To :"))
5
6 while m < n+1:
7     if(m%2)!=0:
8         print("{} is a odd number".format(m))
9     m = m + 1
10
11
```

Below the code editor, the 'TERMINAL' tab is active, showing the output of the script:

```
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PS C:\Users\MAHESWARAN> python -u "c:\Users\MAHESWARAN\Downloads\odd num.py"
Finding odd numbers in a given range
Range from : 0
To :11
1 is a odd number
3 is a odd number
5 is a odd number
7 is a odd number
9 is a odd number
11 is a odd number
PS C:\Users\MAHESWARAN>
```