File   Edit   Selection   View   Go   Run   Terminal   Help

Get Started   repetition.py   bubblesort.py   binarysearch.py   p9.py   p10.py   curve.py   median.py   alphabeta.py   **assignment.py** X   sqroot.p

D: > Plaksha > Term 1 > Maths and Python > assignment.py > ...

```python
1   def ques1():
2       """
3       This function takes an input N prints the following:
4       N = 1 (1 star with one row)
5       N = 2 (2 rows: Row 1 - 1 star, Row 2 - 2 stars)
6       and so on
7       """
8       n = int(input("Enter N:"))
9       for i in range(n):
10          print("*"*(i+1))              # Print stars
11
12  def ques2():
13      """
14      This function takes an input N prints the following:
15      N = 1 (1 star with one row)
16      N = 2 (2 rows: Row 1 - 1 star(from the right), Row 2 - 2 stars(from the right))
17      and so on
18      """
19      n = int(input("Enter N:"))
20      for i in range(n):
21          print(" "*(n-i-1), "*"*(i+1))     # Print spaces and stars
22
23  def ques3():
24      """
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   JUPYTER

```
*****
******
PS C:\Users\kishl> & C:/Users/kishl/AppData/Local/Microsoft/WindowsApps/python3.10.exe "d:/Plaksha/Term 1/Maths and Python/assignment.py"
Enter N:8
*
**
***
****
*****
******
*******
********
PS C:\Users\kishl>
```

Ln 76, Col 2   Spaces: 4   UTF-8   CRLF   Python   3.10.6 64-bit (microsoft store)

89°F   Haze   18:49   03-09-2022

File   Edit   Selection   View   Go   Run   Terminal   Help

Get Started   repetition.py   bubblesort.py   binarysearch.py   p9.py   p10.py   curve.py   median.py   alphabeta.py   **assignment.py** X   sqroot.p

D: > Plaksha > Term 1 > Maths and Python > assignment.py > ...

```python
4       N = 1 (1 star with one row)
5       N = 2 (2 rows: Row 1 - 1 star, Row 2 - 2 stars)
6       and so on
7       """
8       n = int(input("Enter N:"))
9       for i in range(n):
10          print("*"*(i+1))              # Print stars
11
12  def ques2():
13      """
14      This function takes an input N prints the following:
15      N = 1 (1 star with one row)
16      N = 2 (2 rows: Row 1 - 1 star(from the right), Row 2 - 2 stars(from the right))
17      and so on
18      """
19      n = int(input("Enter N:"))
20      for i in range(n):
21          print(" "*(n-i-1), "*"*(i+1))     # Print spaces and stars
22
23  def ques3():
24      """
25      This function takes an input N prints the following:
26      N = 4
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   JUPYTER

```
*****
******
*******
PS C:\Users\kishl> & C:/Users/kishl/AppData/Local/Microsoft/WindowsApps/python3.10.exe "d:/Plaksha/Term 1/Maths and Python/assignment.py"
Enter N:7
      *
     **
    ***
   ****
  *****
 ******
*******
PS C:\Users\kishl>
```

Ln 74, Col 9   Spaces: 4   UTF-8   CRLF   Python   3.10.6 64-bit (microsoft store)

89°F   Haze   18:50   03-09-2022

Two screenshots of Visual Studio Code showing `assignment.py`.

First screenshot — editor (lines 21–43):

```python
        print(" "*(n-i-1), "*"*(i+1))      # Print spaces and stars

def ques3():
    """
    This function takes an input N prints the following:
    N = 4
            *
          * * *
        * * * * *
      * * * * * * *
    """
    n = int(input("Enter N:"))
    for i in range(n+1):
        print(" "*2*(n-i),end="")        # Print spaces
        for j in range(i*2-1):
            print('*', end=" ")          # Print stars
        print()                          # Print newline

def ques4():
    """
    This function takes an inputs i and j prints a list containing the numbers between i and j(inclusive).
    """
    i = int(input("Enter i:"))
```

First screenshot — terminal:

```
    ****
    *****
    ******
PS C:\Users\kishl> & C:/Users/kishl/AppData/Local/Microsoft/WindowsApps/python3.10.exe "d:/Plaksha/Term 1/Maths and Python/assignment.py"
Enter N:6
          *
        * * *
      * * * * *
    * * * * * * *
  * * * * * * * * *
* * * * * * * * * * *
PS C:\Users\kishl>
```

Second screenshot — editor (lines 33–56):

```python
    for i in range(n+1):
        print(" "*2*(n-i),end="")        # Print spaces
        for j in range(i*2-1):
            print('*', end=" ")          # Print stars
        print()                          # Print newline

def ques4():
    """
    This function takes an inputs i and j prints a list containing the numbers between i and j(inclusive).
    """
    i = int(input("Enter i:"))
    j = int(input("Enter j:"))
    if i > j:
        print("Error!! i must be less than j")
        return
    l = [x for x in range(i,j+1)] # generate a list b/w i and j using list comprehension
    print(l)

def ques5():
    """
    This function takes an inputs i an j and prints all prime nos between i and j in a list.
    """
    i = int(input("Enter i:"))
    j = int(input("Enter j:"))
```

Second screenshot — terminal:

```
Enter i:10
Enter j:20
[10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]
PS C:\Users\kishl> & C:/Users/kishl/AppData/Local/Microsoft/WindowsApps/python3.10.exe "d:/Plaksha/Term 1/Maths and Python/assignment.py"
Enter i:1
Enter j:15
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15]
PS C:\Users\kishl> & C:/Users/kishl/AppData/Local/Microsoft/WindowsApps/python3.10.exe "d:/Plaksha/Term 1/Maths and Python/assignment.py"
Enter i:45
Enter j:116
[45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90,
 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116]
PS C:\Users\kishl>
```

Script

```python
def ques1():
    """

    This function takes an input N prints the following:
    N = 1 (1 star with one row)
    N = 2 (2 rows: Row 1 - 1 star, Row 2 - 2 stars)
    and so on
    """

    n = int(input("Enter N:"))
    for i in range(n):
        print("*"*(i+1))                # Print stars


def ques2():
    """

    This function takes an input N prints the following:
    N = 1 (1 star with one row)
    N = 2 (2 rows: Row 1 - 1 star(from the right), Row 2 - 2 stars(from the
right))
    and so on
    """

    n = int(input("Enter N:"))
    for i in range(n):
        print(" "*(n-i-1), "*"*(i+1))      # Print spaces and stars


def ques3():
```

```python
    """
    This function takes an input N prints the following:
    N = 4
            *
          * * *
        * * * * *
      * * * * * * *
    """
    n = int(input("Enter N:"))
    for i in range(n+1):
        print(" "*2*(n-i),end="")          # Print spaces
        for j in range(i*2-1):
            print('*', end=" ")            # Print stars
        print()                            # Print newline

def ques4():
    """
    This function takes an inputs i and j prints a list containing the numbers
between i and j(inclusive).
    """
    i = int(input("Enter i:"))
    j = int(input("Enter j:"))
    if i > j:
        print("Error!! i must be less than j")
        return
    l = [x for x in range(i,j+1)] # generate a list b/w i and j using list
comprehension
    print(l)

def ques5():
    """
    This function takes an inputs i an j and prints all prime nos between i
and j in a list.
    """
    i = int(input("Enter i:"))
    j = int(input("Enter j:"))
    # Numbers must be positive and i must be greater than j
    if i > j:
        print("Error!! i must be less than j")
        return
    elif i < 0:
        print("Error!! Numbers must be greater than 0")
        return

    if i < 2:
        i=2
```

```python
    prime = lambda x:sum([1 if x%z==0 else 0 for z in range(2,int(x))]) #
Lambda function which returns 0 if prime and 1+ if not prime
    l = [x for x in range(i,j+1) if prime(x)==0]
    print("Prime Nos:", l)

#ques1()
#ques2()
#ques3()
#ques4()
ques5()
```