

DAILY ONLINE ACTIVITIES SUMMARY

Date:	12-06-2020	Name:	ASHIKA
Sem & Sec	6 A	USN:	4AL17CS016
Online Test Summary			
Subject	-		
Max. Marks	-	Score	-
Certification Course Summary			
Course	PYTHON FOR DATA SCIENCE		
Certificate Provider	Cognitive class	Duration	5 hour
Coding Challenges			
Problem Statement: 1. Write a Python program to implement Magic Square 2. Python program to print the pattern <div style="text-align: center;"><pre> * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * </pre></div>			
Status: done(executed)			

Uploaded the report in Github	yes
If yes Repository name	https://github.com/ASHIKA-05/DAILY-REPORT
Uploaded the report in slack	yes

NO ONLINE TEST

CERTTIFICATION COURSE

Submit You have used 1 of 2 attempts Save

✓ Correct (1/1 point)

QUESTION 2

1/1 point (ungraded)

What is the value of c after the following block of code is run ?

```
def f(*x):
    return sum(c)
```

☐ return the total of a variable amount of parameters

☐ return the total of a list

☒ the function is not valid ✓

ONLINE CODEING

1. Write a Python program to implement Magic Square

A magic square of order n is an arrangement of n^2 numbers, usually distinct integers, in a square, such that the n numbers in all rows, all columns, and both diagonals sum to the same constant. A magic square contains the integers from 1 to n^2 .

The constant sum in every row, column and diagonal is called the magic constant or magic sum, M . The magic constant of a normal magic square depends only on n and has the following value:

$$M = n(n^2+1)/2$$

example

Magic Square of size 5

9 3 22 16 15

2 21 20 14 8

25 19 13 7 1

18 12 6 5 24

11 10 4 23 17

Sum in each row & each column = $5 \cdot (5^2+1)/2 = 65$

```
def generateSquare(n):
```

```
    magicSquare = [[0 for x in range(n)]
```

```
                    for y in range(n)]
```

```
    i = n / 2
```

```
    j = n - 1
```

```
    num = 1
```

```
    while num <= (n * n):
```

```
        if i == -1 and j == n:
```

```
            j = n - 2
```

```
            i = 0
```

```
        else:
```

```
            if j == n:
```

```

        j = 0

    if i < 0:

        i = n - 1

    if magicSquare[int(i)][int(j)]:

        j = j - 2

        i = i + 1

        continue

    else:

        magicSquare[int(i)][int(j)] = num

        num = num + 1

        j = j + 1

        i = i - 1

print ("Magic Square for n =", n)

print ("Sum of each row or column",n * (n * n + 1) / 2, "\n")

for i in range(0, n):

    for j in range(0, n):

        print('%2d ' % (magicSquare[i][j]),end = "")

        if j == n - 1:

            print()

n=int(input("Number of rows of the Magic Square:"))

generateSquare(n)

```

output:

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Hp/AppData/Local/Programs/Python/Python37/square.py =====
Number of rows of the Magic Square:5
Magic Square for n = 5
Sum of each row or column 65.0

 9  3 22 16 15
 2 21 20 14  8
25 19 13  7  1
18 12  6  5 24
11 10  4 23 17
>>> |
```

2. Python program to print the pattern

```

      *
    * *
  * * *
* * * *
* * * * *
  * * * *
    * * *
      * *
        *
```

```
def pattern(n):
```

```
    k = 2 * n - 2
```

```
    for i in range(0, n-1):
```

```
        for j in range(0, k):
```

```
            print(end=" ")
```

```
        k = k - 2
```

```
        for j in range(0, i + 1):
```

```

        print("* ", end="")

    print("")

    k = -1

    for i in range(n-1,-1,-1):

        for j in range(k,-1,-1):

            print(end=" ")

        k = k + 2

        for j in range(0, i + 1):


            print("* ", end="")

        print("")

```

pattern(5)

output:



```

Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (default, Aug 9 2019, 18:34:13) [MSC v.1915 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
----- RESTART: C:/Users/hp/Desktop/star.py -----
*
 *
 * *
 * * *
 * * * *
 * * * * *
>>>

```