DAILY ONLINE ACTIVITIES SUMMARY

Date:	**12-06-2020**	**Name:**	**Anvitha Poojary**
Sem & Sec	**6A**	**USN:**	**4AL17CS008**

Online Test Summary

Subject	-		
Max. Marks	-	**Score**	-

Certification Course Summary

Course	Introduction to Cloud		
Certificate Provider	**COGNITIVE CLASS .ai**	**Duration**	**6hr**

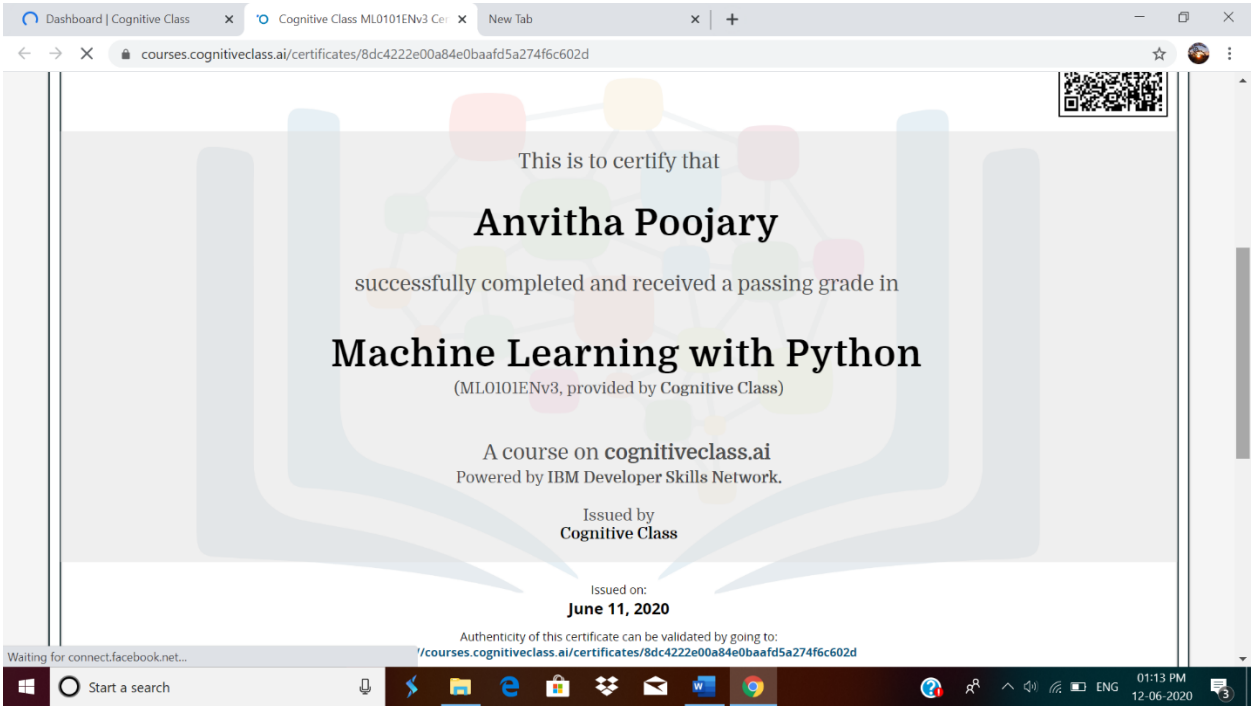
Coding Challenges

Problem Statement:
1.Write a Python program to implement Magic Square
2. Python program to print the pattern

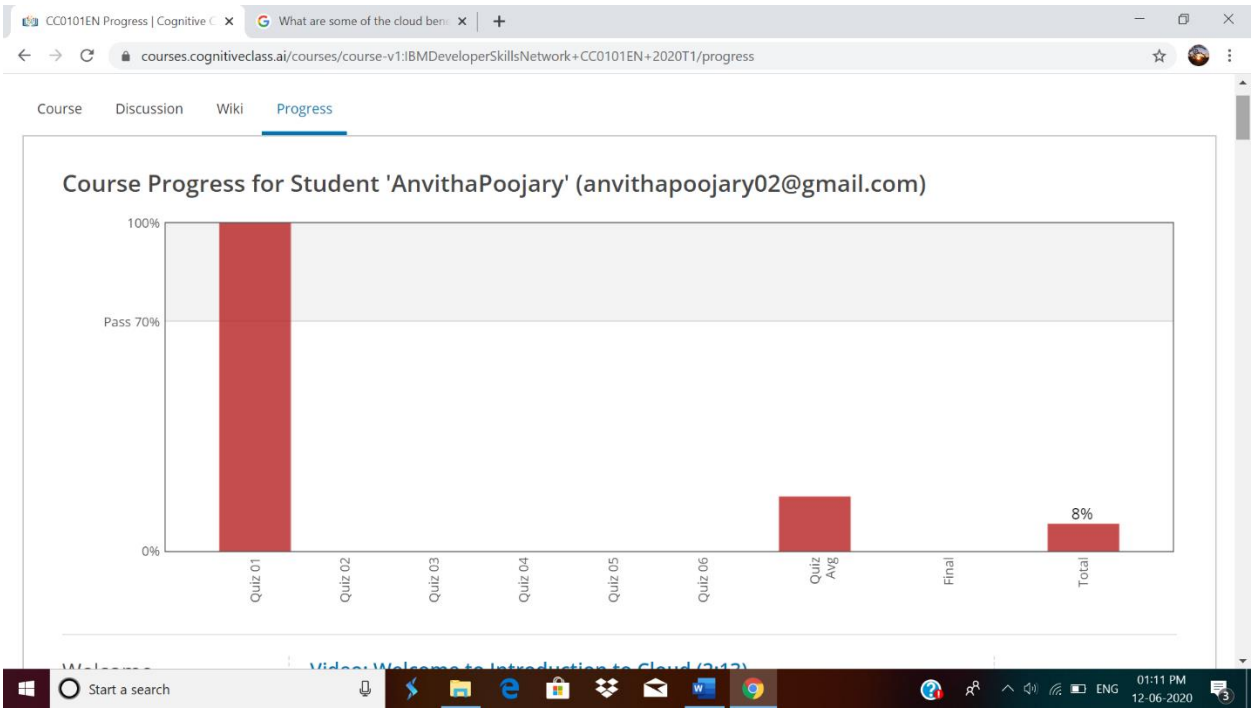
Status: completed

Uploaded the report in Github	**Yes**
If yes Repository name	https://github.com/anvithapo99/Daily-Report
Uploaded the report in slack	**Yes**

Certification course details:



Introduction to Cloud



Coding Challenges Details:

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

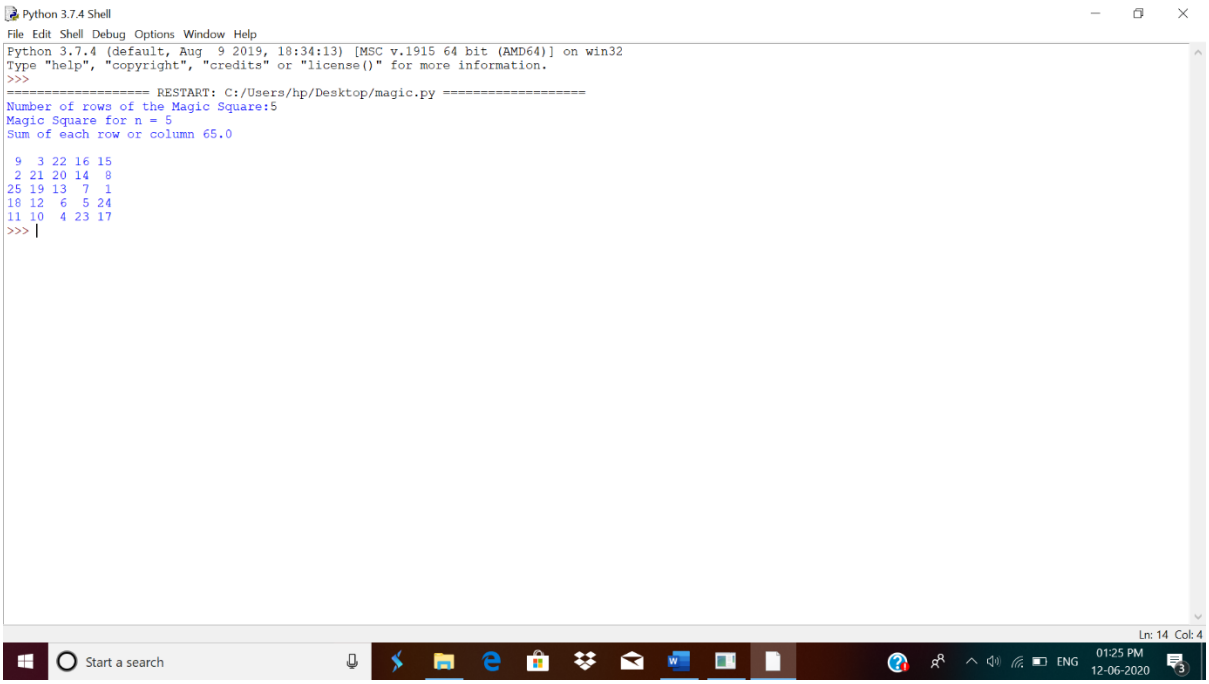
9 3 22 16 15
2 21 20 14 8
25 19 13 7 1
18 12 6 5 24
11 10 4 23 17
Sum in each row & each column = 5*(5^2+1)/2 = 65

```
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:

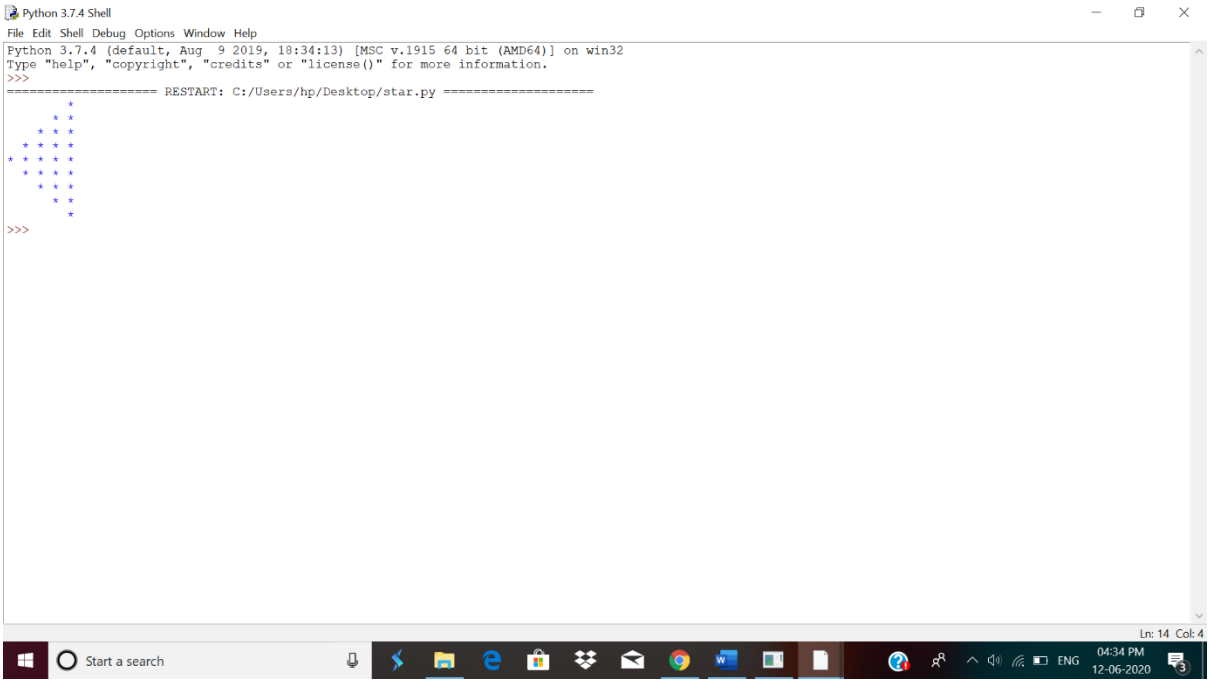


2. Python program to print the pattern

```
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 ==========
*
* *
* * *
* * * * *
* * * * *
* * * *
* * *
* *
*
>>>
Ln: 14 Col: 4
Start a search
ENG
04:34 PM
12-06-2020