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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » The Joy of Computing using Python (course)

Announcements (announcements) About the Course (preview) Ask a Question (forum) Progress (student/home) Mentor (student/mentor)

## Course outline

### How does an NPTEL online course work?

#### Week 1

#### Week 2

#### Week 3

#### week 4

- ☐ Practice is the key (unit? unit=78&lesson=79)
- ☐ Magic Square: Hit and Trial 01 (unit?unit=78&lesson=80)
- ☐ Magic Square: Hit and Trial 02 (unit?unit=78&lesson=81)
- ☐ Magic Square: Hit and Trial 03 (unit?unit=78&lesson=82)
- ☐ Magic Square: Hit and Trial 04 (unit?unit=78&lesson=83)
- ☐ Magic Square: Hit and Trial 05 (unit?unit=78&lesson=84)
- ☐ Let's program and play (unit? unit=78&lesson=85)
- ☐ Dobble Game - Spot the similarity 01 (unit? unit=78&lesson=86)
- ☐ Dobble Game - Spot the similarity 02 (unit? unit=78&lesson=87)
- ☐ Dobble Game - Spot the similarity 03 (unit? unit=78&lesson=88)
- ☐ Dobble Game - Spot the similarity 04 (unit? unit=78&lesson=89)
- ☐ What is your date of birth? (unit?unit=78&lesson=90)
- ☐ Birthday Paradox - Find your twin 01 (unit? unit=78&lesson=91)
- ☐ Birthday Paradox - Find your twin 02 (unit? unit=78&lesson=92)
- ☐ Birthday Paradox - Find your twin 03 (unit? unit=78&lesson=93)
- ☐ Birthday Paradox - Find your twin 04 (unit? unit=78&lesson=94)
- ☐ Birthday Paradox - Find your twin 05 (unit? unit=78&lesson=95)
- ☐ What's your favourite movie? (unit?unit=78&lesson=96)
- ☐ Guess the Movie Name 01 (unit?unit=78&lesson=97)
- ☐ Guess the Movie Name 02 (unit?unit=78&lesson=98)

## Programming Assignments 1: Matrix

Due on 2020-10-15, 23:59 IST

You saw how to create Magic Square of different sizes. It is very important to understand the way the matrices are represented and printed in python.

In this assignment, you will be provided with the number of **rows i.e. r** and **columns i.e. c** as the input and your job is to create a matrix of size  $r \times c$ .

Also, the matrix should have elements starting from 1 to  $r \times c$  with an increment of one in row manner.

### Example:

if  $r = 2$  and  $c = 3$   
then the output is

```
1 2 3
4 5 6
```

### Input Format:

Two numbers **r** and **c** in a single line separated by a space.

### Output Format:

Elements of the generated matrix.

Each row should be printed in a new line with each element separated by a space.

### Example:

#### Input:

```
3 4
```

#### Output:

```
1 2 3 4
5 6 7 8
9 10 11 12
```

### Explanation:

In this example the number of rows i.e. **r** is 3 and the number of columns is i.e. **c** is 4.

Therefore the size of the matrix is **3x4** which is **12**. Which means it should have 12 elements starting from 1.

It should be printed in row manner i.e. the first element should be at the first row and first column, second element at first row and second column and so on.

NOTE: There should not be any extra space after the elements of the last column and no extra newline after the last row of the matrix.

Your last recorded submission was on 2020-10-05, 14:40 IST

Select the Language for this assignment. Python3 ▾

```
1 rows, columns = [int(x) for x in input().split()]
2
3 matrix=[]
4
5 row=[]
6
7 counter = 1
8
9 for i in range(rows):
10     row=[]
11     for j in range(columns):
12         row.append(counter)
13         counter = counter + 1
14     matrix.append(row)
15
16 for i in range(rows):
17     for j in range(columns):
18         if j !=(columns-1):
19             print(matrix[i][j],end=" ")
20         else:
21             print(matrix[i][j],end="")
22     if i!=(rows-1):
23         print()
```

You may submit any number of times before the due date. The final submission will be considered for grading.

This assignment has Public Test cases. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.

Save as Draft

Compile & Run

Submit

Reset

### Private Test cases used for Evaluation

#### Test Case 1

### Status

Passed

- ☐ Guess the Movie Name 03  
(unit?unit=78&lesson=99)
- ☐ Guess the Movie Name 04  
(unit?unit=78&lesson=100)
- ☐ Guess the Movie Name 05  
(unit?unit=78&lesson=101)
- ☐ Guess the Movie Name 06  
(unit?unit=78&lesson=102)
- ☒ **Programming Assignments**  
**1: Matrix**  
(/noc20\_cs83/progassignment?  
name=286)
- ☐ Programming Assignment - 2:  
Large Numbers  
(/noc20\_cs83/progassignment?  
name=287)
- ☐ Programming Assignment 3:  
Order in Randomness  
(/noc20\_cs83/progassignment?  
name=288)
- ☐ Quiz : Assignment 4  
(assessment?name=296)

Text Transcripts

Download Videos

Books

Test Case 2

Passed

Test Case 3

Passed