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

Announcements (announcements)

About the Course (https://swayam.gov.in/nd1\_noc20\_cs35/preview) Ask a Question (forum)

Progress (student/home) Mentor (student/mentor)

## Course outline How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

week 4

Week 5

Week 6

Week 7

 Snakes and Ladders - Not on the Board (unit? unit=121&lesson=122)

Snakes and Ladders - Not on the Board -

## Programming Assignment-2: Symmetric

Due on 2020-03-19, 23:59 IST

Given a square matrix of N rows and columns, find out whether it is symmetric or not.

## **Input Format:**

The first line of the input contains an integer number **n** which represents the number of rows and the number of columns.

From the second line, take **n** lines input with each line containing **n** integer elements with each element separated by a space.

## **Output Format:**

Print 'YES' if it is symmetric otherwise 'NO'

Example:

Input:

2

12

2 1

Output: YES

**Sample Test Cases** 

Test Case 1

Input	Output
3 -1 3 2 3 0 4 2 4 5	YES

```
Part 01 (unit?
                                                              4
  unit=121&lesson=123)
                                                                 0 1 2
                                                              1

    Snakes and

                            Test Case 2
                                                              Λ
                                                                4 2 3
                                                                                                   YES
  Ladders - Not
                                                                 2 6 9
                                                              1
  on the Board -
                                                              2 3 9 1
  Part 02 (unit?
  unit=121&lesson=124)
                                                              1
                            Test Case 3
                                                                                                   YES

    Snakes and

                                                              1
  Ladders - Not
  on the Board -
                                                              2
  Part 03 (unit?
  unit=121&lesson=125) Test Case 4
                                                              1 2
                                                                                                   YES
                                                              2
                                                                 1

    Snakes and

  Ladders - Not
                                                              3
  on the Board -
  Part 04 (unit?
                                                                 2 3
                            Test Case 5
                                                                                                   NO
  unit=121&lesson=126)
                                                                 5 6
                                                              4
                                                              7 8 9

    Snakes and

  Ladders - Not
  on the Board -
                                                              2
  Part 05 (unit?
                            Test Case 6
                                                              1
                                                                 2
                                                                                                   YES
  unit=121&lesson=127)
                                                              2 3

    Snakes and

  Ladders - Not
                           The due date for submitting this assignment has passed.
  on the Board -
                           As per our records you have not submitted this assignment.
  Part 06 (unit?
  unit=121&lesson=128) Sample solutions (Provided by instructor)
                                 def isSymmetric(mat,
                             1
2
3
4
5
6
7
8
9
10
                                            i in range(N):
   for j in range(N):
       if (mat[i][j] != mat[j][i]):
            return False
Spiral
  Traversing -
  Let's Animate
  (unit?
                                       return True
  unit=121&lesson=129)
                                 a = int(input())
Spiral
                             11
12
13
  Traversing -
  Let's Animate -
                                       i in range(1,a+1):
l = list(map(int, input ().split ()))
m.append(l)
                                 for
  Part 01 (unit?
                             14
  unit=121&lesson=130)
                             15
                             16
17
                                 if (isSymmetric(m, a)):
    print("YES")
Spiral
                                 else'
                             18
  Traversing -
                             19
                                       print("NO")
  Let's Animate -
  Part 02 (unit?
  unit=121&lesson=131)
Spiral
  Traversing -
  Let's Animate -
  Part 03 (unit?
  unit=121&lesson=132)
Spiral
  Traversing -
  Let's Animate -
  Part 04 (unit?
  unit=121&lesson=133)
```

Spiral Traversing - Let's Animate - Part 05 (unit? unit=121&lesson=134)
Spiral Traversing - Let's Animate - Part 06 (unit? unit=121&lesson=135)
Spiral Traversing - Let's Animate - Part 07 (unit? unit=121&lesson=136)
GPS - Track the route (unit? unit=121&lesson=137)
GPS - Track the route - Part 01 (unit? unit=121&lesson=138)
GPS - Track the route - Part 02 (unit? unit=121&lesson=139)
GPS - Track the route - Part 03 (unit? unit=121&lesson=140)
GPS - Track the route - Part 04 (unit? unit=121&lesson=141)
Quiz: Assignment 7 (assessment? name=277)
Programming Assignment-1: Lower Triangular Matrix (/noc20_cs35/progassignment? name=299)
Programming Assignment- 2: Symmetric (/noc20_cs35/progassignment? name=300)
O Programming Assignment-3:

Binary Matrix (/noc20\_cs35/progassignment? name=301) O Week 7 Feedback (unit? unit=121&lesson=302) Week 8 Week 9 Week 10 Week 11 Week 12 **Text Transcripts Download Videos Books**