

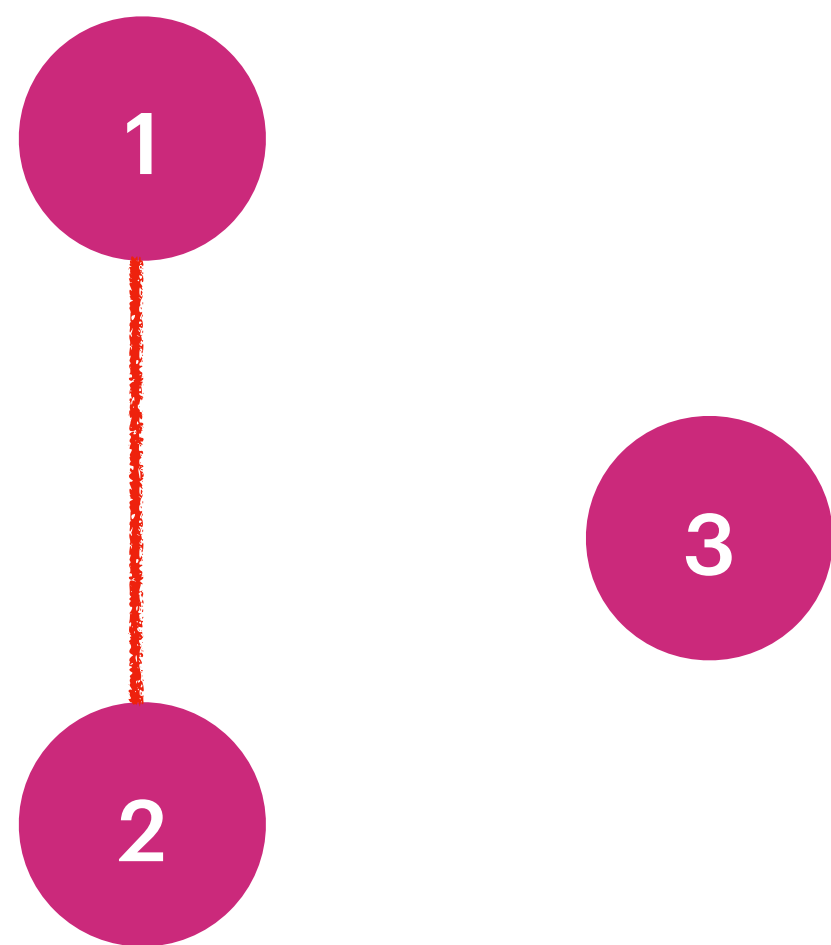
## Number of Provinces

There are  $n$  cities. Some of them are connected, while some are not. If city  $a$  is connected directly city  $b$ , and city  $b$  is connected directly with city  $c$ , then city  $a$  is connected indirectly with city  $c$ . A province is a group of directly or indirectly connected cities and no other cities outside of the group. You are given an  $n \times n$  matrix `isConnected` where `isConnected[i][j] = 1` if the  $i$ th city and the  $j$ th city are directly connected, and `isConnected[i][j] = 0` otherwise. Return the total number of provinces.

**Input:** `isConnected = [[1,1,0],[1,1,0],[0,0,1]]`  
**Output:** 2

**Input:** `isConnected = [[1,0,0],[0,1,0],[0,0,1]]`  
**Output:** 3

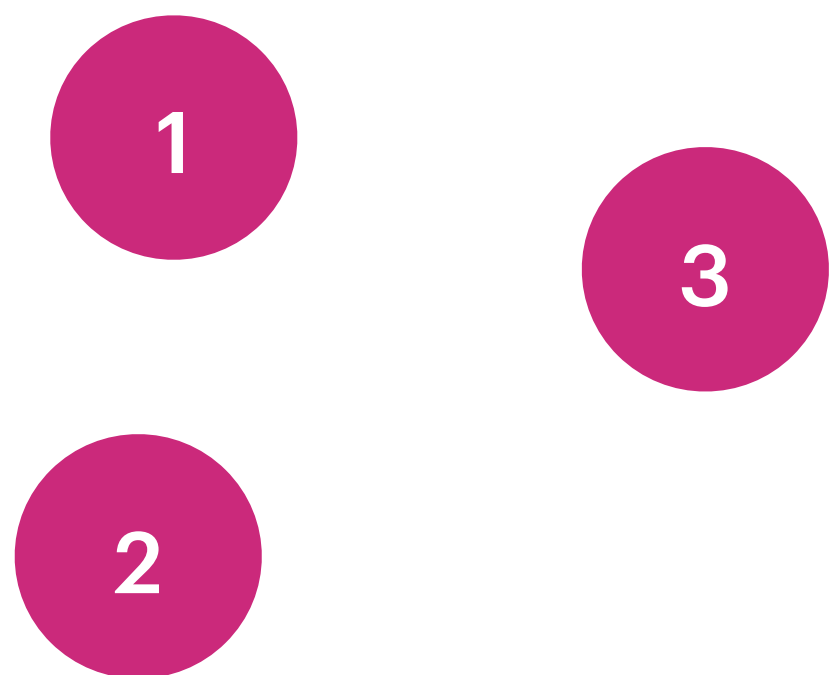
**Input:** isConnected = [[1,1,0],[1,1,0],[0,0,1]]  
**Output:** 2



	C0	C1	C2
	[0,0]	[0,1]	[0,2]
R0	1	1	0
	[1,0]	[1,1]	[1,2]
R1	1	1	0
	[2,0]	[2,1]	[2,2]
R2	0	0	1

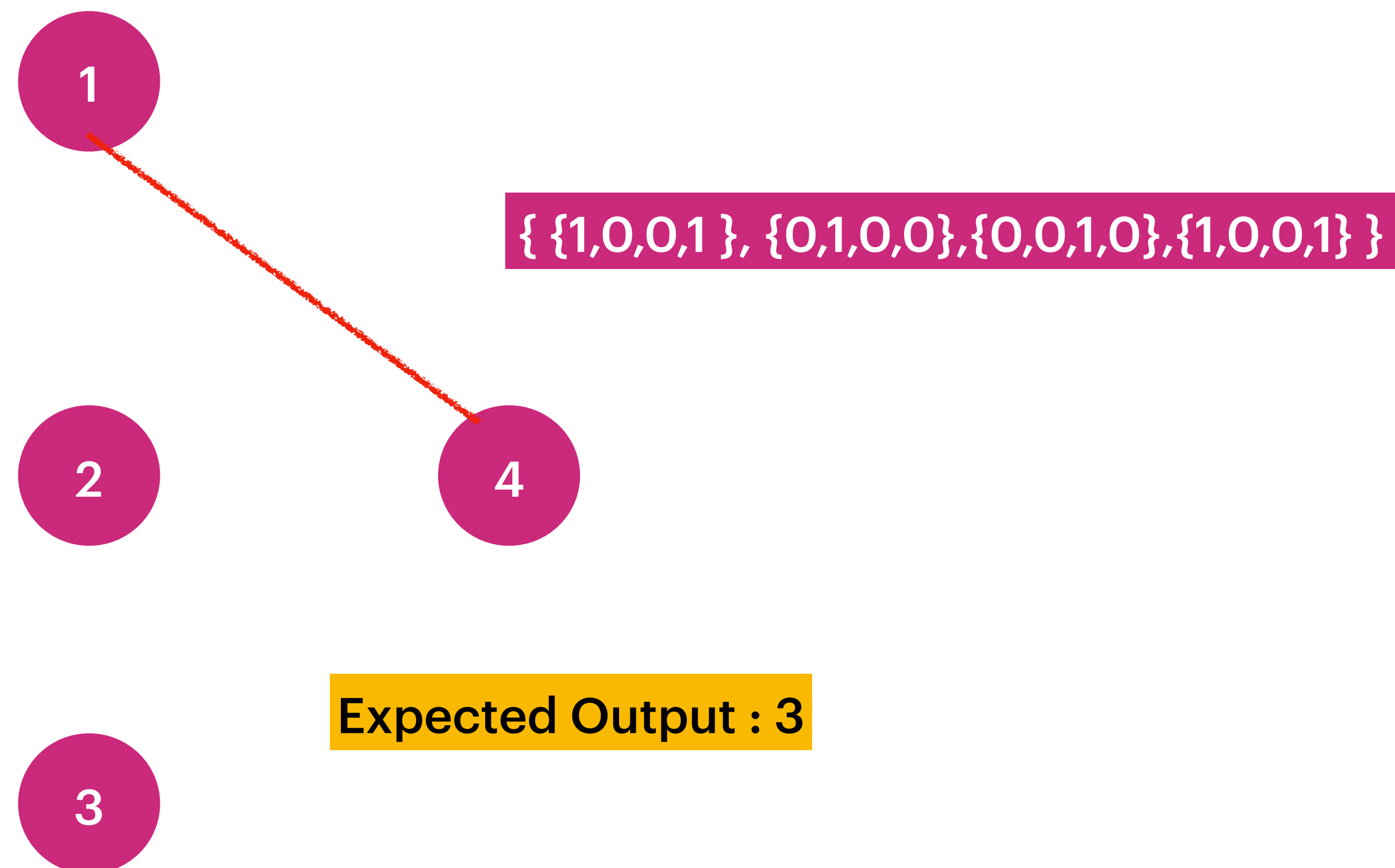
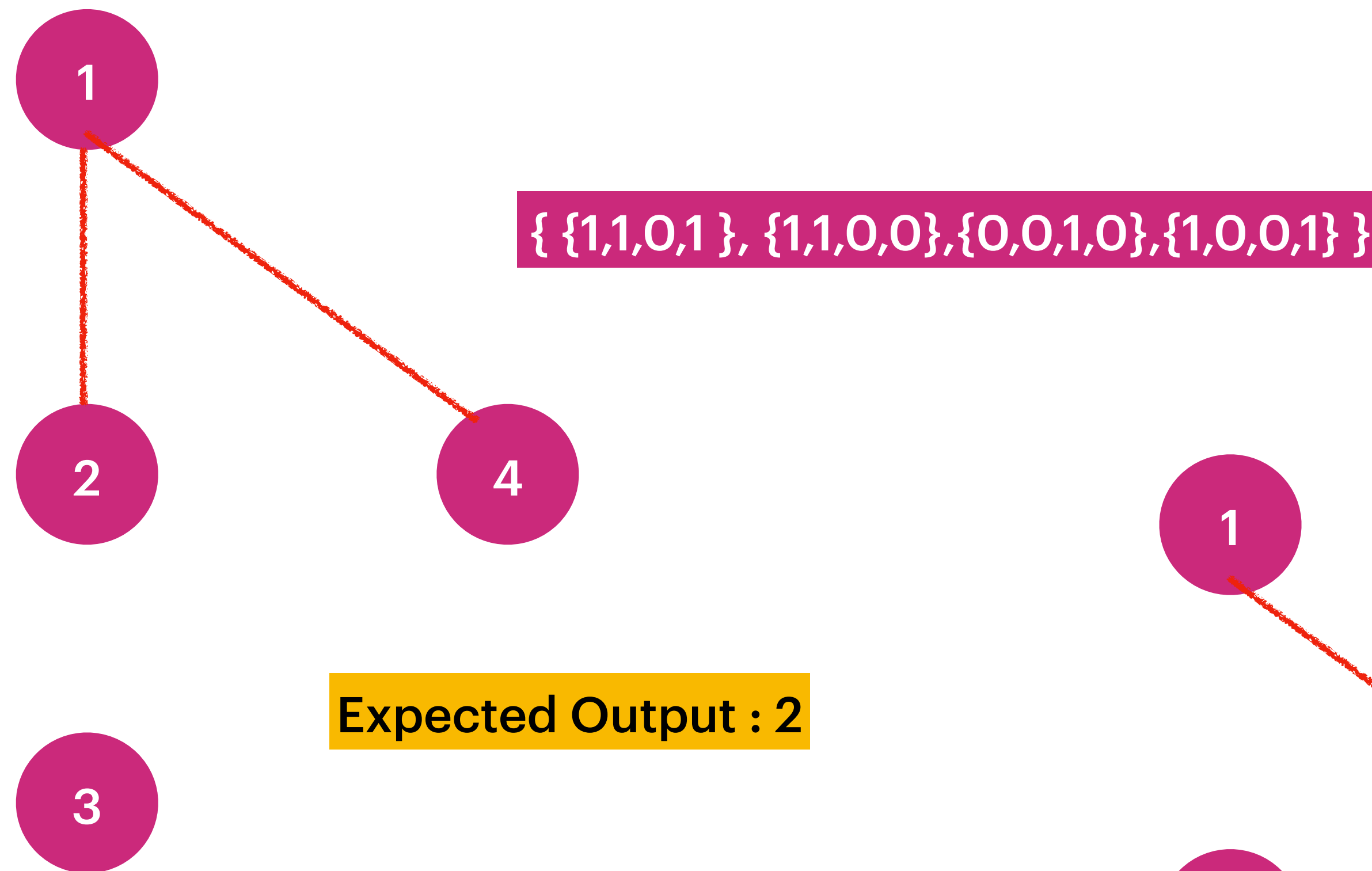
Count = 3  
Count - - = 2

**Input:** isConnected = [[1,0,0],[0,1,0],[0,0,1]]  
**Output:** 3



	C0	C1	C2
	[0,0]	[0,1]	[0,2]
R0	1	0	0
	[1,0]	[1,1]	[1,2]
R1	0	1	0
	[2,0]	[2,1]	[2,2]
R2	0	0	1

Count = 3  
Count - - = 2



## The Earliest Moment When Everyone Become Friends in Instagram

There are  $n$  people in a social group labeled from 0 to  $n - 1$ .  
You are given an array `logs` where `logs[i] = [timestampi, xi, yi]` indicates that `xi` and `yi` will be friends at the time `timestampi`.

Friendship is symmetric. That means if `a` is friends with `b`, then `b` is friends with `a`. Also, person `a` is acquainted with a person `b` if `a` is friends with `b`, or `a` is a friend of someone acquainted with `b`.  
Return the earliest time for which every person became acquainted with every other person. If there is no such earliest time, return -1.

**Input:** `logs = [[20190101,0,1],[20190104,3,4],[20190107,2,3],[20190211,1,5],[20190224,2,4],[20190301,0,3],[20190312,1,2],[20190322,4,5]]`, `n = 6`

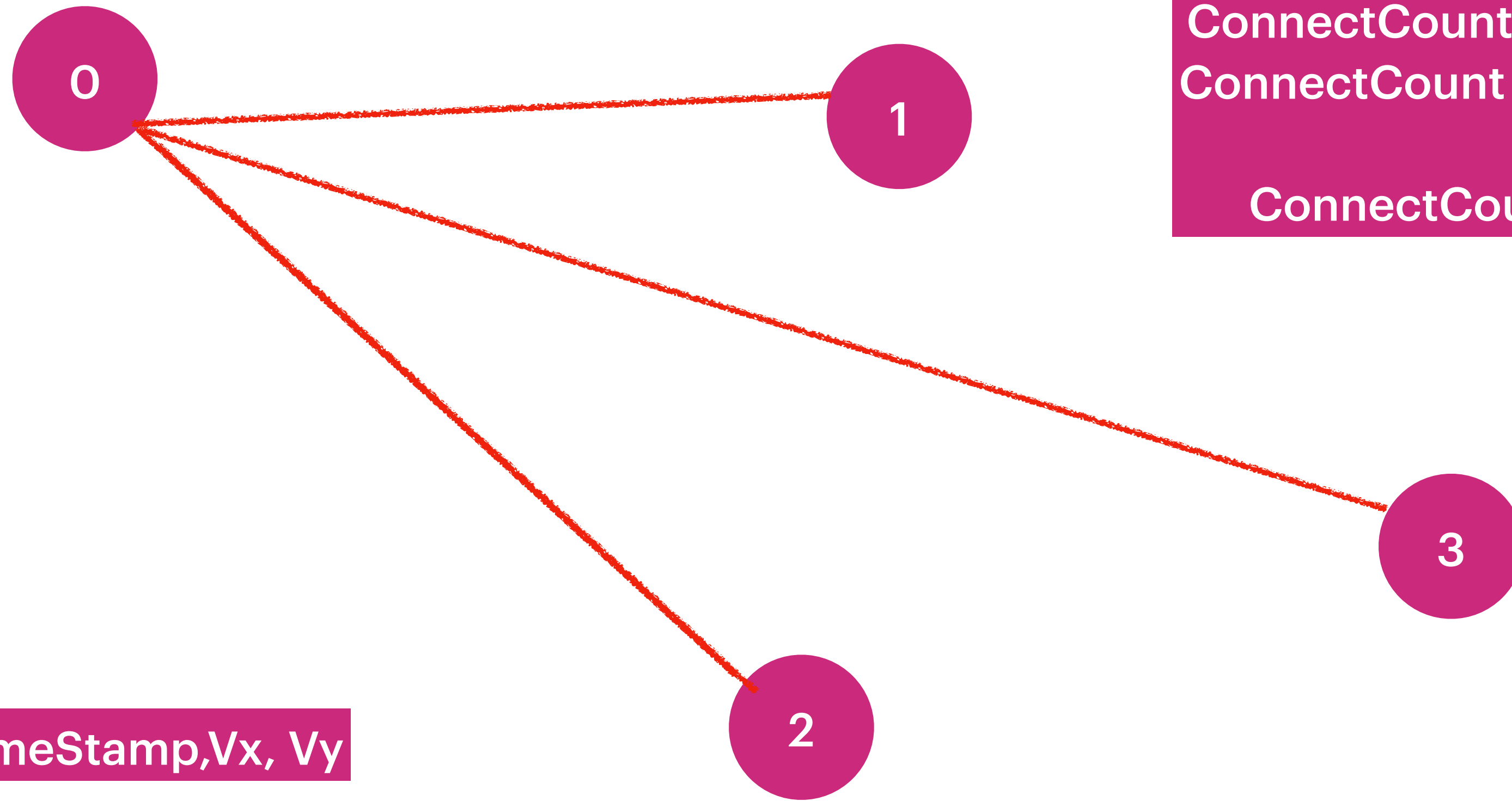
**Output:** 20190301

**Input:** `logs = [[0,2,0],[1,0,1],[3,0,3],[4,1,2],[7,3,1]]`, `n = 4`

**Output:** 3

`[[9,3,0],[0,2,1],[8,0,1],[1,3,2],[2,2,0],[3,3,1]]`

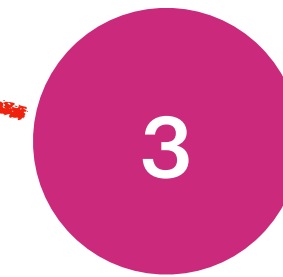
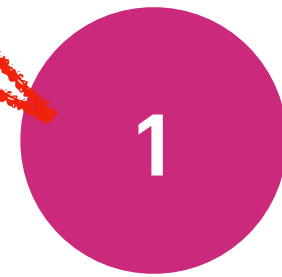
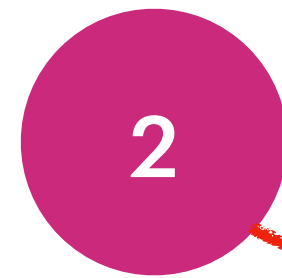
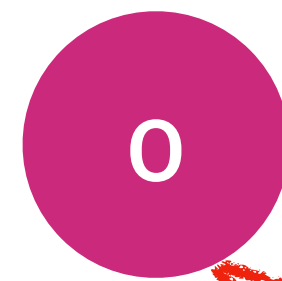
4



ConnectCount =  $n=4 = 3$   
ConnectCount =  $n-1$  stop  
ConnectCount = 0

TimeStamp, Vx, Vy

**Input:** logs =  $[[0,2,0],[1,0,1],[3,0,3],[4,1,2],[7,3,1]]$ ,  $n = 4$   
**Output:** 3



ConnectCount = n=4 = 3  
ConnectCount = n-1 stop

ConnectCount = 0

TimeStamp,Vx, Vy

Not Expected Result : 8

[[9,3,0],[0,2,1],[8,0,1],[1,3,2],[2,2,0],[3,3,1]]  
n=4 output : 2

[[0,2,1],[1,3,2],[2,2,0],[3,3,1],[8,0,1],[9,3,0]]  
Output :2

True Expected Result : 2

TreeMap<Key(timeStamp),value[array]>

