☰ Submission Detail

ID	#511883
Problem	Island (https://ejudge.it.kmitl.ac.th/problem/2963)
Username	it60070183(นายธีรภัทร ไกรศรีสิริกุล) (https://ejudge.it.kmitl.ac.th/account/1506)
Language	Python
Correctness Score	100 Points
Bonus Score	900 Points
Quality	100% How to improve your code
Summary Score	1000 Points
Time	2017-11-04 21:08:05

➡ Details

Case 1 [#6636] :	Passed	0.04990800 sec.
Case 2 [#6637] :	Passed	0.04697800 sec.
Case 3 [#6638] :	Passed	0.05344700 sec.
Case 4 [#6639] :	Passed	0.09277700 sec.
Case 5 [#6640] :	Passed	0.04280400 sec.
Case 6 [#6641] :	Passed	0.04355200 sec.
Case 7 [#6642] :	Passed	0.04455700 sec.
Case 8 [#6643] :	Passed	0.04264300 sec.
Case 9 [#6644] :	Passed	0.04313300 sec.
Case 10 [#6645] :	Passed	0.04297100 sec.

🖥 Code

Pointers=false&textReferences=false&showOnlyOutputs=false&py=3&rawInputLstJSON=%5B%5D&curInstr=0)

```python
1    """
2    PSIT - Week 11
3    Teerapat Kraisrisirikul (60070183)
4    """
5
6    def main():
7        """ Main function """
8        #Starting variables
9        len_y, len_x = tuple([int(i) for i in input().split()])
10       island = [[int(i) for i in input().split()] for _ in range(len_y)]
11       island_count = 0
12
13       #If an area of land is found, scan for all connected land area to count an i
14       for coor_y in range(len_y):
15           for coor_x in range(len_x):
16               if island[coor_y][coor_x] == 1:
17                   island[coor_y][coor_x] = 2
18                   scan_island(island, coor_y, coor_x)
19                   island_count += 1
20
21       #Output
22       print(island_count)
23
24   def scan_island(island, coor_y, coor_x):
25       """ Scan an area of land and its surrounding. Turn scanned land area from 1
26       if island[max(coor_y-1, 0)][max(coor_x-1, 0)] == 1:
27           #Scan: Upper Left
28           island[max(coor_y-1, 0)][max(coor_x-1, 0)] = 2
29           scan_island(island, max(coor_y-1, 0), max(coor_x-1, 0))
30
31       if island[max(coor_y-1, 0)][coor_x] == 1:
32           #Scan: Upwards
33           island[max(coor_y-1, 0)][coor_x] = 2
34           scan_island(island, max(coor_y-1, 0), coor_x)
35
36       if island[coor_y][max(coor_x-1, 0)] == 1:
37           #Scan: Leftwards
38           island[coor_y][max(coor_x-1, 0)] = 2
39           scan_island(island, coor_y, max(coor_x-1, 0))
40
41       if island[max(coor_y-1, 0)][min(coor_x+1, len(island[0])-1)] == 1:
42           #Scan: Upper Right
43           island[max(coor_y-1, 0)][min(coor_x+1, len(island[0])-1)] = 2
44           scan_island(island, max(coor_y-1, 0), min(coor_x+1, len(island[0])-1))
45
46       if island[min(coor_y+1, len(island)-1)][max(coor_x-1, 0)] == 1:
47           #Scan: Lower Left
48           island[min(coor_y+1, len(island)-1)][max(coor_x-1, 0)] = 2
49           scan_island(island, min(coor_y+1, len(island)-1), max(coor_x-1, 0))
50
51       if island[min(coor_y+1, len(island)-1)][coor_x] == 1:
52           #Scan: Downwards
53           island[min(coor_y+1, len(island)-1)][coor_x] = 2
54           scan_island(island, min(coor_y+1, len(island)-1), coor_x)
55
56       if island[coor_y][min(coor_x+1, len(island[0])-1)] == 1:
57           #Scan: Rightwards
58           island[coor_y][min(coor_x+1, len(island[0])-1)] = 2
59           scan_island(island, coor_y, min(coor_x+1, len(island[0])-1))
60
61       if island[min(coor_y+1, len(island)-1)][min(coor_x+1, len(island[0])-1)] ==
62           #Scan: Lower Right
63           island[min(coor_y+1, len(island)-1)][min(coor_x+1, len(island[0])-1)] =
64           scan_island(island, min(coor_y+1, len(island)-1), min(coor_x+1, len(isla
65
66   main()
```