TEST TASK: PYTHON DEVELOPER

TREASURE HUNT

34 21 32 41 25
14 42 43 14 31
54 45 52 42 23
33 15 51 31 35
21 52 33 13 23

You need to write a program to explore the above table for a treasure.

The values in the table are clues. Each cell contains a number between 11 and 55, where the ten's digit represents the row number and the unit's digit represents the column number of the cell containing the next clue. Starting with the upper left corner (at 1,1), use the clues to guide your search through the table - (the first three clues are 11, 55, 15). The treasure is a cell whose value is the same as its coordinates. Your program must first read in the treasure map data into a 5 by 5 array.

IMPLEMENTATION

Write two different implementations. The first should use a functional programming approach (closures, native data structures). The second implementation should be implemented in an object-oriented way (object models, simple OO patterns). One of the implementations should be coded with recursion, the other without recursion. To every implementation you need to create unit test. For creating unit test we are suggests using pytest.

EXAMPLE OF INPUT

55 14 25 52 21
44 31 11 53 43
24 13 45 12 34
42 22 43 32 41
51 23 33 54 15

EXAMPLE OF OUTPUT

11 55 15 21 44 32 13 25 43