

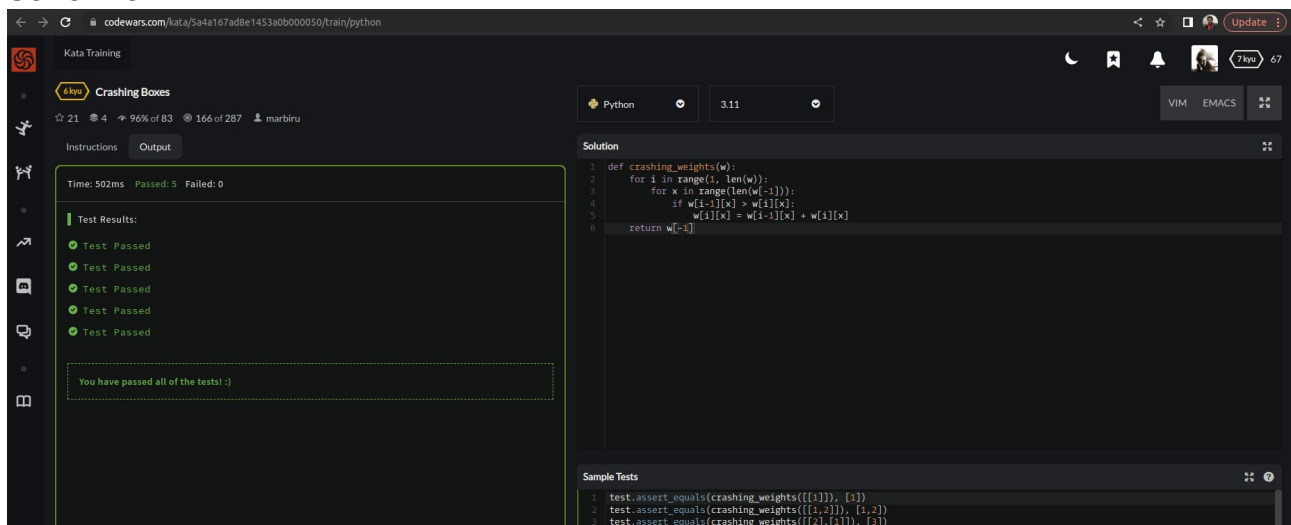
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## Crashing Boxes

### DESCRIPTION:

You are stacking some boxes containing gold weights on top of each other. If a box contains more weight than the box below it, it will crash downwards and combine their weights. e.g. If we stack  $[2]$  on top of  $[1]$ , it will crash downwards and become a single box of weight  $[3]$ . Given an array of arrays, return the bottom row (i.e. the last array) after all crashings are complete.

### SOLUTION:



The screenshot shows the Codewars interface for the 'Crashing Boxes' kata. The left sidebar displays the kata title 'Crashing Boxes' with a 6kyu rating, 21 stars, 4 comments, 96% completion rate, 166 attempts, and the user 'marbiru'. The main area is divided into three sections: 'Instructions' (empty), 'Output' (showing test results: 5 passed, 0 failed, with a message 'You have passed all of the tests! :)'), and 'Solution' (containing the Python code for the function). The 'Sample Tests' section at the bottom shows three test cases.

```
def crashing_weights(w):
    for i in range(1, len(w)):
        for x in range(len(w[i-1])):
            if w[i-1][x] > w[i][x]:
                w[i][x] = w[i-1][x] + w[i][x]
    return w[-1]
```

```
test.assert_equals(crashing_weights([[1]]), [1])
test.assert_equals(crashing_weights([[1,2]]), [1,2])
test.assert_equals(crashing_weights([[2],[1]]), [3])
```

### EXPLANATION:

This Python function `crashing_weights` simulates a process of adding weights from the top to the bottom of a matrix. If a weight on a higher row is greater than the weight below it, the higher weight is replaced with the sum of the two weights. The function then returns the final row of the matrix after all such replacements have been made.