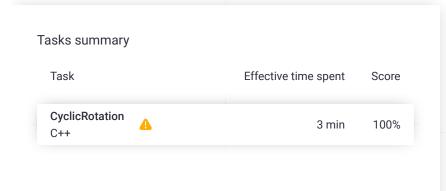
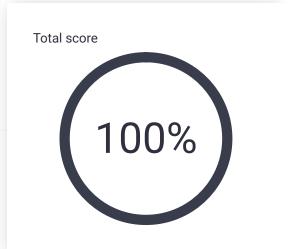
Codility_

Screen Report: Anonymous

Test Name:

Summary **Timeline** Check out Codility training tasks





Tasks Details

1. CyclicRotation

Rotate an array to the right by a given number of steps.

Task Score

Correctness

100%

Performance

100% Not assessed

Task description

An array A consisting of N integers is given. Rotation of the array means that each element is shifted right by one index, and the last element of the array is moved to the first place. For example, the rotation of array A = [3, 8, 9, 7, 6] is [6, 3, 8, 9, 7] (elements are shifted right by one index and 6 is moved to the first place).

The goal is to rotate array A K times; that is, each element of A will be shifted to the right K times.

Write a function:

vector<int> solution(vector<int> &A, int K);

that, given an array A consisting of N integers and an integer K, returns the array A rotated K times.

For example, given

$$A = [3, 8, 9, 7, 6]$$

K = 3

Solution

Programming language used:

Time spent on task: 3 minutes

Notes: not defined yet

Task timeline 0

07:31:14 07:33:39

Code: 07:33:39 UTC, cpp, show code in pop-up

final, score: 100

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```
[3, 8, 9, 7, 6] -> [6, 3, 8, 9, 7]
[6, 3, 8, 9, 7] -> [7, 6, 3, 8, 9]
[7, 6, 3, 8, 9] -> [9, 7, 6, 3, 8]
```

For another example, given

$$A = [0, 0, 0]$$

 $K = 1$

the function should return [0, 0, 0]

Given

$$A = [1, 2, 3, 4]$$

 $K = 4$

the function should return [1, 2, 3, 4]

Assume that:

- N and K are integers within the range [0..100];
- each element of array A is an integer within the range [-1,000..1,000].

In your solution, focus on **correctness**. The performance of your solution will not be the focus of the assessment.

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```
1
2
3
     // you can use includes, for example:
4
     #include <vector>
5
6
7
     vector<int> solution(vector<int> &A, int K) {
8
         // Implement your solution here
9
         if(A.empty())
10
         {
11
             return A;
12
13
         int sizeOfA{static_cast<int>(A.size())};
14
15
         vector<int> rotatedA(A);
         int realRotations{K % sizeOfA};
16
17
         if(realRotations == 0)
18
19
         {
20
             return rotatedA;
21
         }
22
         for (int i = 0; i < sizeOfA; i++)</pre>
23
24
             int mappedElementAfterRotation{(sizeOfA -
25
26
             rotatedA[i] = A[mappedElementAfterRotation
27
         }
28
29
         return rotatedA;
30
     }
31
32
```

Analysis summary

The solution obtained perfect score.

Analysis

expand all Example tests		Example tests
•	example first example test	√ 0 K
•	example2 second example test	√ OK
•	example3 third example test	√ 0 K
expa	ind all C	orrectness tests
•	extreme_empty empty array	√ OK
•	single one element, 0 <= K <=	√ OK 5
•	double two elements, K <= N	√ OK
•	small1 small functional tests,	√ 0K < <n< td=""></n<>
•	small2 small functional tests,	√ OK <>= N
>	small_random_all	rotations ✓ OK

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	small random sequence, all rotations, N = 15		
•	medium_random medium random sequence, N = 100	√ OK	
•	maximal maximal N and K	√ OK	

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