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Training ticket

Session

ID: training5YEJGH-9KT
Time limit: 120 min.

Status: closed

Created on: 2016-04-17 00:25 UTC
Started on: 2016-04-17 00:25 UTC
Finished on: 2016-04-17 00:33 UTC

Tasks in test

1 | **CyclicRotation**
Submitted in: Java

Correctness

100%

Performance

not assessed

Task score

100%

Test score ?

100%

100 out of 100 points

EASY

1. CyclicRotation

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

score: 100 of 100



Task description

A zero-indexed 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 also moved to the first place.

For example, the rotation of array A = [3, 8, 9, 7, 6] is [6, 3, 8, 9, 7]. The goal is to rotate array A K times; that is, each element of A will be shifted to the right by K indexes.

Write a function:

```
class Solution { public int[] solution(int[] A, int K); }
```

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

For example, given array A = [3, 8, 9, 7, 6] and K = 3, the function should return [9, 7, 6, 3, 8].

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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Solution

Programming language used: Java

Total time used: 8 minutes

?

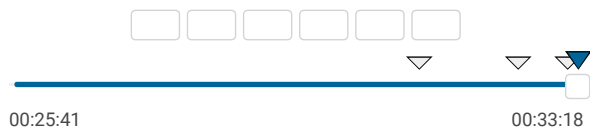
Effective time used: 8 minutes

?

Notes: not defined yet

Task timeline

?



Code: 00:33:18 UTC, java, final,
score: 100

[show code in pop-up](#)

```
1 // you can also use imports, for example:
2 // import java.util.*;
3
4 // you can write to stdout for debugging purposes, e.g
5 // System.out.println("this is a debug message");
6
7 class Solution {
8     public int[] solution(int[] A, int K) {
9         int N = A.length;
10        int[] R = new int[N];
11        for (int i = 0; i < N; i++) {
12            R[(i+K)%N] = A[i];
13        }
14
15        return R;
16    }
17 }
```

Analysis summary

The solution obtained perfect score.

Analysis

?

| | | |
|------------------------------|--|------|
| expand all | Example tests | |
| ▶ example | example test | ✓ OK |
| expand all | Correctness tests | |
| ▶ extreme_empty | empty array | ✓ OK |
| ▶ single | one element, $0 \leq K \leq 5$ | ✓ OK |
| ▶ double | two elements, $K \leq N$ | ✓ OK |
| ▶ small1 | small functional tests, $K < N$ | ✓ OK |
| ▶ small2 | small functional tests, $K \geq N$ | ✓ OK |
| ▶ small_random_all_rotations | small random sequence, all rotations, $N = 15$ | ✓ OK |
| ▶ medium_random | medium random sequence, $N = 100$ | ✓ OK |
| ▶ maximal | maximal N and K | ✓ OK |

Training center