

### Congratulations

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## Training ticket

### Session

ID: trainingDR3VBJ-3C6  
Time limit: 120 min.

### Status: closed

Created on: 2016-06-04 10:07 UTC  
Started on: 2016-06-04 10:07 UTC  
Finished on: 2016-06-04 10:11 UTC

### Tasks in test

1 | **CyclicRotation**  
Submitted in: Java

### Correctness

87%

### Performance

not assessed

### Task score

87%

87%

87 out of 100 points

EASY

### 1. CyclicRotation

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

score: 87 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: 4 minutes

?

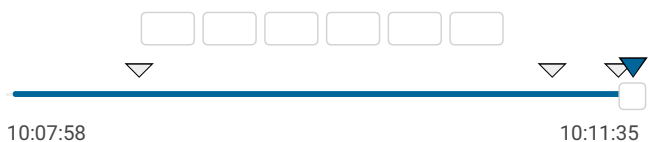
Effective time used: 4 minutes

?

Notes: not defined yet

#### Task timeline

?



Code: 10:11:35 UTC, java, final,  
score: 87

[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         K = ( K > A.length ? K % A.length : K);
10        if (K==0) return A;
11
12        int[] tmp = new int[K];
13
14        int K1=0;
15        // store last elements in temporary array
```

```
16     for (;K1<K;K1++) {
17         tmp[K1] = A[A.length - K + K1];
18     }
19
20     // shift values
21     for (int i=(A.length - 1 - K1);i>=0;i--) {
22         A[i+K1] = A[i];
23     }
24
25     // copy elements from temporary array into begin of A
26     for(int i=0;i<tmp.length;i++) {
27         A[i] = tmp[i];
28     }
29
30     return A;
31 }
32 }
```

Analysis summary

The following issues have been detected: runtime errors.

Analysis



Example tests	
▶ example example test	✓ OK
Correctness tests	
▶ extreme_empty empty array	✗ RUNTIME ERROR tested program terminated unexpectedly
▶ single one element, 0 <= K <= 5	✓ OK
▶ double two elements, K <= N	✓ OK
▶ small1 small functional tests, K < N	✓ OK
▶ small2 small functional tests, K >= 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