Codility_

CodeCheck Report: trainingBJUJR7-P24

Test Name:

Check out Codility training tasks

Summary Timeline

Tasks summary

Task	Time spent	Score
ArrListLen Python	4 min	100%

Total score

100%

Tasks Details

1. ArrListLen

Easy

Compute length of a single-link list encoded in an array.

Task Score	Correctness	Performance
100%	100%	Not assessed

Task description

A non-empty array A consisting of N integers is given.

Array A represents a linked list. A list is constructed from this array as follows:

- the first node (the head) is located at index 0;
- the value of a node located at index K is A[K];
- if the value of a node is −1 then it is the last node of the list;
- otherwise, the successor of a node located at index K is located at index

Solution

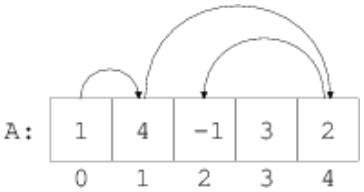
Programming language used:	Python
Total time used:	4 minutes
Effective time used:	4 minutes
Notes:	*not defined yet*

Task timeline

A[K] (you can assume that A[K] is a valid index, that is 0 ≤ A[K] < N).

For example, for array A such that:

```
A[0] =  1
A[1] =  4
A[2] = −1
A[3] =  3
A[4] =  2
```



the following list is constructed:

- the first node (the head) is located at index 0 and has a value of 1;
- the second node is located at index 1 and has a value of 4;
- the third node is located at index 4 and has a value of 2;
- the fourth node is located at index 2 and has a value of −1.

Write a function:

```
def solution(A)
```

that, given a non-empty array A consisting of N integers, returns the length of the list constructed from A in the above manner.

For example, given array A such that:

```
A[0] =  1
A[1] =  4
A[2] = −1
A[3] =  3
A[4] =  2
```

the function should return 4, as explained in the example above.

Assume that:

- N is an integer within the range [1..200,000];
- each element of array A is an integer within the range [−1..N−1];
- it will always be possible to construct the list and its length will be finite.

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

12:40:25 12:44:07

Code: 12:44:06 UTC, py, final, score: **100** show code in pop-up

```
1  # you can write to stdout for debuggin
2  # print("this is a debug message")
3
4  def solution(A):
5      # Implement your solution here
6      length = 0
7      current = 0
8
9      while current != -1:
10         current = A[current]
11         length += 1
12
13     return length
14
```

Analysis summary

The solution obtained perfect score.

Analysis

expand all	Example tests	
▶	example example test	✔ OK
expand all	**Correctness tests**	
▶	extreme_single one/two elements	✔ OK
▶	smal_functional1 functional tests	✔ OK
▶	smal_functional2 functional tests	✔ OK
▶	some_zero_elems array [2,-1,1,0,0,0]	✔ OK
▶	quite_long 4000 elements used, increasing	✔ OK
▶	long_reverse 5001 elements used, left-right	✔ OK
▶	very_long 10**5 elements used, decreasing	✔ OK
▶	max_size max size, left-right	✔ OK