

Find equilibrium index of an array

Problem:

Write a function in Ruby/JavaScript to find equilibrium index of an array.

A zero-indexed array A consisting of N integers is given. An equilibrium index of this array is any integer P such that $0 \leq P < N$ and the sum of elements of lower indices is equal to the sum of elements of higher indices.

$$A[0] + A[1] + \dots + A[P-1] = A[P+1] + \dots + A[N-2] + A[N-1].$$

Sum of zero elements is assumed to be equal to 0. This can happen if $P = 0$ or if $P = N-1$.

For example, consider the following array A consisting of $N = 7$ elements:

$$A[0] = -7$$

$$A[1] = 1$$

$$A[2] = 5$$

$$A[3] = 2$$

$$A[4] = -4$$

$$A[5] = 3$$

$$A[6] = 0$$

$P = 3$ is an equilibrium index of this array, because:

$$A[0] + A[1] + A[2] = A[4] + A[5] + A[6]$$

$P = 6$ is also an equilibrium index, because:

$$A[0] + A[1] + A[2] + A[3] + A[4] + A[5] = 0$$

Instructions:

1. Created a Github repo for this exercise.

equilibrium_index

2. Follow TDD and best practices.

For solving above problem used TDD (wrote test cases in rspec) approach with best practices of ruby coding.

3. We expect you to complete the exercise and share the repo url with us.

https://github.com/rah00l/equilibrium_index.git

Test Cases Result

```
rahul@rahul-Inspiron-N5010 equilibrium_index (master) $ rspec
.....
Finished in 0.0057 seconds (files took 0.1279 seconds to load)
6 examples, 0 failures

rahul@rahul-Inspiron-N5010 equilibrium_index (master) $
```