

ASSESSMENT TEST 2023

MERN

Problem Solving Question:

Write a function `shuffle(arr)` that takes input an array of numbers and returns an array by ordering the numbers in following fashion:

$$a1 \leq a2 \geq a3 \leq a4 \geq \dots$$

Please note that there are multiple outputs that are possible for a given array. Your function can return one possible output.

Example: If input is [2, 1, 5, 3, 11, 7], one possible output could be [2, 7, 3, 11, 1, 5]

Once you are done, please respond back with following details:

Description	Response
URL that contains the solution in Javascript or Typescript. 1. Go to: https://codecollab.io (or any other editor of your choice) 2. Write your code (ensure it runs successfully) 3. Share the link of the URL	https://github.com/prajalgupta/shuffle.git
Time complexity (Big O notation) of your solution	O(n)
Space complexity (Big O notation) of your solution	O(1)
List all possible test cases	<code>shuffle([2, 1, 5, 3, 11, 7])</code> should return [2, 7, 3, 11, 1, 5] <code>shuffle([1, 2, 3, 4, 5])</code> could return [1, 3, 2, 5, 4] or any other valid shuffle <code>shuffle([10, 5, 20, 15])</code> could return [5, 20, 10, 15] or any other valid shuffle <code>shuffle([1])</code> should return [1] <code>shuffle([])</code> should return []

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