

**This Document contains 2 assessments:**

1. **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 <= a2 >= a3 <= a4 >= ....

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 |  |
| **Time complexity (Big O notation) of your solution** |  |
| **Space complexity (Big O notation) of your solution** |  |
| **List all possible test cases** |  |

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1. **System Design Question:**

Using **object-oriented programming**, please implement an alarm clock. An alarm clock has following features:

* It displays the current time
* A user can create any number of alarms by specifying the alarm time and day of the week and time when the alarm should alert
* A user can snooze an alarm maximum of 3 times at an interval of 5 minutes each.
* A user can delete an alarm

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

|  |  |
| --- | --- |
| Description | Response |
| **URL that contains the solution (preferably 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 |  |

**NOTE:**

* **If you are not familiar or comfortable with object oriented programming, we suggest you give this** [**article**](https://www.educative.io/blog/object-oriented-programming) **a quick read to ensure you understand it before you attempt it.**
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