

## Code Challenge #17 Sorted Squared Array (Easy)

### Sorted Squared Array ● ☆

Write a function that takes in a non-empty array of integers that are sorted in ascending order and returns a new array of the same length with the squares of the original integers also sorted in ascending order.

#### Sample Input

```
array = [1, 2, 3, 5, 6, 8, 9]
```

#### Sample Output

```
[1, 4, 9, 25, 36, 64, 81]
```

```
1. function sortedSquaredArray(array) {  
2.   array.sort((a, b) => a - b)  
3.   secondArray = []  
4.   for(let i = 0; i < array.length; i++) {  
5.     values = array[i]  
6.     secondArray.push( values * values)  
7.   }  
8.   return secondArray = secondArray.sort((a, b) => a - b)  
9. }  
10.
```

## Explanation

This problem requires you to square the values of an array that are sorted in ascending order. Our main method is called `sortedSquaredArray` which takes as an argument the input array. We first sort this array using `.sort((a, b) => a - b)`. We then create a secondary array called `secondArray` which is empty. Using a for loop we iterate through each values of the array and then push the square of the values (`values * values`) into the `secondArray`. We then return the `secondArray` after we sort the `secondArray` using the same array sorter method used earlier.