

Coding challenges

Mohamed Boucetta

Exercise 0.1 Build a function which takes an array of integers and returns its minimum and maximum. For instance, if the array is [3, 6, -1, -8, 78, -33], the function returns [-33, 78].

Solution : We declare two variables min and max and we initialize them by the first value of the array. Then we iterate through the items of the array and compare them two min and max, if min is greater than the item (resp. max is less than the item) we set min = item (resp. max = item).

A screenshot of a code editor window titled 'listoffunctions'. The code is written in Swift and defines a function `minMaxArray` that takes an array of integers and returns a pair of integers representing the minimum and maximum values. The function initializes `maxArray` and `minArray` to the first element of the array. It then iterates through the array, updating `maxArray` if a larger element is found and `minArray` if a smaller element is found. Finally, it returns the pair `[minArray, maxArray]`. Below the function definition, an array `Q = [5, 6, 3, 5, 3]` is declared, and the function is called with `minMaxArray(array: Q)`. The execution results are shown on the right side of the editor, indicating that the function returns `[3, 6]`.

```
1 import Foundation
2
3 func minMaxArray(array: [Int]) -> [Int] {
4     let n = array.count
5     var maxArray = array[0]
6     var minArray = array[0]
7
8     for i in 1..
```