

Feature	majorityElement Function	MajorityElement Class
Structure	A standalone function that processes an array directly.	A class-based approach with a method (findMajorityElement) for finding the majority element.
State Management	No state is maintained, all variables (map, value1, s, etc.) are local to the function.	The state (like the frequency map) is encapsulated within the class and reusable through different methods.
Constructor	No constructor is used, values are passed directly to the function.	No constructor in this specific implementation, but the class structure makes it easy to add if needed.
Modularity	Less modular. You would have to rewrite the logic or repeat the code if you wanted to reuse it.	More modular. Can reuse the class and add new methods for extended functionality.

Return Value	Returns all elements that have the highest frequency as an array of [element, count].	Returns a single majority element that appears the most in the array.
Data Processing	Uses a Map to count occurrences, then finds all elements with the maximum count.	Uses a Map to count occurrences, then finds the element with the highest count (majority element).
Output	Returns an array of the elements with the highest frequency, not limited to just one.	Returns a single majority element with the highest count.
Flexibility	Can handle multiple "majority" elements if they have the same frequency.	Designed to handle only one majority element, assuming there's a single element with the highest count.

Use Case	Suitable when you want to find all elements with the maximum frequency, even if there are ties.	Suitable when there's one majority element that dominates in frequency.
Method/Function Call	Called directly with the input array, like <code>majorityElement([1, 2, 3, 3, 4, 2, 3, 2, 4, 4])</code> .	Called on an object, like <code>majorityElementFinder.printMajorityElement(inputArray)</code> .
Ease of Understanding	Easier to understand for beginners, as it's a simple function with no additional structure.	More object-oriented, potentially harder to understand for beginners, but offers better reusability.
Scalability	Harder to scale, as each function would need to be standalone or rewritten.	Easier to scale, as you can add more methods to the class or reuse the class in larger projects.