### **Question 1 [15 Points]**

You are given an array of positive integers containing n elements. Your task is to find the first repeating element in the array using a hash-based approach. A repeating element is one that appears more than once in the array, and among all repeating elements, you must return the one that repeats at the **largest index difference**. If no element repeats, return -1.

Use a hashmap to efficiently solve the problem by storing and checking the elements as you traverse the array.

| Sample Input | Sample Output |
| --- | --- |
| 6  10 5 3 4 3 5 | 5  Explanation:  Both 3 and 5 repeat, but 5 repeats with a larger index difference (indices 1 and 5).  The difference of indexes for  3 is 2 (4-2 = 2)  and  5 is 4 (5-1 = 4) |
| 5  1 2 3 4 5 | -1  Explanation:  No elements repeat, so the output is -1. |
| 6  1 1 3 4 3 3 | 3  Explanation:  Both 1 and 3 repeat, but 3 repeats with a higher index difference indices (2 and 4)  3 appears at index no 2 and first repeat occurs at index no 4 . Since we are taking the first repeating element, we will not consider the very last 3 at index no 5.  So the difference of indexes for  1 is 1 (1-0 = 1)  and  3 is 2 (4-2 = 2) |