Q1: Given an integer array nums, return the third distinct maximum number in this array. If the third maximum does not exist, return the maximum number.

Example 1:

Input: nums = [3,2,1]

Output: 1

Explanation:

The first distinct maximum is 3.

The second distinct maximum is 2.

The third distinct maximum is 1.

Example 2:

Input: nums = [1,2]

Output: 2

Explanation:

The first distinct maximum is 2.

The second distinct maximum is 1.

The third distinct maximum does not exist, so the maximum (2) is returned instead.

Example 3:

Input: nums = [2,2,3,1]

Output: 1

Explanation:

The first distinct maximum is 3.

The second distinct maximum is 2 (both 2's are counted together since they have the same value).

The third distinct maximum is 1.

Constraints:

1 <= nums.length <= 104

-231 <= nums[i] <= 231 - 1

Q2: Write a function that takes in a string and returns the first non-repeating character in that string.