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DIVIDE&CONQUER PROBLEMS

Apply the divide and conquer strategy to implement the following recursive functions.

a) Function that takes an array of strings as input parameter and returns the longest string.

   Ex: data = ['john', 'adam', 'alexander', 'robert', 'gerard']

b) Function that takes a string s and a character c as input parameter and returns the number of occurrences of c in s.

c) Function that takes an array of strings as input parameter and returns a list with the strings with length less than or equal to 2.

   Ex: words=["the", "doctor", "arrived", "at", "the", "door", "of", "his", "home"]

d) Function that receives an ordered array of integers A and a value x, and returns the index of x in array A. If x does not exist, the function returns -1.