

Lab-8

1. Input is an n -length array A of distinct integers and an index $0 \leq r < n$. Let $x=A[r]$. Rearrange the array in such a way that all the element less than x appears before the element x and all the elements larger than x should be after the element x in the rearranged array. You are not allowed to use an additional array in the program. You must rearrange the elements in the given array (i.e., the array where you store the input). Also, count the number of reads you make from the array (that is, statements containing $A[i]$ for some i) and print that count. Try to minimize the count.

Example: $A=[1, 7, 2, 10, -1, 3, 8]$ and $r=3$. Here $A[3]=2$.

Possible outputs: $[-1, 1, 2, 10, 8, 7, 3]$, $[1, -1, 2, 10, 7, 8, 3]$, etc