

Linear Sorting Algo  $O(n)$ .

Counting Sort - Count karna hain  $\rightarrow$  frequency.

Input  
array.

2 2 3 1 2 3 2 1

Count  
arr

0	2	1	2
0	1	2	3

1 1 2 2 2 3 3

Count array  
size =

$k = \text{Max element (array)} +$

$1$   
 $= 3 + 1$

$= 4$ .

TC  $\rightarrow O(n+k)$  , SC  $= O(k)$

Radix Sort, Shell sort  $\rightarrow$  H/W