

 $T(\longrightarrow O(n \log n) S(\longrightarrow O(1),$ 

Linear Sorting Algo

Country Nort- Count frequency of elements.

2 1 3 3 1 2 2 1.

D country was land + ]

ComtArr 0 — ive integer. 2  $10^{18}$ T(- 0 (n+ k)  $S(\rightarrow o(k)$ 11122233 TC- 0( Linear 1000 pm.

0 0 1 001 001 00 pm.

0 0 2 904 005 904

9 0 4 0 0 5 062 find no. of digit in maxel=3.

0 6 2 904 3 Add 0's in from other numbers. RADIX Sort-001 O And max elements 04 6 0 0 5 3 3 0 62 907 3) Add 0's in front of 0 7 L 0 Mus numbers. --> 10<sup>18</sup>  $T \longrightarrow O(n \times h)$ > 19 Lyv.

HW - Shell Sort.