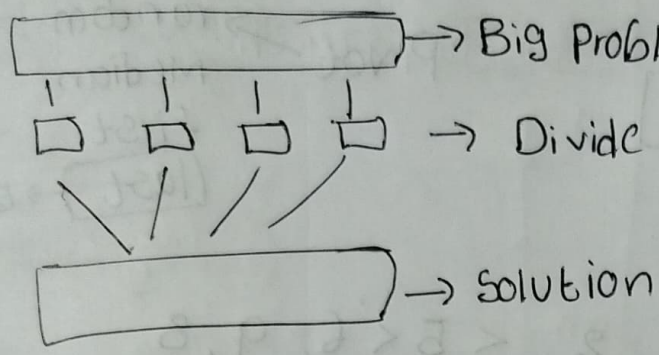
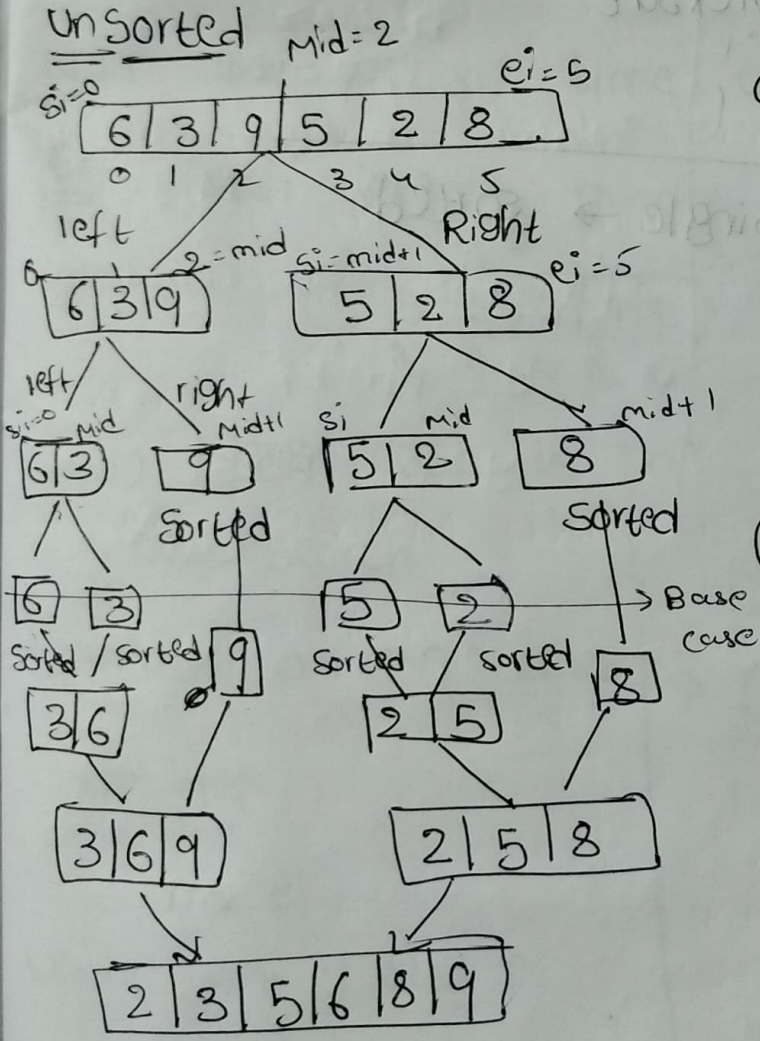
Divide & Conquer



Merge Sort



APProach

① Divide → Mid

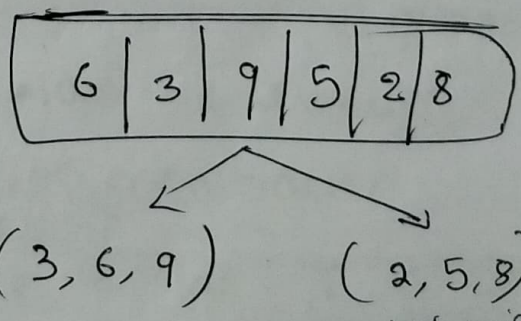
St = 0, end = n-1

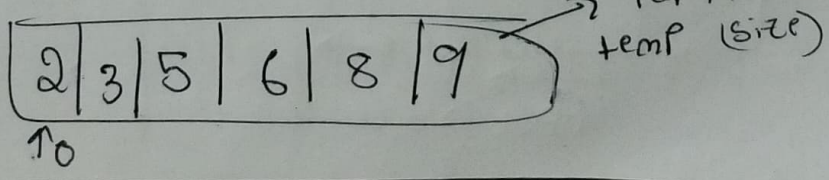
mid = (St+end)/2 (or)

Si + (end - St)/2

② Merge sort (left)
Merge sort (right)

③ Merge





(3 6 9 ✓
(2 5 8 ✓

Problem 2

@Quick Sort

6	3	9	8	2	5

Pivot → random
Median
first
last → Easy

① Pivot (last element)

② Partition (Parts)

③ quicksort (left)
quicksort (right)

3, 2 < 5 < 6, 9, 8

↓ quicksort ↓ quicksort

Base

Single → sorted