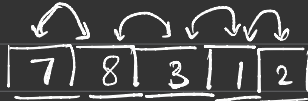


## Bubble Sort

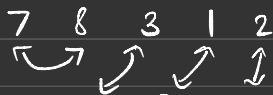
$O(n^2)$

largest Element  $\rightarrow$  END

NOTE - We will take elements and heaviest element will be pushed to the last.



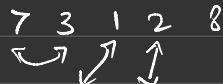
LOOP 1 -



// comparing which is greater

7, 8, 3, 1, 2  $\rightarrow$  7, 3, 1, 2, 8

LOOP 2 -



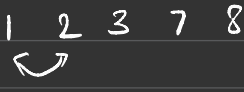
7, 3, 1, 2, 8  $\rightarrow$  3, 1, 2, 7, 8

LOOP 3 -



3, 1, 2, 7, 8  $\rightarrow$  1, 2, 3, 7, 8

LOOP 4 -



1, 2, 3, 7, 8

Total loops = No. of ele - 1  
 = 5 - 1  
 = 4 loops

Ascending Bubble sort - Largest element  $\rightarrow$  END

Descending Bubble sort - Smallest element  $\rightarrow$  END