

SELECTION SORT $O(n^2)$ front \leftarrow Smallest Element

NOTE - There will be 1 swap per 1 iteration

7	8	3	1	2
0	1	2	3	4

LOOP 1 -

7 8 3 1 2
Smallest = 0[7] \swarrow \nearrow \nearrow \nearrow // comparing which is smallest
2[3] \swarrow
3[1] \swarrow Swap this now with 1st position
= 1 8 3 7 2

LOOP 2 -

1 8 3 7 2
Smallest = 1[8] \swarrow \nearrow
2[3] \swarrow \nearrow
4[2] = 1 2 3 7 8

LOOP 3 -

1 2 3 7 8
Smallest = 2[3] \swarrow \nearrow = 1 2 3 7 8

LOOP 4 -

1 2 3 7 8
Smallest = 3[7] \swarrow = 1 2 3 7 8

LOOP 5 -

1 2 3 7 8
Smallest = 4[8] \swarrow = 1 2 3 7 8