Selection Sort

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Iteration 1: Arr[6]

[0]	[1]	[2]	[3]	[4]	[5]
30	20	60	50	10	40

Sel_pos pos

30 > 20 ? Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
20	30	60	50	10	40

Sel_pos pos

20 > 60 ? no

[0]	[1]	[2]	[3]	[4]	[5]
20	30	60	50	10	40

Sel_pos pos

20 > 50 ? no

[0]	[1]	[2]	[3]	[4]	[5]
20	30	60	50	10	40

Sel_pos pos

20 > 10 ? Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
10	30	60	50	20	40

Sel_pos pos

10 > 40 ? no

[0]	[1]	[2]	[3]	[4]	[5]
10	30	60	50	20	40

Iteration 2:

[0]	[1]	[2]	[3]	[4]	[5]
10	30	60	50	20	40

Sel_pos pos

Arr[sel_pos] > arr[pos] ? no

[0]	[1]	[2]	[3]	[4]	[5]
10	30	60	50	20	40

Sel_pos pos

30 > 50 ? no

[0]	[1]	[2]	[3]	[4]	[5]
10	30	60	50	20	40

Sel_pos pos

Arr[sel_pos] > arr[pos] ?
Yes
Swap

[0]	[1]	[2]	[3]	[4]	[5]
10	20	60	50	30	40

20 > 40 ? no

[0]	[1]	[2]	[3]	[4]	[5]
10	20	60	50	30	40

Sel_pos pos

20 > 40 ? no

[0]	[1]	[2]	[3]	[4]	[5]
10	20	60	50	30	40

Iteration 3:

[0]	[1]	[2]	[3]	[4]	[5]
10	20	60	50	30	40

Sel_pos pos

Arr[sel_pos] > arr[pos] ?
Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
10	20	50	60	30	40

Sel_pos pos

50 > 30 ? Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	60	50	40

Sel_pos pos

30 > 40 ? no

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	60	50	40

Iteration 4:

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	60	50	40

Sel_pos pos

60 > 50 ? Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	50	60	40

Sel_pos pos

50 > 40 ? Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	40	60	50

Iteration 5:

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	40	60	50

Sel_pos pos

Arr[sel_pos] > arr[pos] ? Yes
swap

[0]	[1]	[2]	[3]	[4]	[5]
10	20	30	40	50	60

No. of Iterations/passes/ cycles : n-1

= no. of elements = 6

= 6-1

= 5

No. of Comparisons = (n-1) + (n-2) + (n-3) ….. 1

= 5 + 4 + 3+ 2+ 1 = 15