PW SKILLS

Selection Sort

0	1	2	3	4	5	6
~~20~~	~~50~~	~~10~~	~~15~~	17	25	65
10	15	20	50			

min_idx = i (i = 0)

min_idx = ~~0~~ 2

```
for(j=i+1 to n-1){
    if(arr(j) < arr(min_idx){
        min_idx = j;
    }
}

if(min_idx != i){
    swap arr(min_idx) & arr(i)
}
```

i = 1

min_idx = ~~1~~ ~~2~~ 3

Note

1) At every iteration, we get smaller element in the extreme left.

2) Time complexity = $O(n^2)$

Space complexity = $O(1)$

3) More num of swaps = Bubble sort

Siple swap in every iteration = selection sort