

Homework 2.2

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2.2-1 $O(n^3)$

2.2-2 selection sort pseudocode

```
# the last one in array A doesn't need to compare
for i=1 to A.length-1
    min = A[i]
# here the last one in array A should be take into consideration
    for j=i+1 to A.length
        if min > A[j]
            min = A[j]
        k = j
    j++
    A[k] = A[i]
    A[i] = min
i++
```

The best and worst case running times are both $O(n^2)$, for the for loop to search the minimal element is essential for every time.

2.2-3 In some certain condition