One possible way to sort a sequence $A[1..n]$ in ascending order is to find the minimum element in the sequence, switch its position with $A[1]$, then find the minimum element for the remaining sequence $A[2..n]$, switch position with $A[2]$, so on so forth. The whole sequence will be sorted.

1. Write pseudocode for the algorithm.

2. Implement it by any language you prefer.

3. Analyze the running time of the algorithm. What is the worst-case running time in terms of rate of growth? What is the best-case running time in terms of rate of growth? How would you compare it with QUICKSORT?