Recitation 11

Practice Problems

Bubblesort and insertionsort the sequence
7, 6, 5, 4, 3, 2, 1
1, 2, 3, 4, 5, 6, 7

Try bubble sort and insertion sort on the following random sequence
7, 5, 1, 3, 4, 2, 6
3, 2, 7, 5, 6, 4, 1

R-12.6 An algorithm that sorts key-value entries by key is said to be ***straggling*** if any time two entries e_i and e_j have equal keys, but e_i appears before e_j in the input, then the algorithm places e_i after e_j in the output. Describe a change to the merge-sort algorithm in Section 12.1 to make it straggling.

R-12.7 Suppose we are given two n-element sorted sequences A and B each with distinct elements, but potentially some elements that are in both sequences. Describe an $O(n)$-time method for computing a sequence representing the union $A \cup B$ (with no duplicates) as a sorted sequence.

C-12.26 Describe and analyze an efficient method for removing all duplicates from a collection A of n elements.

Implement insertionsort