

Exercises for Lecture 3

March 14, 2023

Exercise 1 (Cormen 8.2-3). Suppose that we were to rewrite the for loop header in line 10 of the counting sort pseudocode (see Cormen's book or the slides) as

for $j = 1$ **to** $A.length$

Show that the algorithm still works properly. Is the modified algorithm stable?

Exercise 2 (Cormen 8.3-1). Illustrate the operation of Radix Sort on the following list of words: COW, DOG, SEA, RUG, ROW, MOB, BOX, TAB, BAR, EAR, TAR, DIG, BIG, TEA, NOW, FOX.