CISC320 Last homework sets

May 12, 2015

- For Monday, May 11, the problem of the day is to do one of the following two problems. You may do both for extra credit.

  1. Ben Bumblefingers observes that his typing errors are mostly transpositions ("ht" instead of "th") and insertions (accidental key presses on the keyboard). He wants his spell-checker to suggest words that his typing matches with a small edit distance in transpositions and insertions (but no deletions). Design an algorithm to determine the edit distance from text T of length n (what he typed) to word W of length m (a dictionary word, say). Be clear about the nature of your cache and how you use it.

  2. DM exercise 8-6, but for part a, the denominations are {1,7,11} instead of {1,6,10}.

- For Wedesday, May 13, the problem of the day is to do one of the following three problems. You may do two (but not all three) for extra credit.

  1. DM exercise 8-2.

  2. DM exercise 8-11. What is an efficient algorithm here? cubic time = trivial, quadratic time = easy, linear time = the goal.

  3. DM exercise 8-15, part (c). You may find it useful to google the "two egg problem".

- For Monday, May 18, the problem of the day is DM exercise 9-8.

About homework and quiz grading: There have been a total of 30 homework and quiz questions including the extra credit. The syllabus calls for grade weights of 26% for homework and 4% for misc. This 30% will be for the combination of homework and quizzes. Your bottom 6 scores will be dropped and the grade will be based on the remaining 24 scores. Sakai's gradebook can't handle this scheme so the record on Sakai underestimates your hw score.