On-Line Algorithms – F17 – Lecture 4

Lecture, February 8

We finished chapter 1 and began on chapter 2 in the textbook. (I finished Theorem 2.1 in the discussion section on February 10.)

Lecture, February 14

Kim Skak Larsen will lecture on chapter 3 and begin on chapter 4.

Lecture, February 17

Kim Skak Larsen will finish chapter 4.

Problems for February 21

1. Problems that we didn't finish on February 15, but we will postpone the last 3, since we haven't covered that yet.

2. Do Exercise 3.2 in the textbook.

3. Do Exercise 3.3 in the textbook.

4. Do Exercise 3.6 in the textbook.

5. Do Exercise 3.7 in the textbook.

6. Do Exercise 3.8 in the textbook.

7. Do Exercise 3.9 in the textbook.

8. Do Exercise 3.10 in the textbook.

9. Prove that for any pair of deterministic lazy paging algorithms, A and B, any sequence length n, cache size k, and memory size N, for any number of faults s, the number of sequences of length n where A has s faults is equal to the number of sequences of length n where B has s faults. Do this by induction on the length of the sequence, n, by finding a bijection f which maps sequences where A has a particular number of faults to sequences where B has the same number of faults.