Institut for Matematik og Datalogi
Syddansk Universitet

April 21, 2005
JFB

On-Line Algorithms – F05 – Lecture 11

Lecture, April 19

We finished chapter 7 (no proofs) and covered chapter 8 in the textbook.

Lecture, April 26

We will cover up through section 9.4 of chapter 9 in the textbook (we will be skipping the remainder of the chapter).

Lecture, May 3

We will cover through section 10.4 of chapter 10. We will look at the algorithms in sections 10.6 and 10., but skip the proofs.

Problems for May 2

1. Do Exercise 9.1.
2. Explain the results in chapter in 9 with respect to the paging problem: the traversal algorithm, the lower bound, and the work function algorithm.
3. What problems would you run into in defining the classical and dual bin packing problems as metrical task systems? What changes can you make to the problem definitions to come closer to making it work?
4. What is the complexity of the dynamic programming procedure used for computing the cost of an optimal offline algorithm for the k-server problem when the request sequence is of length n. For the special case of a uniform metric space a faster algorithm exists. What is its complexity?