Institut for Matematik og Datalogi   November 17, 2010

Syddansk Universitet   Peter Schneider-Kamp

Programmering B
2nd Weekly Note (E10, Week 46)

Reading for Week 46

Sections 12.1 – 12.4 (except for the section on "Graphs") in "Java Software
Solutions".
Pages 25–26 in "Eksempler på datastrukturer og algoritmer".
Pages 80–83 in "Binary Tree ADT".

Lecture: Tuesday, November 16, 10-12 (U37)

We first introduce the ADT for lists and look at different designs and imple-
mentations. Then we look at ADTs for queues, stacks.

Lecture: Thursday, November 18, 8-10 (U140)

We first introduce the 1st part of the project. Then we look at the ADT for
trees and how to use trees for sorting.

Discussion: see schedule for time and room

Implement the ADT for sets with the following operations:

- boolean contains(int x); // check if x is in set

- void remove(int x); // remove x from set

- void add(int x); // insert x into set

First, write down a specification and a design for this ADT.

Then, first implement the ADT based on keeping the integers sorted in an
ArrayList. Finally, experiment with a binary search tree implementation
using the Node class from the slides for the lecture on November 16.