

## Object-Oriented Programming 4th Weekly Note (E13, Week 48)

### **Reading for Week 48**

Sections 7.1, 7.2.1, 7.2.3–7.2.4, 7.3.1–7.3.4, 7.4, 7.5.1–7.5.2, 9.1.1–9.1.2, and 9.2 of “Introduction to Programming Using Java”

### **Lecture: Monday, November 25, 08-10 (U27)**

First we will refresh and deepen our understanding of recursion. Then we will transfer the idea of recursion from recursive algorithms to recursive data structures. We will see how a simple recursive data structure can provide another interesting implementation of the list ADT.

### **Discussion: see detailed schedule on course home page**

Meet in the assigned room.

Take the Quizzes 1, 5, 6, 7, 8, 9, 10, and 12 from Chapter 6 of the course book and discuss them in groups of 2 or 3. Then discuss your answers with the other groups.

Then go together through the full example of Section 6.7.4 of the course book. Discuss all details of the implementation in `CalcPanel.java` until you understand them. The file `CalcPanel.java` is available from:

<http://imada.sdu.dk/~petersk/DM537/programs/CalcPanel.java>

### **Lab: see detailed schedule on course home page**

Solve Exercises 7.2 and 7.6 (using `Scanner` and `PrintStream` instead of `TextIO`) from the course book. Then solve Quiz 9.3 followed by Exercise 9.3. If you are fast, also solve Exercise 7.3.