

# Programming A

## 4th Weekly Note (E11, Week 38)

### Exam Project Part 1

There are two projects to choose from: one called “Fractals and the Beauty of Nature” and “From DNA to Proteins”. You find the description on the course home page:

<http://www.imada.sdu.dk/~petersk/DM502/#project>

### Reading for Week 38

- Chapters 10-14 of “Think Python: How to Think Like a Computer Scientist”

### Lecture: Monday, September 19, 12-14 (U20)

First, we will introduce the first part of the exam project.

Then we will learn about lists, dictionaries, and tuples.

### Lecture: Wednesday, September 21, 10-12 (U26)

In this lecture we will repeat and deepen our knowledge about tuples. Then we will try to understand which data structures are useful in which situations. Finally, we will learn more about file handling.

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

Please meet up in the room indicated on the course home page. The teaching assistant might decide to move to the terminal room. In case the room is empty (e.g. when you come later), go to the terminal room. Compared to labs, the focus of these hours is sometimes more on discussing and analyzing programs and programming elements than on programming.

Do Exercises 8.2–8.3 and 8.8–8.11 from the textbook. Discuss how to approach Exercises 9.7–9.9 and 10.5. If you are quick, begin with exercises for the lab.

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

Do Exercises 8.1, 8.4–8.7, 8.12, and 9.1–9.6 from the textbook. Implement Exercises 9.7–9.9. Then do Exercises 10.1–10.5.

If you are very quick, do Exercises 10.6–10.10.

### Study Groups

Use your study group to discuss how to approach problems, i.e., how to come from understanding the problem to understanding what to do. Discuss the first part of the project and, if you are unsure, which of the two projects (fractals or genetics) to pick. While you have to do the project individually, you will find that talking to your fellow students is very, very helpful.