Introduction to Artificial Intelligence

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Spring Semester 2022

Exercise Sheet 0

Due: February 25, 2021

Points total: 4 bonus marks

Important I: The purpose of this exercise sheet is to introduce you to the tools we use in the lecture and to the rules we use for the exercise sheets. You will need the tools not only this week but the whole semester, and the rules do not only apply for this sheet but for all exercise sheets.

Important II: The due date for this bonus sheet is on a Friday. This is an exception; submission of regular exercise sheets is due on Wednesdays at 23:59.

Important III: Please read the whole exercise sheet once before you start to prepare any solutions, since some exercises contain information that is relevant for the entire submission!

Exercise 0.1 – Building Groups

1 bonus mark

Exercise sheets in the Introduction to Artificial Intelligence course *must* be solved in exercise groups that form at the beginning of the semester. The task of this exercise is to form an exercise group of *exactly* three students. If you cannot find fellow students to form an exercise group with, you can use the *Exercise Group Coordination* channel in the MOODLE forum for this lecture to announce that you are looking for an exercise group. Note that we are not moderating this, so please consider to *answer* someone who already announced that they are looking for a group instead of just writing that you are looking for one.

Exercise sessions can be attended in presence or virtually via zoom. We recommend that all group members choose the same mode in general, because exercise sessions our recommended place to work on the exercises together as a group. When looking for a group, mention your personal preference to find peers that prefer the same option.

If you successfully formed an exercise group, submit the solution to this exercise sheet **as a group:** write the names of all group members at least on top of the first page of your submission. Furthermore, **make only one submission**, i.e., only one group member should upload the solution to MOODLE. **Read exercise 0.4 for additional information on the submission process of your solution.**

Otherwise, we randomly generate exercise groups from the pool of students who submitted this exercise sheet alone and the students who do not submit a solution to this exercise at all.

Exercise 0.2 – Literature

1 bonus mark

To participate in this lecture, you need access to the book "Artificial Intelligence: A Modern Approach" (4th edition) by Stuart Russell and Peter Norvig. Recite the first sentence of Chapter 11.1. **Read exercise 0.4 for additional information on the submission process of your solution.**

Exercise 0.3 – Programming

1 bonus mark

Some exercises in this lecture will be programming exercises in the Python programming language. This particular exercise (the one you are currently reading) is not to improve your coding skills but to make the submission process of your solution as general as possible (which requires this "dummy" programming exercise).

Write a small Python program that prints all correct answers to the following question:

Which of the following is considered plagiarism?

- Copy the solution of another exercise group.
- Discuss an exercise with members of another exercise group, then write down the solutions separately.
- Copy from the sample solution of previous years.
- Altering existing code by renaming variables or swapping lines where possible.
- Discussing a solution with the tutors and implementing their feedback.

Read exercise 0.4 for additional information on the submission process of your solution.

Exercise 0.4 – Submission

1 bonus mark

We have the following general rules for preparing your solution and submitting it on MOODLE.

- Exercise sheets must be submitted in groups of three students. Please submit a single copy of the exercises per group (only one member of the group does the submission).
- Create a single PDF file (ending `.pdf`) for all non-programming exercises. Use a file name that does not contain any spaces or special characters other than the underscore "_". If you want to submit handwritten solutions, include their scans in the single PDF. Make sure it is in a reasonable resolution so that it is readable, but ensure at the same time that the PDF size is not astronomically large. Put the names of all group members on top of the first page. Make sure your PDF has size A4 (fits the page size if printed on A4). Submit your single PDF file to the corresponding exercise assignment in MOODLE.
- For programming exercises, only create those code text files required by the exercise. Put your names in a comment on top of each file. Make sure your code compiles and test it. Code that does not compile or which we cannot successfully execute will not be graded. Create a ZIP file (ending `.zip`, `.tar.gz`, or `tgz`; *not* `.rar` or anything else) containing the code text file(s) (ending in `.py`) and nothing else. Do not use directories within the ZIP, i.e., zip the files directly.
- Do not upload several versions to MOODLE, i.e., if you need to resubmit, use the same file name again so that the previous submission is overwritten.

For this exercise sheet, this means preparing a PDF file containing the solutions for exercises 0.1 and 0.2 and a ZIP file containing the solution for exercise 0.3 (a Python file).