

Exercise Sheet 1 for Algorithmen und Datenstrukturen (Sommer 2026)

Hand In: Until 2026-04-24 18:00, on ILIAS.

Exercise Policy

- The exercise problems take up the material from lecture. Working on them deepens understanding and increases proficiency, and I consider them an integral part of the course.
- You will require at least 50% of the total points to take the exam.
- You may collaborate on the problems and hand in your solutions as a group of 3 students.
- If you make use of external sources, make sure to clearly mark the used parts as such, including unambiguous references to the original sources. In case of websites, at least add the access date and use permanent links whenever possible (e. g., for Wikipedia). You may cite any publicly accessible sources, but take their credibility into account: you are responsible to verify what you cite.

Plagiarism is not tolerated in academia, be it external sources, other groups' submissions, or genAI answers; severe cases can lead to expulsion from university.

- This applies even more so to generative AI answers. The tasks are designed to be solved without AI tools; don't deprive yourself of the learning experience.
- Collaboration between groups on conceptual solutions to the exercises is fine, but each group must work out a detailed submission individually. In these cases, add a quick statement with which groups you joined forces to work on a given problem.

Administrative stuff

Automatic scoring. To facilitate immediate feedback on coding tasks, we have partnered with `kilonova.ro` to provide *automatic scoring* for selected exercises during this course. You can create an account on `marburg.kilonova.ro`, where you can submit code to solve certain exercises on the problem sheets. You will be able then to receive instant feedback as to the correctness and speed of your algorithmic approach. The full text of such problems will be on `marburg.kilonova.ro`, and we will indicate the URL of the problem in the problem sheet. These statements will be available in both German and English.

Note that the use of `kilonova` is highly recommended, but remains optional – if you do not want to use the system, you can manually submit your code to us. You will then receive feedback together with the written submissions.

Java. The main instruction language for the course will be Java. Nonetheless we will allow many more languages on `marburg.kilonova.ro` for your convenience.



Problem 1 (Hello Kilonova)

10 points

Make an account at `marburg.kilonova.ro` [↗](#) for your team and report your username on the submission for this problem on ILIAS.

To test the system, solve <https://marburg.kilonova.ro/problems/1> [↗](#).

We encourage you to make individual accounts per team member and submit individual solutions for more practice. Please coordinate to submit at least one solution via the team account, as well, though.

If you choose not to use `kilonova.ro`, instead of submitting your username here, submit your Java code for Problem 1.

Problem 2 (Java quiz)

30 points

Complete our online quiz on Java basics: tiny.cc/ads-java-quiz [↗](#).

Report the emails you used in your submission on ILIAS. For full marks, all team members have to make an individual submission of quiz answers.

Points here are for *participation* only, not for correct answers.



Problem 3 (NextPrime)

40 points

Solve marburg.kilonova.ro/problems/3 (nextprime) [↗](#).