

ALGORITHMS AND DATA STRUCTURES ALGORITHMEN UND DATENSTRUKTUREN

April 22, 2018

Labs - General Information

Version 1.1

1 General Information

The lab descriptions and building blocks are available from the course home page in Moodle:

`https://moodle.informatik.tu-darmstadt.de/course/view.php?id=396`

You should always check that you are using the latest version of the description, you find the version number on the first page.

Before you contact a tutor or assistant to get help, check the corresponding forum in Moodle for common questions (and answers). If you do not find an answer, feel free to ask a tutor or send an email to:

`aud@cdc.informatik.tu-darmstadt.de`
subject: "LAB <No.>"

1.1 Timeline

There will be 5 practical exercises during the whole semester. The corresponding submission deadlines for your solutions are:

- Lab 1: May 6, 2018 @ 23:59
- Lab 2: May 20, 2018 @ 23:59
- Lab 3: June 3, 2018 @ 23:59
- Lab 4: June 17, 2018 @ 23:59
- Lab 5: July 1, 2018 @ 23:59

Note that these are firm deadlines. Delayed submissions are not accepted by the submission system and will not be considered. Missing submissions will be counted as **failed**.

The exercise descriptions and building blocks will be published at least 2 weeks before the deadlines, respectively.

2 Building blocks - general structure

For each practical exercise, we will provide a description as well as a zip archive containing the building blocks for the exercise. In the description you will find an explanation of the task, as well as a description of the contained classes and where you have to insert your code.

The source files are split into two packages:

- A 'frame' package: This package contains auxiliary classes. You **MUST NOT** change these classes.

- A ‘lab’ package: This package contains the classes where you have to implement your methods. Any source code changes that you make outside the ‘lab’ package will be ignored when you upload your solution to the submission system. The places you are allowed to edit are additionally marked within the source code.

Please note that you **MUST** use the code framework we provide. Otherwise your code cannot be tested and will not be evaluated.

Please comment your code. Without comments it will be very hard to understand for your tutor, but also for you, when you have to explain it to your tutor in the individual testing at the end of the semester.

2.1 Java, JUnit

We use Java 8 (<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>). To ensure that your solution is accepted please only use functions defined in Java 8. Further we use JUnit version 5 (<http://junit.org>). The projects are created with Eclipse (<https://www.eclipse.org/downloads/>). To work with Eclipse simply extract the provided zip file and use the ‘Import Existing projects into Workspace’ function to import the provided project.

3 Submission procedure

For each exercise, you will have to upload your solution to the **Submission System** which is available at:

`https://aud.cdc.informatik.tu-darmstadt.de/cgi-bin/index.cgi`

before the corresponding deadline. Otherwise, the exercise will be graded as **failed**.

Please upload only files and folders from the lab folder, preserving the file structure. Do not upload the whole project. Pack the whole lab folder into a zip file and call it <MatrikelNumber><Last Name>.zip, e.g., 1234567Doe.zip.

Your source code will directly be compiled and tested. The result of the tests will be displayed. You can repeatedly upload your source, e.g., in case that the test cases fail and you have to improve your implementation. If your solution passed the tests and was successfully submitted, you will get a receipt by email to your RBG/ISP email address. Make sure that you obtain this receipt and keep it.

The submission system requires you to log in with your **RBG/ISP credentials**. In case you do not have an RBG/ISP account please visit

`https://support.rbg.informatik.tu-darmstadt.de/service`

to get one.

4 Plagiarism

It is not allowed to copy a solution from another student or from the Internet. You are encouraged to discuss the solution with your friends, but everybody must implement and test his/her own program. We will test the solutions for plagiarism, e.g., with JPlag.

`https://jplag.ipd.kit.edu/`

If there is a suspicion, this will result in a personal questioning. If plagiarism for one of your submissions is finally confirmed, you are **NOT** allowed to participate in the exam and you **CANNOT** obtain the Studienleistung anymore.

5 Grading

Passing the Studienleistung for AuD is a **prerequisite** to be allowed to participate in the exam.

In order to pass the Studienleistung:

1. You **MUST** submit a correct solution for at least 3 out of the 5 practical exercises. A solution is counted as correct if and only if all test cases run by the submission system succeed.
2. You **MUST** pass an individual testing at the end of the semester. For the testing at least one of your submitted solutions for the practical exercises will be chosen at random. Which one is chosen will not be known prior to the testing.
3. You **MUST NOT** upload plagiarized solutions for any one of the exercises to the submission system.

During testing you should be able to describe and discuss both the problem itself and your solution. You should be able to describe your code and explain it. It is therefore important that you prepare yourself before the testing. Having well structured and well commented code will help you to do this.

The tutors are responsible and have full power for assessing your knowledge level and for grading you. Only if there are any problems and you cannot reach an agreement with your tutor, contact the assistants in the office hours or send us an email at

`aud@cdc.informatik.tu-darmstadt.de`

Good Luck!