Instructions

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## **Instructions for Submitting Coursework**

**Document Format.** You can write up your answers in a plain text file or with your favorite word processor (e.g., Word, Open Office, or Latex). Your submission, however, should be in PDF format.

**Identify Yourself.** Please, include name, student ID, email address, and code of your lab group (A, B, or C) in your submission.

Acknowledgment of Collaborators. Your assignment should represent your own effort. However, you are not expected to work alone. It is fine to discuss the exercises and try to find solutions together, but each student shall write down and submit his/her solutions separately. It is good academic standard to acknowledge collaborators, so if you worked together with other students, please list their names.

**Pseudocode.** When writing pseudocode, please use the set of instructions listed on slides 33 and 34 of the slide set of the first chapter.

Programming Tasks. For a programming task, your solution must contain:

1. The Java source code.

The code should be well documented, that is commented appropriately. Try to apply the advice on good coding style on the course pages (which will be added in the next few days).

2. Tests for the implemented source code.

For each class in the Java source code, write a separate test class. (Usually, there will be only one class per question.) The test class contains for each method in the original class a test method that tests the implemented method.

The test method should run one or more tests of the implemented method. A test provides input for the method, prints out the input, runs the method, and prints the output.

The test class should have a final main method that calls all test methods, one after the other.

3. Code for running time experiments.

When you conduct running time experiments, write a separate class for the experiments where you generate inputs for the methods you test, measure the running time, and report the outcome.

Write the experiment class in such a way that it is possible to perform the experiments by calling the main method of the class.

4. A separate file with explanations.

The explanations of your solution to the problem or the analysis of running time results should be reported in a separate PDF file. As said before, you can genereate the PDF from a plain text file or produce it with your favorite word-processor (e.g., Word, Open Office, or Latex).

The explanations should also say how to use your code, for instance, how to run the tests and how to generate running times where required.

For programming tasks, it is not allowed to use any external libraries (e.g., java.util.ArrayList) or system methods (e.g., array.clone()) if it is not stated otherwise.