

Software construction - Assignment 1

Deadline: Friday, 2 October 2020 at 6 pm

First, you must create a new folder for this assignment in your GitHub repository. The folder must be named: "SoftCon2020_Assignment_1". Use this folder to upload all your answers for this assignment.

In this week's assignment, each group is assigned to a Java project. You can see the project assigned to your group in the list below:

Groups 1-9: <https://github.com/cryptomator/cryptomator>

Groups 10-18: <https://github.com/LibrePDF/OpenPDF>

Groups 19-27: <https://github.com/pmd/pmd/tree/master/pmd-core>

Groups 28-36: <https://github.com/JodaOrg/joda-time>

Groups 37-46: <https://github.com/kotcrab/vis-ui>

So, groups from 1 to 9 are assigned to 'cryptomator', groups from 10 to 18 to 'OpenPDF', and so on.

Groups assigned to pmd (groups 19-27) can consider only the folder *pmd-core* as reported in the link above.

The assignment is divided in two parts:

Part 1: Use what you learned in Lecture 2 to understand the project assigned to you. Once you have a clearer understanding of the structure of the project, do the following:

- Draw the architecture of *at least* 3 packages and 10 classes. You should decide the level of abstraction of the architecture and use natural language to explain your decision.
- Draw a call graph, starting from the most prominent entry point. Attention: some projects may have several entry points; the most prominent one is usually not contained in an example or test folder/class.

Address all of these points in a **ANSWERS.md** file and add it to the assignment folder.

Part 2: Write the data flow of six methods of your choice selected from the project assigned to your group. You must choose **six** methods: **two** methods containing *for loops* and **four** with *if/else* statements. Each method must have 15 or more lines of code; if you cannot find any method of this size, please make sure to have at least 15*6 lines of code analyzed in total.

Address all of these points in the **ANSWERS.md** file in the assignment folder.

Important notes

Write all your answers in the **ANSWERS.md** file. Do not use a file with a different name. Also, please ensure that it is clear which answers belong to part 1 and which to part 2 of the assignment.

Please note that no commits can be added to the assignment folder on GitHub after the deadline. Any commit added after the deadline **will not** be counted toward the evaluation of the assignment.