Software Engineering
- Assignment 1 -

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Deadline: 2022-feb-24 23:59

Submission: PDF document per group, by email to TAs

1 Introduction

The semester project consists of implementing a **Web service for Corona disease management**. Technically, the system will use Web technology as trained in the preceding semester project of the *Databases and Web Services* module: a Web frontend accessing a database-supported backend. Implementation languages will be (from bottom to top) SQL, python, HTML, CSS, JavaScript. Hence, the project will be assumed that you have the contents of the prerequisite courses on hand, now we are going to make use of them.

Before we start coding we need to find out what to build actually. The Software Engineering course and project instructor will act as **your customer**, answering questions you have – however, do not expect that all information is presented upfront, you need to ask. After all, a customer of a software company does not have the necessary structuring and architecture skills to present requirements in a ready-made manner.

Among the **skills trained** will, first and foremost, be programming of non-trivial software systems in changing teams. Further, immersion into new tools is an important exercise, plus several more – like self-organisation.

2 Task: Requirements & System Design

Your task in this assignment is twofold:

- capturing **requirements**; one way of doing this is to give a general user-centric description of what the system should do, accompanied by a simple list of (user and system) requirements listing all the properties the resulting software must have.
- Devising a **system design**. This includes comprehensive UML class and sequence diagrams, complemented by a suitable textual description.

Techniques for establishing such documents, and the required contents, are discussed in class. Importantly, determining what's missing and collecting relevant information is part of your responsibility. In other words: You cannot say afterwards "we have not been told that".

Hints:

- Questions can be asked in class or on the mailing list, course-advcs2@lists.jacobs-university.de .
- One practical question that may guide you towards comprehensiveness: "*Is this document self-contained enough so that a programmer who has never heard of the game before can implement it?*"
- If you find relevant information elsewhere (and you are encouraged to seek!) you may use (short) text portions and screenshots as long as you cite appropriately, otherwise we have to file it under plagiarism.
- The **expected result** is a single PDF document per group consisting the two parts *Requirements* and *Design*. Clearly indicate the team members! Mail the PDF to the TAs before the deadline.

So…let's roll and get our hands dirty! ☺