# Advanced Software and Systems Engineering TAPAS Application

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## **Team Reflections**

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#### **Overall Impression**

The subject, the group project, the supervision, and support have been appreciated by the whole team.

We have started with the project on day one and hence the first semester (until the semester break) was workload wise quite doable. A group project always consumes quite a lot of time, however we managed to organize ourselves well.

Starting with the semester break, when the requirements got more complicated and we thereafter had to work with other teams, things got more challenging.

We have spent multiple days of our break on the project and could still not achieve everything we wanted to, which was a bit frustrating.

Although a API was defined with the other groups, this was one of the main challenges we will cover in the next part.

With the last milestone being quite close, we are also a bit proud of the project, although it is everything we wanted to achieve. The functionality is provided and tested and we can work with (most) of the other teams.

#### Challenges

There were two main challenges in the project. First, it was quite difficult to distribute the workload evenly, especially coding equally. In the first semester (until the semester break) this was less of an issue because the tasks were rather broad and the code not extremely complex. We did many coding sessions together where we basically did pair-programming, sometimes with all four. With the increasing complexity of the program and noticing that one needs to understand the whole thing to add value, this was certainly not possible to distribute evenly. For a future project we want to be aware of this and try to address this directly during the project.

Second working with the other groups was a challenge. Although the API was defined quite clear, there were apparently still ambiguities. We solved them in a way where we sent a message again if it failed in a different format, so the other party can accept it. On our side we have implemented error handling, hence even if the API is not followed fully (i.e. an additional /), we can still process the task. This is not the goal and we did not plan to keep this, however it was necessary to work with the different group.

### Learnings

- Be aware of workload balancing issues early on in the project and address it directly
- An API documentation cannot be too detailed
- In person meetings are not fully replaceable by online sessions
- Try and error as one of the key approaches in such a projects