

# Project Structure Plan

## AAS Digital Nameplate Generator

Customer: Rentschler & Holder

Company address: Rotebühlplatz 41, 70178 Stuttgart

Supplier: Team 2

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# Version Control

Version	Date	Author	Comment
1.0	28.10.2022	Sophie Kirschner	Initialize the PSP and create a first version
1.1	06.10.2022	Sophie Kirschner	Refine the document with suggestions of Erika Zhang and Adrian Khairi
1.2	13.10.2022	Sophie Kirschner	Adjusted chapters 2.1 and 2.2 with suggestions of every team member
1.3	16.10.2022	Sophie Kirschner	Adjusting the PSP based on customer meeting on 14.10.2022 and Adrian Khairi's input
1.4	19.10.2022	Sophie Kirschner	Adding Gantt charts
1.5	19.10.2022	Sophie Kirschner	Refining formulations based on Adrian Khairi's - and Erika Zhang's review

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## 1 Introduction

This document is **an extension** of the GitHub “Projects”. It shall illustrate further details about the general project structure and the intention behind every major decision. The actual project structure plan is visualized via the GitHub Projects.

## 2 Team Structure

Our Team consists of six members. The scope as well as the roles of each member are defined in the Business Case document.

It is inefficient to let everybody work on every type of task. Hence, it is necessary to form subgroups, each focusing on their tasks. Resulting in an growth of the team’s productivity since everybody works on one type of task. The subgroups are divided by the main goals of the project: Creating certain documents and developing the project. These subgroups are called “Team Formalities” and “Team Code” internally.

### 2.1 Team Formalities

Team Formalities focusses on the documents, which have to be written, e.g. the Business Case. Furthermore, a team member of each subgroup writes the meeting protocols. The tasks, which are part of this subgroup’s scope, are tagged with the milestone “Documentation 3rd Semester” in the GitHub Projects. The team members focusing on these aspects are Adrian Khairi, Sophie Kirschner and Erika Zhang.

Adrian Khairi shall write the Business Case, prepare as well as document the weekly- and Team Formalities meeting protocols and create needed standardized templates, e.g. the meeting protocols or the time tracking. Additionally, he shall illustrate along with designing the time tracking analysis by using the tool “Tableau” and create as well as present the presentation. Furthermore, he shall read the texts written by other team members to examine, if the texts meet the quality standards expected by the customer. Additionally, he checks whether the documents are logically coherent and refines them based on the aspects mentioned above.

Sophie Kirschner shall write the Project Structure Plan and create Gantt charts for the third and fourth semester.

Erika Zhang is a team member of both subgroups and shall therefore operate as the interface between both. She shall write the Customer Requirements Specification and prepare as well as document the Team Code meeting protocols. Furthermore, she shall support the subgroup by reading the documents written by other team members. Moreover, she checks whether the documents are systematically coherent. As well as converting documents of other team members into Markdown format to post it on GitHub. Thereby Erika Zhang shall especially focus on the code related aspects to check the quality of those chapters as well as supporting Adrian Khairi by checking the texts for quality standards. Her tasks relating to Team Code shall be mentioned in chapter 2.2.

## **2.2 Team Code**

Team Code shall focus on creating the actual product. Their main goal for the third semester is to program the functional aspects, e.g. the requests to the AAS Server through input by the user as well as simple input and output in a User Interface written with the React framework. The User Interface does not have the function to generate a full nameplate. Their goal for the fourth semester is to create a refined User Interface and generate the nameplates according to the DIN specification. The tasks, which are part of this subgroup's scope, are tagged with the tag "Team Code" in the GitHub Projects. The team members focusing on these aspects are Mika Kuge, Janin Ahlemeyer, Maris Koch and Erika Zhang.

Mika Kuge shall create the base React project as well as the GitHub repository and work on the presentation. Aside from these administrative tasks, he also works on the issues in the GitHub Projects, e.g. implementing the User Interface concept, as well as writing the Software Architecture Specification. He shall implement more functions to the project, which can be seen in the GitHub issues.

Janin Ahlemeyer shall implement JavaScript methods which can request all relevant data from the AAS server, research the best suited open source licenses and test

certain parts of the project, especially since she has created an AAS on her local host. She shall also write the Software Requirements Specification.

Maris Koch shall implement data refinements, e.g. methods that can be called to execute the requests from Janin Ahlemeyer's task, research a JavaScript library that can create QR-codes and document most parts of the GitHub Wiki. He shall also implement more functions to the project regarding the export to ".png" and ".svg" together with Mika Kuge, which can be seen on the GitHub projects. Furthermore, he is involved in analyzing the DIN norm to filter the relevant information from the AAS response, which is supposed to go onto the nameplate. Additionally, he has to create a User Manual as well as writing the Module documentation.

Erika Zhang shall set up a Wiki for the GitHub and prepare as well as document the subgroup meetings. Additionally, she shall create user interface concepts using Figma.

### **3 Presentation**

Both subgroups chose one person to work on the presentation for the third semester. This person should have the best overview of all the tasks relating to his subgroup and be a good presenter. The team members, which shall work on the presentation, are Adrian Khairi for Team Formalities and Mika Kuge for Team Code. Those two shall present the progress of their subgroups as well as illustrate the general project and its specifications. Furthermore, they shall focus on showing the most important aspects and meet with the expectations of the customer. To keep it clear and simple, Adrian Khairi and Mika Kuge shall also hold the presentation of the fourth semester.

### **4 Risks and Costs of Work Packages**

There are administrative risks, e.g. illnesses like getting Covid-19, financial risks and workload risks. To all of those risks a solution shall be shown in the Business Case. Furthermore, the total costs, the costs of work packages and the evaluated costs of each team member as well as further details can also be found in the Business Case document.

## **5 Platforms and Usage**

To work on this project, the team needs a platform to communicate and to share files. The goal is to create an intern work environment where everyone can easily use and understand every part of it. The chosen platforms are Discord and GitHub. Discord shall be used for communication, e.g. weekly meetings or subgroup meetings, while GitHub shall be used for sharing and uploading files, e.g. code parts or the requested documents, as well as structuring the work packages.

The Discord group has subchannels which should divide the way of communication. There are subchannels for both subteams as well as a channel for communicating with all team members. Furthermore, there is a channel informing about the latest repository news.

The GitHub repository has folders in which code or documents can be uploaded. It also has a Wiki, which shall inform a reader or rather the customer about certain implementation details. The GitHubs Projects is used to structure the work packages using project issues. Those issues are separated and allocated to team members by using three milestones, “Documentation 3rd Semester”, “Proof of Concept” and “Presentation”. These milestones are just for the third semester and shall be further adjusted in the fourth semester.

## **6 Meetings and Protocolling**

There is a meeting with all team members every week to inform everyone about the project’s process and the problems team members are facing. Other details, like general information, are also prepared and shared with all team members by Adrian Khairi. This meeting is called “Weekly” internally. Subgroup meetings are held, whenever a meeting between the subteam members is needed. The important subteam meetings are protooled by either Erika Zhang for Team Code meetings or Adrian Khairi for Team Formalities meetings. The finished protocols are uploaded to a folder in the GitHub. Furthermore, the protocols are standardized by using a meeting protocol template created by Adrian Khairi. This aspect should help to keep the documen-

tation as clear as possible for the customer. It contains an agenda, the type of meeting, the protocol writer, the meeting participants, the meeting duration, a short summary of each agenda aspect, problems and the work progress of each team member.

## **7 Gantt Charts**

The Gantt chart of the third semester illustrates the deadlines of the most important issues of the GitHub Projects for the third semester. The chart can be found on the following link: [Gantt chart of third semester](#)

The deadlines and issues for the fourth semester shall be refined to the GitHub repository at the beginning of the fourth semester. An first impression of the most important issues of the fourth semester can be seen opening this link: [Gantt chart of fourth semester](#)

The Gantt charts show the connections between certain issues, e.g., the User Interface concept to its implementation. The deadlines are also put into the GitHub Projects, however, the charts visualize the time management more clearly. The “Documents” tasks are separate tasks, which have to harmonize with each other. The “Proof of Concept” tasks are leading to the implementation of a prototype after researching and testing the details. Lastly, the “Presentation” milestone shall be done at the end of the third semester to fit the most important progresses into the presentation. This also applies to the final presentation at the end of the fourth semester.