**Research plan – group project**



LLM insights group 2

# **Introduction**

In order to be able to complete the activities described in the project plan, research needs to be carried out by all members of the group. This research plan contains the main research question, as well as the sub-questions and the methods by which they are going to be answered.

Please keep in mind that the DOT framework is used as an inspirational skeleton. Most of the questions will be answered by methods of the DOT framework, as well as common sense.

# **Opportunity**

The project in question brings forward the opportunity to do preliminary research as to what the previous group that worked on the project has left behind. Furthermore, the group needs to find out the best way to implement system logging and insights, as well as how to visualize them in the best way.

The practical part of the research is related to how the group can assure the quality of the software they are developing and make sure that the clients are satisfied by doing code reviews and product demos.

# **Desired outcome**

By the end of this research the findings must be documented in a research report. The research report is going to contain the answers to the preliminary research, as well as document the more practical aspects of it.

The estimated time to conduct the preliminary research is about 6 weeks. At that point the group will have a good understanding of how to move forward with the rest of the practical research. The whole research report will be delivered at the end of week 15.

# **Main research question:**

How do we allow administrators of CY2 and organization developers to gain more insight about the system operation.

# **Sub-questions, ordered chronologically and by importance:**

1. What is the current system’s architecture
2. What solutions exist already that can help with system monitoring
3. What is a good way to track system operation
4. What is an efficient way to visualize system operation data
5. How can quality and system stability be ensured?
6. How is the project’s progress going to be validated by the product owner?

# **Approach**

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| **Question** | **Research approach/type** | **Description** |
| What is the current system’s architecture? | Library/Field   * Expert interview * Document analysis | It makes sense to ask the people who have developed the software how it functions. Knowledge gaps will be filled in by reading documentation |
| Can an existing solution help with system monitoring? | Library/Field   * Available product analysis * Domain modelling | Checking already existing products can give good insights into what can be added to the application. Domain modelling would reveal if a solution including a 3rd party is a suitable fit for the project. |
| What is a good way to track system operation? | Library   * Best Good and Bad Practices * Expert interview | In order to understand how to properly track system operation, the general practices must be studied. Additionally, interviewing an expert in the domain would be of great value. |
| What is an efficient way to visualize system operation data? | Library/Workshop   * Interview * Prototyping | Visualizing system data greatly depends on the structure of the data as well as its contents and target audience. An interview of the system’s potential user will reveal useful insights. Moreover, visualization can be helped by prototyping with Figma. |
| What is the quality and stability of the system | Lab/Workshop   * System test * Code review | To try and deem whether the system is stable and free it would need to be tested as a whole. Moreover, code reviews can be organized between the developers and Koen to raise the quality of the code |
| How can the system be improved further | Showroom   * Peer review * Product review | Since the sprints are 2 weeks long, there is always demos of the progress and product (if available). These demos can serve as product and peer reviews to get feedback from the product owners. |