



Summary of Project "SuppleMate"

The members of team Flowlab started to know each other during courses in Summer quarter 2023. When we all chose the Software Engineering course, we decided to form a team and make our project together. When brainstorming for good ideas for our team project, everyone voted for the idea of “supplement tracker”, brought up by Gregy. Because we all struggled with loss tracking of supplement intake in our lives. It would be nice to develop an app that can recommend supplements intake and help us to track it.

When we started to draft the requirement specification, things became real. We realized that a real life project needs to consider more real life issues. It needs machine learning and data analysis to have recommendation data. It needs to make sure the recommendation value is safe for people. And people at different ages and genders have various nutritional needs. With only 4 people, within 2 months, it's impossible for us to fulfill all the requirements.

After analyzing the project timeline and configuration of our resources, we decided to only aim for fundamental requirements in our first prototype, and use Figma to make a prototype to show how the app should work.

We decided to have the following requirements:

Functional requirements: The system must be able to track a wide variety of supplements, including their ingredients, dosage amounts, and scheduling information, and set reminders for users to take their supplements. The system must be easy to use and navigate, and be secure and protect user data.

Non-functional requirements: The application shall provide a response time of less than 2 seconds for all user interactions. The system should support a minimum of 1000 concurrent users without performance degradation. The application should handle a minimum of 1000 supplement entries per minute. The application should have a comprehensive privacy policy, and users should have control over their data. The app should provide users with optional reminders for supplement intake. Provide user support through email, in-app chat, or a dedicated support portal.

During the development of the project, some unexpected tragedy happened to our team members, over half of team members are not able to put full effort into the project. Even though we tried our best to finish the project, only part of the features are functional by the end of development. We managed to make the following functions work: The application has a Figma prototype, which shows the application is pleasant in appearance. The app has a simple layout and clear logic on each page. The application contains error handling that should prevent unexpected crashes/undesired output. The application has functional code for customer registration, log in, daily log for users to add notes, security protocols. The application setted database and uses bigquery for easy data sharing through Google API.