Architectural design

# Introduction

This document is giving context regarding the architectural design used for the Medicine Tracker we application. With the help of this document will it give understanding to outsiders and future developers of the structure of the application.

# Software tool

The application uses several software’s including:

* React: Developing the Frontend
* MongoDB: Storing data for the microservices
* RabbitMQ: as the message broker for a microservice to communicate with another service.

# Structure context

In this subchapter will each component shown in the diagram below be given context to for better understanding of their functionalities and chose reason of design.

Diagram, shape

Description automatically generated

## User service

The user microservice is for all user stories that are focused on a user account in the application. It holds personal information of the user. Further, the service is in charge of the different roles that are present for a user to have and what they are allowed to do in the application. It has no data to the medications the user takes in the service.

Such functionalities that the service is in charge are:

* Holds the user personal data such as name, date of birth, password, email, phone number, etc.
* Roles that are present in the application such as user that tracks its meds, caregiver as a doctor of a user and a caregiver as a family of a user.
* It holds what methods are allow for certain users to do. For instance, a user can update and change their personal information, but certain caregivers cannot.
* It holds the friend request list of each user. For instance, if a user friends, blocked or request to be friends with a user is pending.

The tables that are found in this microservice is linked to the UML Class Diagram. (link to the diagram)

## Medication Inventory service

The medication Inventory service holds all the medications information there are in general in the system. It has no connection to a user and is only focused on the medication details.

Such functionalities that the service is in charge are:

* List of medications and supplements there are such as Paracetamol, Zaleplon (sleeping pills), Beam etc.
* Description of each medication.

The tables that are found in this microservice is linked to the UML Class Diagram. (link to the diagram)

## Medication tracker service

The Medication tracker service holds the information of the medication a user takes, the time to take the medication and a tracker service for a user to indicate if they have taken their medication.

Such functionalities that the service is in charge are:

* Holds information of what medication a user takes, the amount and what days and time of the day.
* Holds information if the user has taken their medication.
* Holds information regarding feedback a user can make of a day taken the medication.

The tables that are found in this microservice is linked to the UML Class Diagram. (link to the diagram)