

Project 1 Proposal

# Medication Monitor

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## 1.0 Overview

### 1.1. *Purpose and Objectives*

The purpose of this project is to create a general medication assistance app that helps with tracking medication doses, dose schedules, reminders, and refills. This proposed app would allow users to log into an account and register their own medications using automated features (camera assistance).

A reminder system will be provided for the patient to set alarms according to their dose schedule, along with a calendar to monitor prescription refills. For patients that have to take five or more medications simultaneously, the app provides a camera tool to assist in collecting medication by using computer vision. A smartphone would be required to download the app, and an internet connection to update patient information as it changes. Our app will utilize the React Native Framework for frontend components and Node.JS for backend.

The intended audience are patients that have complex dose schedules and numerous daily medications. As the quantity of medications increases for a patient, the more complicated it becomes to organize dose schedules. A high quantity proposes a risk of incorrect dosages or forgetting a dose.

### 1.2. *Project Description*

Our medication monitoring application will have the following features:

- Register account / Login account
- Alert system (alarm, calendar)
  - The system can design a schedule using internal system information about the medications to assist users in managing their medication schedule.
  - Or, users can set up their schedule manually.
- Register medication(s) to account
  - Users can manually enter information about their medications.
  - Users can utilize their device camera to identify medications from either the prescription label on the bottle, or the pills themselves.
- View medication information (side effects, drug interactions, warnings, etc)
  - The system maintains access to a medical database that contains all of this relevant information and provides it to the user.
- Identify medication / Count medication
  - This feature allows the user to verify that they have collected all of the correct medications that they need to take at that particular time.
  - This feature can also be used as a general identification / counting tool.