

# COSC341 Project Report

## Tasks

### *[Task 1]: Add/edit/delete medication*

The first task is creating a graphical interface for the user to keep a log of the medications they are taking. The medications that the user chooses to track with the app are then displayed on the homepage of the app with the relevant information. The page would also have buttons that allow the user to add, edit and delete the medications they are currently taking as well as set reminders that will alert them to take their medication at given intervals. The feedback regarding the GUI of the add/edit menus were positive with only the option of also tracking when a prescription needed to be refilled needing to be added.

### *[Task 2]: Reading the logs*

The second task is allowing the user to read the logs of when medications were taken. We decided to implement this through using a calendar that would display if the medications were taken for each day. In the paper prototype we decided to indicate this with each day having a color, however when a user has multiple medications to keep track of, this method wouldn't be able to convey which medications were taken in depth. Instead, it was decided that once the user selects a day in the calendar by clicking on it, the medications scheduled and taken will be shown to the user.

### *[Task 3]: Indicate that a dose was taken*

The third task is allowing the user to indicate when a medication was taken. In the paper prototype it had been decided that the method used would be a page allowing the user to swipe a slider to confirm a piece of medication, which would help prevent accidental confirmations. However, during implementation and testing, it was discovered that this isn't as simple and intuitive as confirming using a button confirmation.

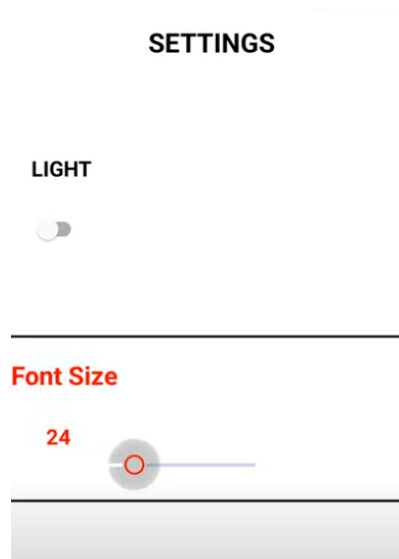
### *[Task 4]: Edit user settings*

The fourth task is allowing the user to edit settings. This would include font size, color scheme (light/dark mode) and notification sounds. During the feedback stage, it was suggested that having custom notification sounds for each medication might help the user distinguish them, allowing for the reminder to be effective without the need to visibly check the phone. This was added to the add/edit interface instead of the settings page.

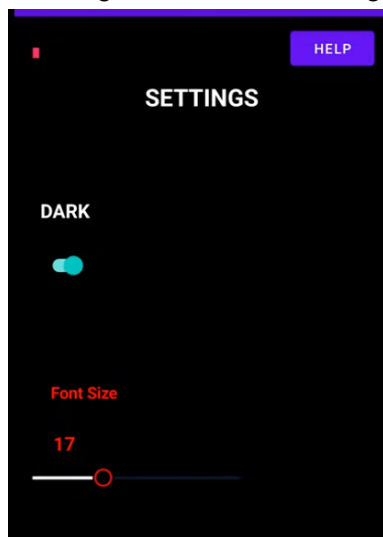
## Design Principles

### *Visibility*

Allowing the user to adjust the size of text on the app, making text easier to read especially since the primary users are older and tend to have worse eyesight.



Allowing the user to select light or dark mode for the app, which can help reduce eye strain.



*Feedback* - mapping user inputs, highlights day on calendar  
When a user inputs information during adding/editing medication information, the app updates to display their inputs. This allows the user to see if any mistakes are being made

PCCMEDICARE2.0

Add Medication

Med. Name

Dosage

Frequency

Reminder

Start Date

Reminder Attempts

Refill Date

Whenever a day is selected to be viewed on the calendar it is highlighted.

< December 2022 >

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

### Constraints

Having the user input specific items about the medication to make sure that all the important information isn't lost.

### Add Medication

Med. Name

Dosage

Frequency weekly

Reminder OFF

Start Date Year 2010 Month 01 Day 01

Reminder Attempts 1

Refill Date Year 2010 Month 01 Day 01

Refill Reminder OFF

Notification Sound a

Notes

The calendar doesn't allow the user to track medication for a future date.

4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Schedule for 2022-12-24

Medication Taken

Take asa 5mg

Refills Due:  
tylenol

BAC Can't Log For Future Date! OG

### Consistency

Making sure that the page layouts are consistent

The information from the add/edit pages display on the main page

### Medication List

- asa 5mg daily
- tylenol 10mg weekly

### Add Medication

Med. Name asa

Dosage 5mg

Frequency weekly

### Affordances

Using the calendar to track medication schedule and logs over a long period of time.

#### Schedule

< December 2022 >

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Schedule for  
2022-12-05

Medication Taken

Take asa 5mg  
Take tylenol 10mg

### Simplicity

The GUI was designed with simplicity in mind since the primary users are older and might not have a lot of experiences with apps. Therefore prioritizing using words to label things instead of using complicated symbols.

SETTINGS

Medication List

- Add Medication

select medication

ADD

EDIT

TRACK

#### Log

Entry for 2022-12-05

Please Select Medication to Log

asa

LOG

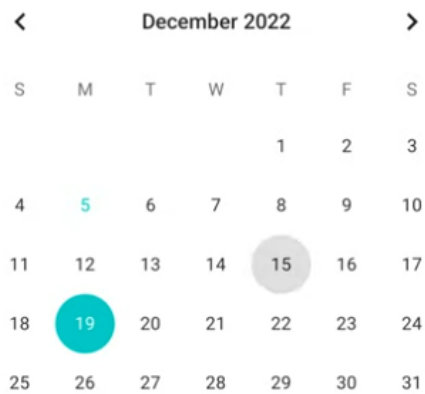
REMOVE

(remove from log)

Medications Logged

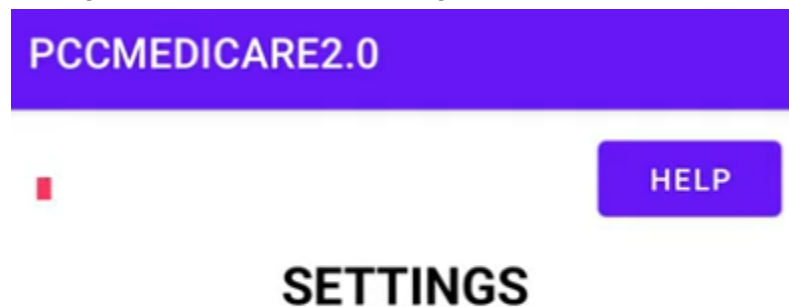
### Matching

Having the calendar page matching the standard way to view data over a period of time.\



### *Help*

Having a help button in the settings.



## User Feedback

- User 1 feedback:
  - More color - visibility, low priority
  - custom notification sounds - user flexibility & control, low priority
- User 2 feedback:
  - add a notes section to individual drugs - documentation, high priority
  - enter data by taking photos of labels? - ease of use, low priority
- User 3 feedback:
  - notification count by drug instead of by user - user flexibility & control, medium priority
  - add refill date notification - ease of use, medium priority

## Changes

The main changes implemented from the user feedback were adding custom notifications sounds and making them individual to each medication, adding notes to a medication and

adding a refill date. First a text box where the user can add additional information about their medication that isn't prompted by the app was added to the add/edit interface. Alongside this a spinner with a notification sound selection was added. The refill date was also added allowing the user to keep track of when a prescription must be refilled at a pharmacy.

## **Video Link**

<https://www.youtube.com/watch?v=ejxpTDlxCLs&t=2s>

<https://www.youtube.com/shorts/HtFjZVO12gk>

<https://www.youtube.com/shorts/LIKjWfJ4ckw>

All videos 1-4:

<https://www.youtube.com/channel/UCTRQCrdIqCfO8l2uCTJ0cEw>