

# TAKE YOUR MEDS (TYM)

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# Project overview



## Project duration:

July 10 - 15, 2023



## The product:

The purpose of the project is to help people take their prescribed medications. The app is the ideal method of delivery for the reminders as most people don't actually carry laptops (much less full sized PCs) with them. The responsive website was created to inspire people to acquire the app.





# Project overview



## The problem:

Many people around the world are not taking their medications as prescribed because they forget to take them. This app, and accompanying website, will help by being a reminder to take medications when required.



## The goal:

We hope to team with medical practitioners to have the app installed on as many phones as possible so people can make use of our simplified interface to remind them to take their medications as prescribed.

We want a healthier world!



# Project overview



## My role:

Unfortunately, I am a team of one.



## Responsibilities:

UX Design to Graphic Design. Coding to Researching and Reporting. If it was done on this project, I was responsible for it. (Something about a graded class.)

# Understanding the user

- User research
- Personas
- Problem statements
- Competitive audit
- Ideation



# User research: summary



Several methods of research were conducted during this project.

We began with a competitive analysis to see what we were up against and how we could improve on our competitors designs. We also did a series of usability studies on our wireframes and lo-fi and hi-fi prototypes, testing the designs at multiple stages during development until we reached our goal of a functional prototype that fulfilled the requirements of our test market.



# Persona 1: **Dina**

## Problem statement:

Dina is a coroner from Riverside, CA who needs the occasional reminder to take her medications because she is busy and sometimes time gets away from her.



**Dina**

**Age:** 55

**Education:** College Graduate

**Hometown:** Riverside, CA

**Family:** Married, 2 children

**Occupation:** Coroner

"If I don't take my meds regularly, I know I'll end up on my own slab and I don't want that. There needs to be an easier way to remember all this crap!"

### Goals

- Take all her medications every day regardless of the situation.
- Make sure that the reminder is unobtrusive as she does have sensitive conversations.

### Frustrations

- The reminders on the apps she has tried are all obnoxious.
- Finding a functional app that doesn't damage hearing.

Dina is a 55-year old coroner in Riverside, CA. Her job, and her children, keep her fairly busy all the time and she has forgotten her meds occasionally. Unfortunately, the apps she's tried all tend to have obnoxious reminders that have interrupted when she is notifying someone that a loved one has died. That sucks.

## Persona 2: Jeff

### Problem statement:

Jeff is a retired nuclear engineer who needs help to remember to take not only his medications, but a reminder for his wife, of similar age because they are both aging and their memories aren't what they used to be.



**Jeff**

**Age:** 76  
**Education:** Doctorate  
**Hometown:** Fillabuster, WY  
**Family:** Married, 3 children  
**Occupation:** Nuclear Engineer, Ret.

"I know I need to take my meds, but remembering to take all of them is becoming more difficult as I get older."

### Goals

- Find a mobile device that will remind him to take his many medications
- Set it up on a computer as his fingers are too large for phone keyboards

### Frustrations

- Apps like this exist but they require so much time to set up they become frustrating.
- They don't remind about refills.

Jeff is a 76-year old retired nuclear engineer who now has numerous health issues. He doesn't always remember to take all of his medications as they are spread out through the day. His wife tries to keep up but she has her own issues and likely needs a new system to help remind her, too.

# Competitive audit

The top 10 similar apps were tested to see what they had to offer that we might not have thought of and we were surprised that most (9 out of 10) were just glorified pill boxes that didn't do much in the way of reminding people to take their medications. NONE of them offered an opportunity for a spouse, loved-one or other caregiver to receive notifications.

|   | A                  | B                                       | C           | D                                                      | E                        | F                                                                                                                                                   | G                                                   | H                                                         | I                                                                           |
|---|--------------------|-----------------------------------------|-------------|--------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------|
| 1 | Competitive audit  | Competitive audit goal                  |             |                                                        |                          |                                                                                                                                                     |                                                     |                                                           | UX<br>(rated: needs work, okay, good, or outstanding)                       |
| 2 |                    | General information                     |             |                                                        |                          |                                                                                                                                                     |                                                     |                                                           | First impressions                                                           |
| 3 |                    |                                         |             |                                                        |                          |                                                                                                                                                     |                                                     |                                                           |                                                                             |
| 4 |                    | Competitor type<br>(direct or indirect) | Location(s) | Product offering                                       | Price<br>(\$ - \$100)    | Website<br>(URL)                                                                                                                                    | Target audience                                     | Unique value proposition                                  | Desktop and App website experience                                          |
| 5 | Dose Cast          | Direct                                  | Internet    | Paid syncs across multiple devices                     | Free Pro from \$2.00/mth | <a href="http://www.montunoftware.com/about/">http://www.montunoftware.com/about/</a>                                                               | people who need to take meds                        | Refill and pill counts are only available in paid version | RATING<br>+ Successes<br>- Drawbacks                                        |
| 6 | Medisafe           | Direct                                  | Internet    | Reminders for taking and refilling coupons             | Free/1kds                | <a href="https://www.medisafeapp.com/">https://www.medisafeapp.com/</a>                                                                             | people who need to take meds                        | Does everything we've planned plus picture of the pills   | RATING<br>+ Top Rated Overall<br>- Sends data to healthcare companies anon. |
| 7 | Lady Pill Reminder | Direct (Android)                        | Internet    | Very limited                                           | Free                     | <a href="https://play.google.com/store/apps/details?id=com.ladypillreminder">https://play.google.com/store/apps/details?id=com.ladypillreminder</a> | people who need to take meds - mainly birth control | It's pink and looks like a pack of Birth Control pills    | RATING<br>+ Great for remembering THE pill<br>- Difficult to add other meds |
| 8 | MangoHealth        | Direct                                  | Internet    | Offers chances to win gift cards if you take your meds | Free                     | <a href="https://www.mangohealth.com/index.html">https://www.mangohealth.com/index.html</a>                                                         | people who need to take meds                        | Gift Cards - really?                                      | RATING<br>+ Gift cards<br>- Must enter meds manually instead of scanning    |



# Ideation

Several ideation processes were used, including “Crazy Eights” and “How Should We.”

From this we deduced the most likely formats to use and how we wanted the user flow to operate.



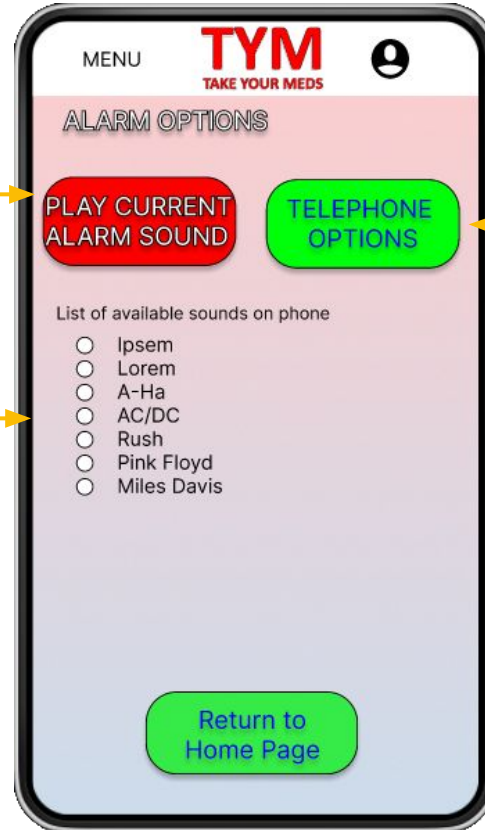


# Digital wireframes

One of the most difficult pages to design was the alarm options screen. The website allows for an alarm to be set but the alarm noise must be changed on the phone through the app as compatibility across devices has not become an option, yet. We're working on it.

This option plays the current alarm to remind the user to take their meds

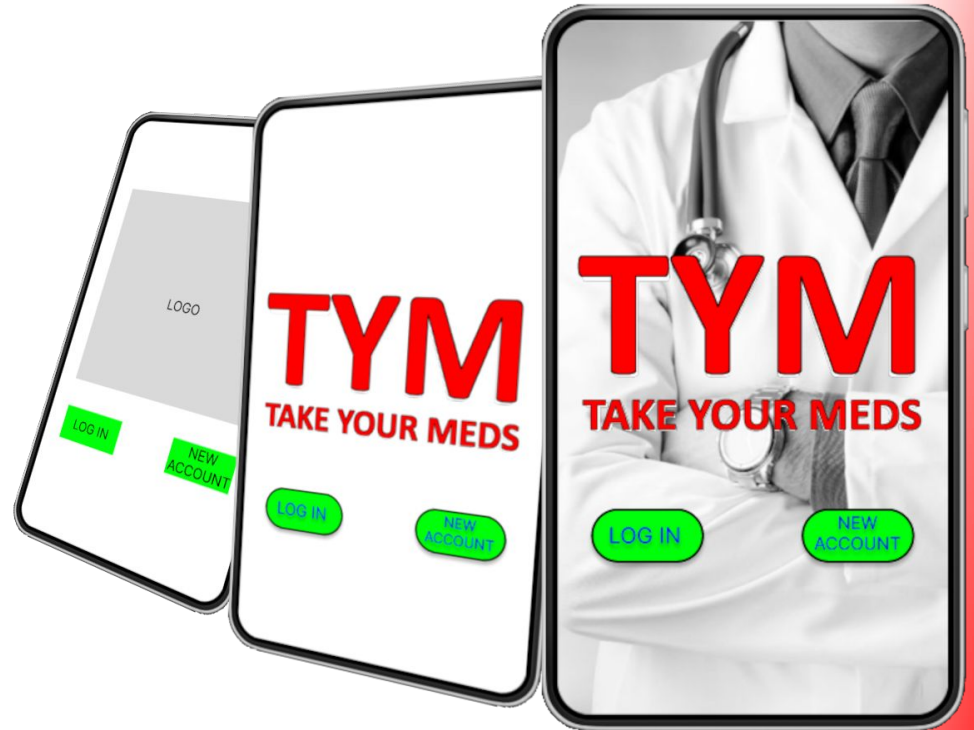
The optional sounds (which vary from phone to phone) usually has a considerable list that simply comes with the phone. This can not be accessed through a PC or Mac, thus the necessity of the app.



Telephone Options allows users to receive an actual phone call, either to their cell device or to another device or even a land-line.

# Prototyping

As you can see here, the progression from wireframe, through varying stages of prototyping led us to a more finalized look for our app. For those concerned about a “white male” being the doctor in the image, it does rotate through a variety of doctor images of differing color and gender.





# Usability study: parameters



## Study type:

Unmoderated usability study



## Location:

United States, remote



## Participants:

5 participants



## Length:

15-30 minutes



# Usability study: findings

There were some findings from our visually impaired test subject.

1

## Finding

Changing the text on the green buttons would be helpful. The white text is not as easy to read as it might seem.

2

## Finding

Vocal option: "Take your medication at X o'clock"  
Many people know *what to take at what time*, but need the reminder of what time it is.

3

## Finding

Auto-suggest medication names when entering it manually.

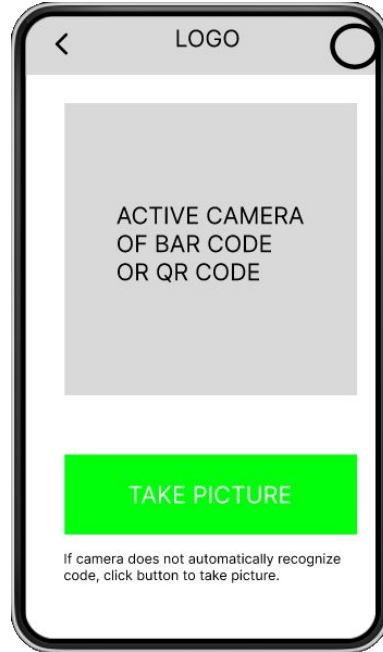
## Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

# Mockups

As requested by the users, the text on the button was adjusted to a more readable blue, as suggested by a color design website. The menu was also refined with the word MENU instead of a “hamburger” as some users didn’t know what that was.

Before usability study



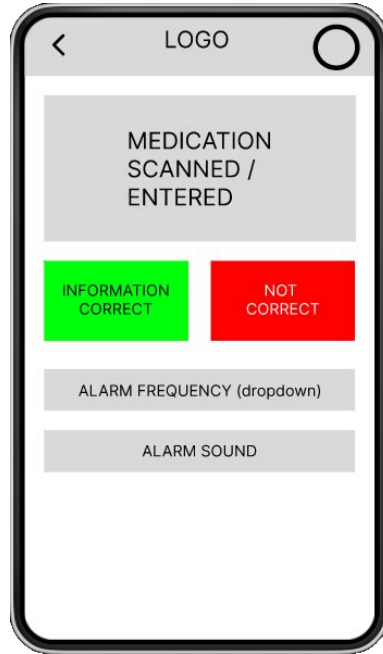
After usability study



# Mockups

There was an attempt at simple black text for the button but further testing showed that the blue was, indeed, the way to go. It was also explained that the scanning of the medication with the cell's camera would have to be added later by engineers, although we did show that it was going to be an option.

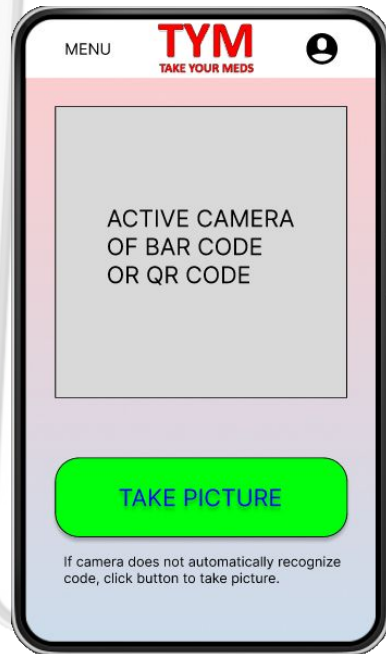
Before usability study



After usability study

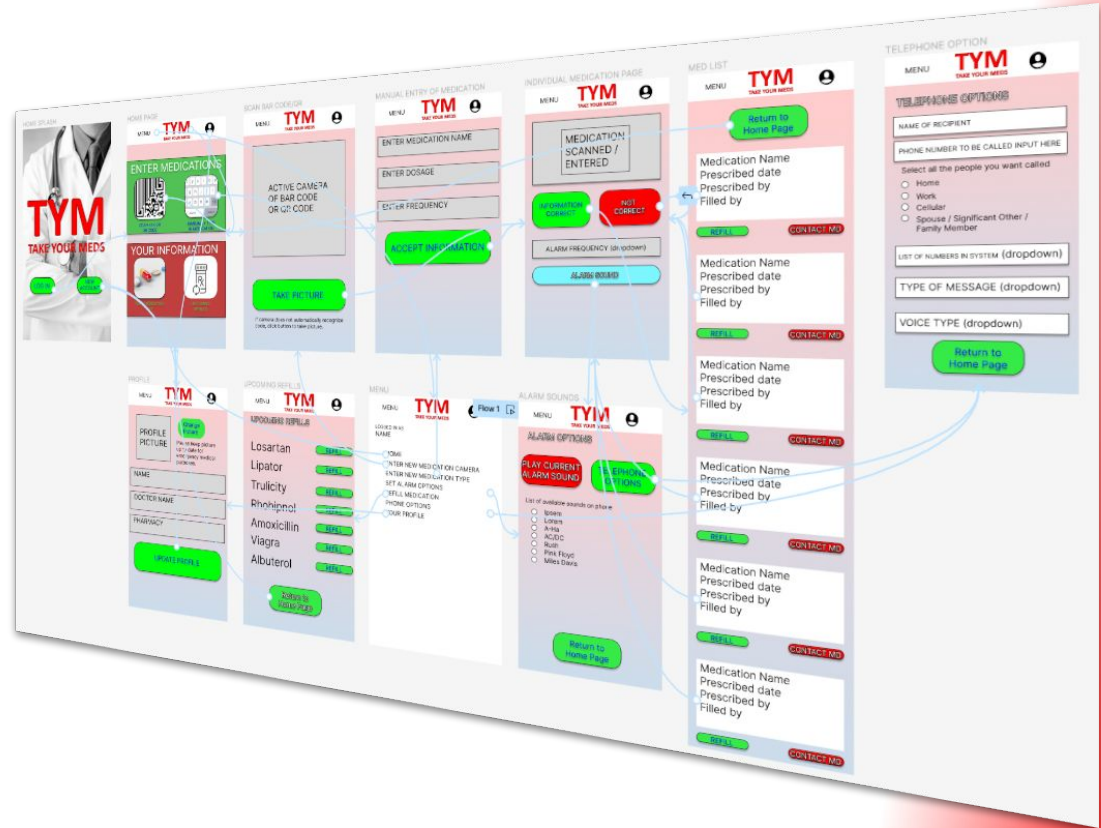


# Mockups



# High-fidelity prototype

Our feedback, after the initial study, did not require much in the way of visual changes. Several “under the hood” options were added, such as the variations to the phone reminders and a future method of connecting web/PC options to the cell phone.





# Accessibility considerations

1

We tested the design with the visually impaired who gave a number of good suggestions.

2

We tested with those who, by their own admission, are not “tech savvy.” The results were considered positive as everyone was able to complete the tasks set.

3

A reader version of the app and website is in the works and should be ready in time for product launch.

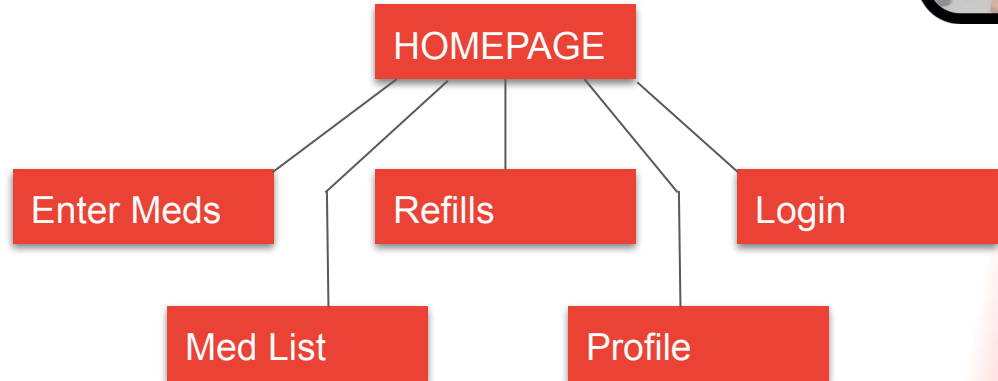
# Responsive Design

- Information architecture
- Responsive design



# Sitemap

It was decided, due to the nature of the reminder process and the incompatibility of most PCs to make changes on phones, and for security reasons, it was decided to keep the website fairly simple and little more than an advertisement for the app.



# Responsive designs

Variable screen size (shown) are rapidly becoming easier to transition from one to the other due to additions to CSS code allowing for automatic adaptation without having to specifically design different sizes for every different size. (see [www.steele42.com](http://www.steele42.com))



# Going forward

- Takeaways
- Next steps

# Takeaways



## Impact:

“Better than half the websites I have to use and [this is] still a mostly unclickable prototype.”

- Test Subject #2 during Wireframe testing

“Well that was extremely simple and I am not that computer literate”

- Test Subject #4 during prototype testing

Sounds like we're headed in the right direction.



## What I learned:

Having been in this field for over 20 years, you'd think there's be nothing left. However, among other things, I learned (was reminded?) that not all colors go well together and that people with visual impairments need to be able to read the text.



# Next steps

1

Ensure functionality of camera works for both website (if needed) and app for inputting medications with bar or QR code.

2

Apply autocomplete function for manual inputting of medications.  
Database still in acquisition phase.  
(There are a LOT of meds out there.)

3

Create study to find out what alarm options are wanted by users.

# Let's connect!



If there are any questions, please feel free to contact me:

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Or through my website:  
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