

ATHLETICARE

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INTRODUCTION

We are building a system which will connect the athletes to the doctors.

Here we want to implement Google O-Auth for data security. The athletes will be able enter the required injury which they are suffering currently, post which the system will show the list of expert doctors in that domain along with their availability and ratings. The athletes can schedule their appointment with the required doctor after looking at their rating and availability date. The athletes will be able to rate the doctor after their session depending on various parameters.

The current state-of-art is the *UHS* online appointment scheduling system. Our initial impression of it is that it is not user-friendly. One cannot see doctor's information, and has to go through a badly-designed survey to see the appointment slots. We want to build a website that is more user-friendly.

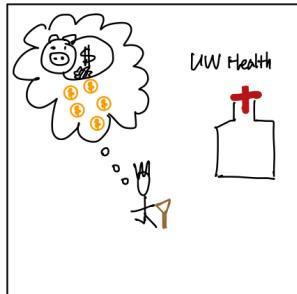
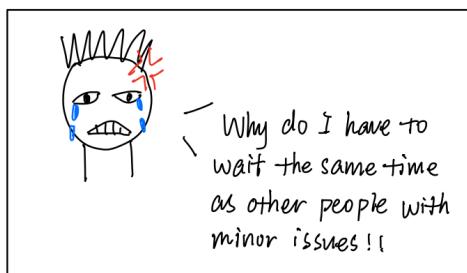
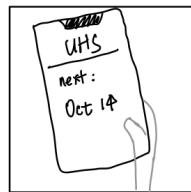
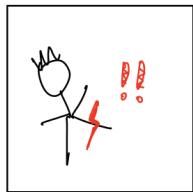
Currently we are starting off this project by building a web-based platform for them to connect but in future we will definitely build a cross platform app which will render both on Android and IoS devices.

UNDERSTANDING

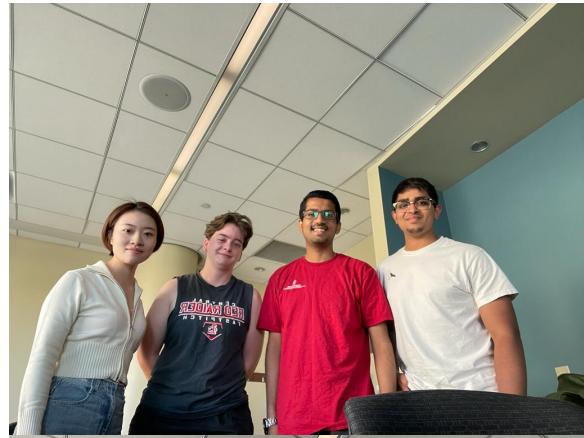
We did CI with 3 athletes in UW Madison.

According to our initial understanding, *doctor and appointments choices* are crucial in our design space. That is why we focused on doctor descriptions and ratings.

The problems we identified from Cis are different from our initial understanding. *Immediate availability* is the most crucial for athletes. If one doctor is immediately available, they most likely would go with it. In contrast, rating is not that important. However, UHS don't have an emergent service, and don't even prioritize different patients. They have to wait the same amount of time as others with minor problems. This finding is reflected in the following story board:



Photos of interviews: (the other one is on zoom)



UNDERSTANDING

Affinity Diagrams:

Helena

Doctor preferences

Most important to you is that your care is delivered by a doctor who has the right qualifications and the right experience for the condition you have. You want the doctor to be available and available or would prefer to see them based on availability.

Facts about appointments

Most urgent cases take a long time to book and you wait for an appointment and how long would it be before you can see the doctor?

Facts about injuries

Most injuries occur a few times per month.

Facts about patients

You know your healthcare urgent need such as a sprain or fracture, willing to give away information to get help?

Listed services

Most things are ordered online, on many sports clubs and many places.

Doctor preferences

Most important to you is that your care is delivered by a doctor who has the right qualifications and the right experience for the condition you have. You want the doctor to be available and available or would prefer to see them based on availability.

Facts about appointments

Depends on the injury, normally on speed and urgency. If it's a fracture, I'd expect to see the doctor within a few days. If it's a sprain, I'd expect to see the doctor within a week. If it's a muscle strain, I'd expect to see the doctor within a month.

Facts about injuries

The common ones are fractures, high contact sports will have more injury almost every game.

Festival experiences

After you leave the injury, the trainer follows up with you and takes care and will be available.

Listed services

No emergency services, go through GP if you feel unwell. If you feel unwell, you can go to the GP or the public health center. If you feel unwell, you can go to the hospital or the emergency room. It's a good idea to go to the hospital or the emergency room if you feel unwell, because they have more resources and can treat you better.

Alexis

Doctor preferences

Same doctor. I have no idea as I just went with who my practice had.

Facts about appointments

I have less than 2 weeks to go to see a trainer. If it's a medical issue, I would go to my doctor first.

Facts about injuries

Everyday. How frequently do players get injured?

Festival experiences

I guess it's possible the experiences we're in your life are different from what you've experienced, or other people.

Good services

Less than 2 hours. How long is the waiting period to book a session?

Rosina

Doctor preferences

Most important to you is that your care is delivered by a doctor who has the right qualifications and the right experience for the condition you have. You want the doctor to be available and available or would prefer to see them based on availability.

Facts about appointments

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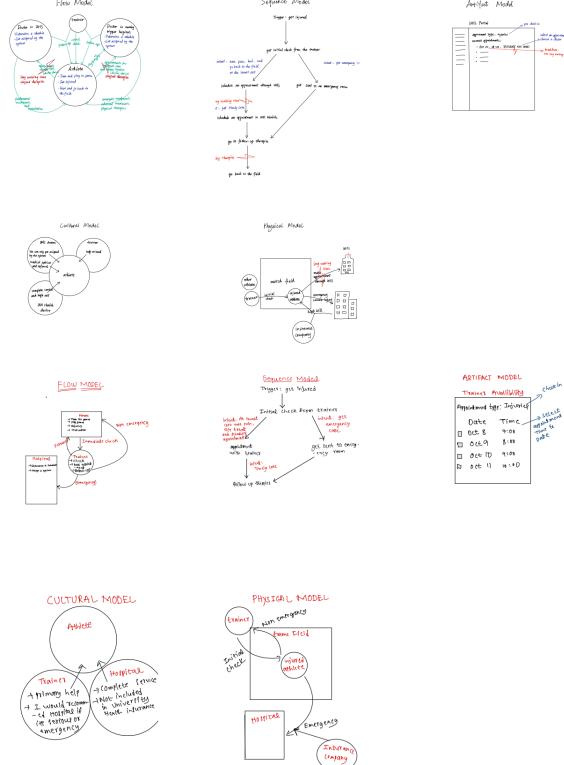
Festival experiences

After you leave the injury, the trainer follows up with you and takes care and will be available.

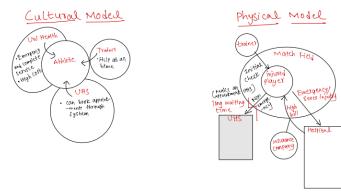
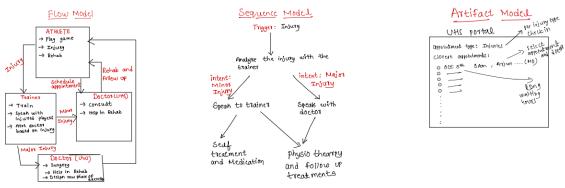
Listed services

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Work Models for 3 Participants:



UNDERSTANDING

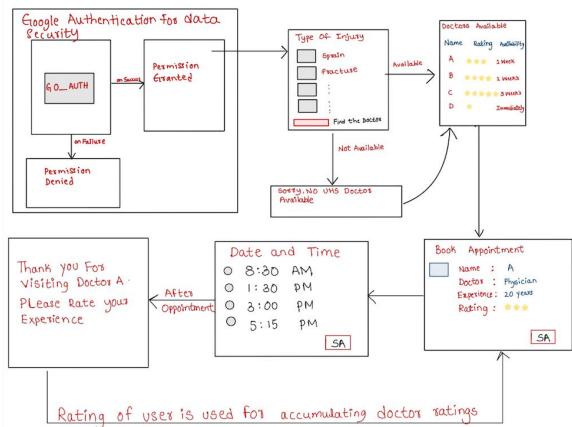


IDEATION

Our main design idea is to build an appointment scheduling platform that is more straightforward and user-friendly than UHS.

The main design feature is **a prioritizing feature**. Patients in urgent needs can indicate their needs and see most recent appointments.

Before CIs, we focused on doctors' ratings and descriptions, so that athletes can choose doctors they want.



After CIs, we realized that prioritizing is the most important. Originally, we want to ask every patient to fill out **a survey** about their conditions:

- The pain they are experiencing
- The type of injury
- The date of their next game

We want to prioritize accordingly.

However, this design might have a *privacy problem*. We then decide to give them a **checkbox** to indicate whether or not they are in urgent needs.

I am in urgent need!!

In order to prevent possible abuses of this feature, we are going to remind the

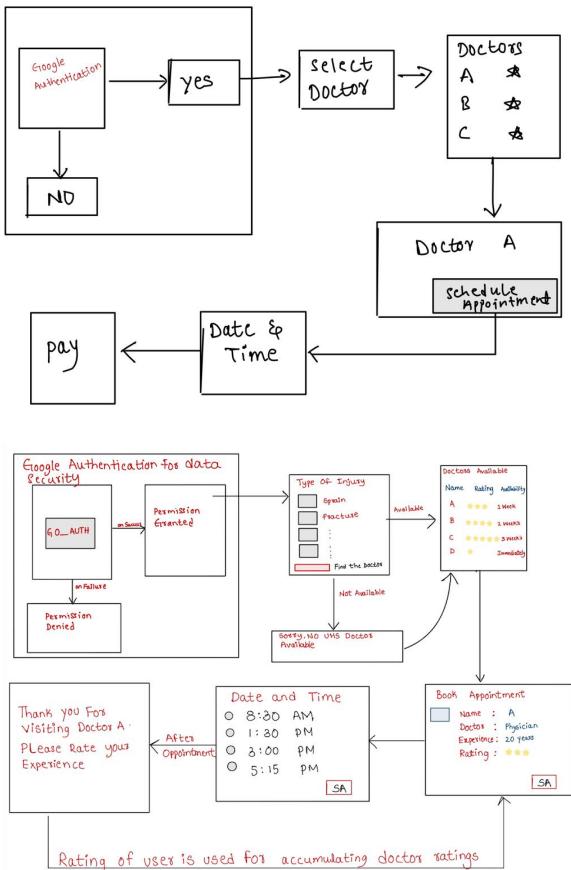
limitedness of medical resources and encourage them to lease them to the people in need if they can wait a bit.

I am in urgent need!!

** Do not check the box unless you are in need for immediate medical assistance. Leave the resources to the ones in real need.

PROTOTYPING

Lo-fi prototypes:

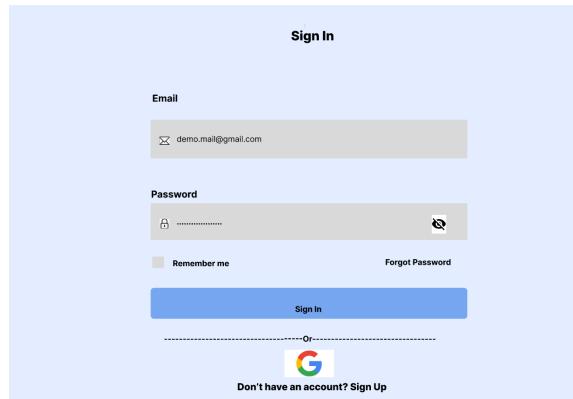


In our lo-fi prototypes before CIs, we implemented Google O-Auth for data security. The athletes will be able enter the required injury which they are suffering currently, post which the system will show the list of expert doctors in that domain along with their availability and ratings. The athletes can schedule their appointment with the required doctor after looking at their rating and availability date. The athletes will be able to rate the doctor after their session depending on various parameters.

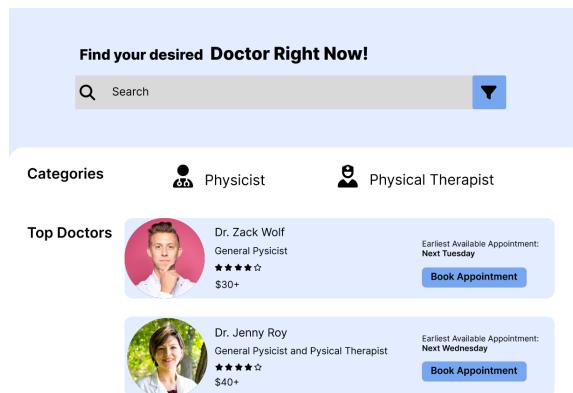
Hi-fi prototype:

<https://www.figma.com/proto/T7eD6L0OoD0HJSrB4zDOC6E/Athleticare---Medical-Appointment-Booking-System-for->

<Athletes?node-id=2%3A20&scaling=min-zoom&page-id=0%3A1&starting-point-node-id=2%3A20&show-proto-sidebar=1>



Google O-Auth for data security



Doctors

PROTOTYPING

▼Filter

Categories

- Physicist
- Physical Therapist

Urgency

- I am in urgent need! 

** Do not check the box unless you are in need for immediate medical assistance. Leave the resources to the ones in real need.

Done

Prioritizing feature: indicate whether they are in urgent need

Payment Method

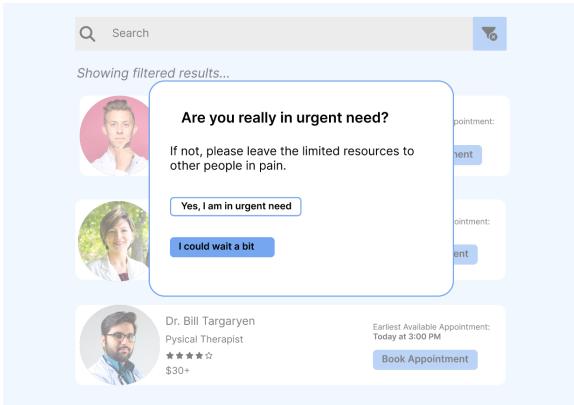
PayPal 

Debit/Credit Card 

Card Number
Expiry MM/YY **CVV 123**

Pay

Paypal or credit card to pay



Showing filtered results...

Are you really in urgent need?
If not, please leave the limited resources to other people in pain.

Yes, I am in urgent need

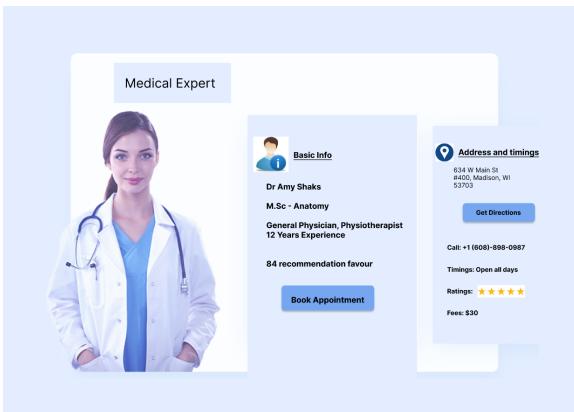
I could wait a bit

Dr. Bill Targaryen
Physical Therapist
★★★★★
\$30+

Earliest Available Appointment:
Today at 3:00 PM

Book Appointment

Prevent abuses of the prioritizing feature



Medical Expert

Basic Info
Dr Amy Shaks
M.Sc - Anatomy
General Physician, Physiotherapist
12 Years Experience

84 recommendation favour

Book Appointment

Address and timings
634 N Main St
4400 Madison, WI
53703
Get Directions

Call: +1 (608)-888-0987
Timings: Open all days
Ratings: ★★★★★
Fee: \$30

Make appointment and get directions

EVALUATION

Methods: Within-Subjects Design; Talk-Aloud Protocol; Task-Based Testing

Each of our participants are asked to work through the same task path. We conduct 3 individual 15-min usability tests.

- We first use 3–5 min to explain our design and what we are interested to find out in the usability testing.
- We then give him or her a scenario and the tasks.
- Participants are asked to talk aloud during the whole process.

Participants conduct the testing with their own computer in their normal life/work settings.

2–3 Tasks For 3 Participants:

You just broke your knee are in an emergent need.

1. Choose a doctor you want
2. Book an appointment ASAP

Results and Findings:

Audio and video recordings of usability testing: [Stage 3](#).

All three of our participants fail to find the nearest appointment.

The majority of breakpoints, errors, and confusions our participants encountered are due to the *limitation of figma*. They are used to dynamic and interactive website. Figma's lack in this respect is a constant confusion.

However, we did observe some data which would lead to improvements in our prototype:

- Breakpoints when the participant
 - o want to filter doctor types
 - o didn't see the zip code at payment
 - o didn't see a sorting feature

- o can't search and didn't see a tag for specific injuries
- o don't see WisCard payment type
- o don't see confirmation email sent
- Confusion about
 - o the icon beside the urgent need check box
 - o typos in Physicist & Physical Therapist
- Failure
 - o to find the nearest appointment before he or she didn't see the existence of the filter.
 - o to find the nearest appointment before he or she didn't see the existence of the checkbox to indicate urgent need.

Though some of these data points to an improvement in design, such improvement cannot be done in figma. For example, sorting feature and search and input features. Because figma cannot be dynamic, things like adding respective descriptions of doctors are also impractical. We are going to make the feasible improvements in figma.

FINAL PROTOTYPE

Final Prototype:

<https://www.figma.com/proto/uBAWkvx5VM3qWMhzHkahIT/Athleticare-Final-Solution?node-id=0%3A1&scaling=min-zoom&starting-point-node-id=1%3A37&showproto-sidebar=1>

Changes and reasons:

Add more prompts to let users know that we provide accommodations for urgent needs.

Find your desired Doctor Right Now!

Search

In urgent need? ⓘ

▼ Filter

Categories we are still working on it

Injury Types

Are you in urgent need?

You can check the urgency box to see immediate appointments.

I am in urgent need

Got ya!

Done

Add doctor specialty to help with choosing

Basic Info

Dr Amy Shaks

M.Sc - Anatomy

General Physician, Physiotherapist
12 Years Experience

Specialty: Sprains and strains,
Swollen muscles

84 recommendation favour

Book Appointment

Disable features that cannot be well supported by figma, so that they will not

confuse users when they test the prototype.
Ex 1. categories deleted

Find your desired Doctor Right Now!

Search

In urgent need? ⓘ

Top Doctors

Dr. Zack Wolf
General Physician
★★★★☆
\$30+

Earliest Available Appointment:
Next Tuesday

Book Appointment

Dr. Jenny Roy
General Physician and Physical Therapist
★★★★☆
\$40+

Earliest Available Appointment:
Next Wednesday

Book Appointment

Categories we are still working on it

Injury Types we are still working on it

Ex 2. paypal as the payment method

PayPal we are still working on it

PayPal

Add a prompt that confirmation email is sent, so that the patient can have a record

Payment Method

Payment Successful

Booking Confirmation will be sent to the email used for signing up. Hope you have a great time and a happy recovery.

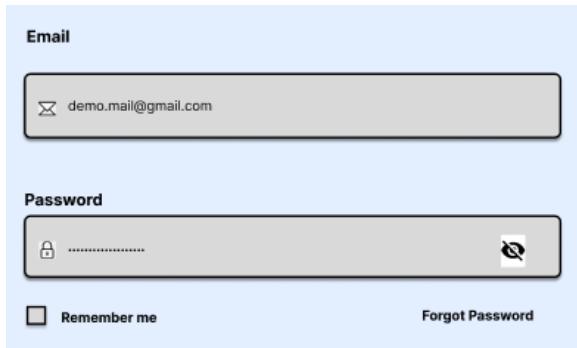
Add outlines to refine the looking. Ex.

FINAL PROTOTYPE

Email

Password

Remember me [Forgot Password](#)



Added backward buttons in main breakpoints to simplify changes. Ex. On the payment page so that if the user wants to change the appointment timing, he can go back to modify the date and time frame.

←

Payment Method

PayPal we are still working on it 

Debit/Credit Card 

Card Number

Expiry MM/YY CVV 123



