

PROJECT 1: WEB-BASED SERVICES

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 to 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 run on both Android and iOS devices.

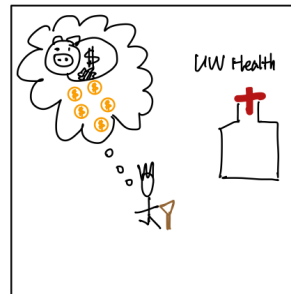
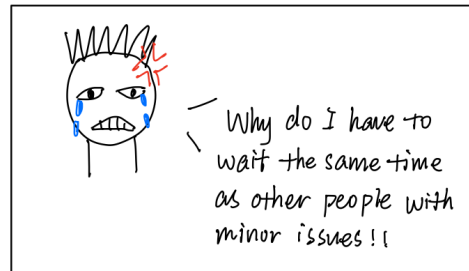
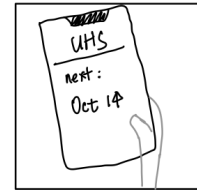
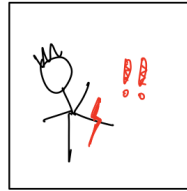
PROJECT 1: WEB-BASED SERVICES

UNDERSTANDING

We did CI with 3 athletes in UW Madison.

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

The problems we identified from CI's 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. However, UHS doesn't have an emergent service, and doesn'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 storyboard:

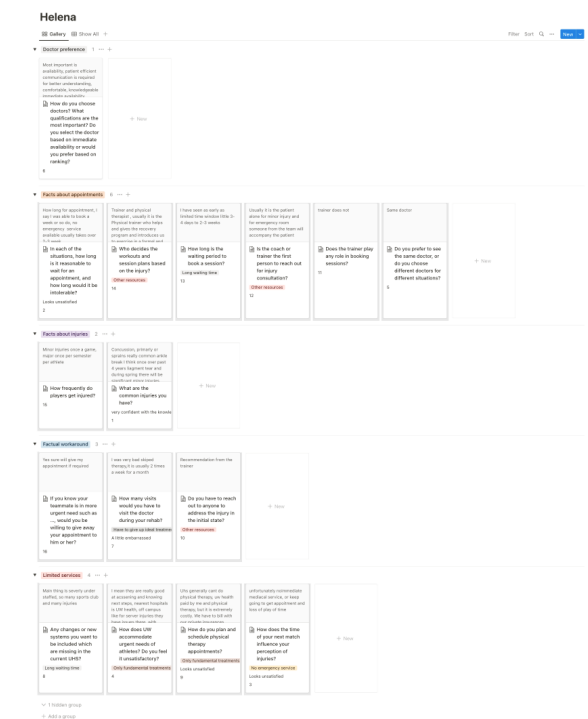




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1.



PROJECT 1: WEB-BASED SERVICES UNDERSTANDING

2.

Roshini

Filter Sort View

Doctor preferences 3 — 4

How have you decided among the three, multiple appointments, or none? (Other resources: 10)

How do you choose doctor? What qualifications are the most important? Do you select the doctor based on immediate availability or would you prefer based on ratings? (Other resources: 10)

Approximate about how long the wait time is?

Facts about appointments 3 — 4

How long is the wait time? (Other resources: 10)

How do you plan and schedule physical therapy appointments? (Other resources: 10)

How long is the waiting period to book a session? (Other resources: 10)

Facts about injuries 3 — 4

How long is the waiting period to book a session? (Other resources: 10)

How do you plan and schedule physical therapy appointments? (Other resources: 10)

How long is the waiting period to book a session? (Other resources: 10)

Facts about exercises 3 — 4

How long is the waiting period to book a session? (Other resources: 10)

How do you plan and schedule physical therapy appointments? (Other resources: 10)

How long is the waiting period to book a session? (Other resources: 10)

Overall services 3 — 4

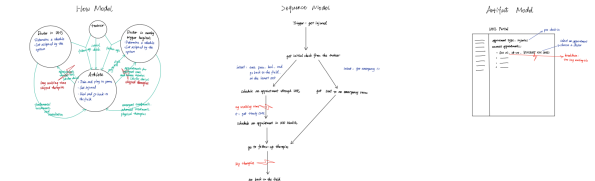
How long is the waiting period to book a session? (Other resources: 10)

How do you plan and schedule physical therapy appointments? (Other resources: 10)

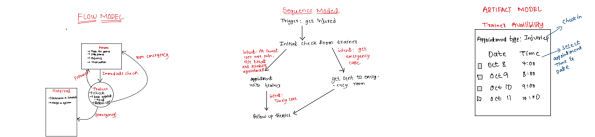
How long is the waiting period to book a session? (Other resources: 10)

Work Models for 3 Participants:

1.



2.



3.

Alexis

Filter Sort View

Doctor preferences 3 — 4

How have you decided among the three, multiple appointments, or none? (Other resources: 10)

How do you choose doctor? What qualifications are the most important? Do you select the doctor based on immediate availability or would you prefer based on ratings? (Other resources: 10)

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Facts about appointments 3 — 4

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How do you plan and schedule physical therapy appointments? (Other resources: 10)

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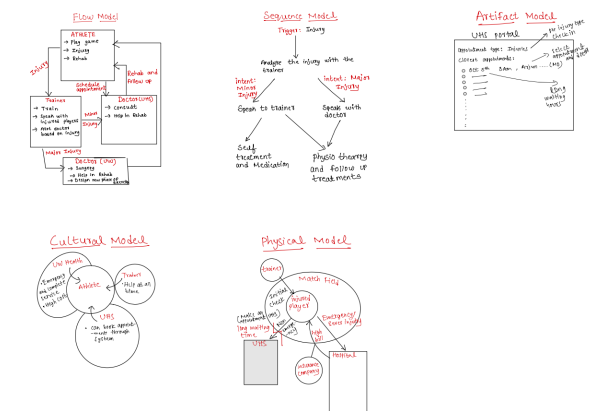
Overall services 3 — 4

How long is the waiting period to book a session? (Other resources: 10)

How do you plan and schedule physical therapy appointments? (Other resources: 10)

How long is the waiting period to book a session? (Other resources: 10)

3.



PROJECT I: WEB-BASED SERVICES

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. Along with this as this medical data, data security plays a major role, with the current trend in increase in white-hat and black-hat hackers we have implemented Google O-Auth here for the website.

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 experience
- The type of injury
- The date of their next game

We want to prioritize accordingly.

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

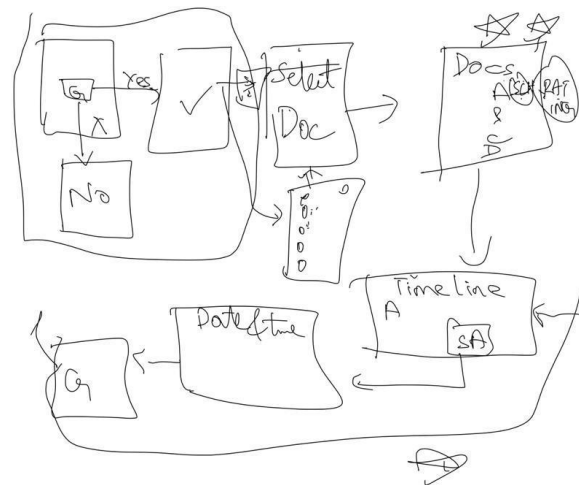
☒ I am in urgent need!! 

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.

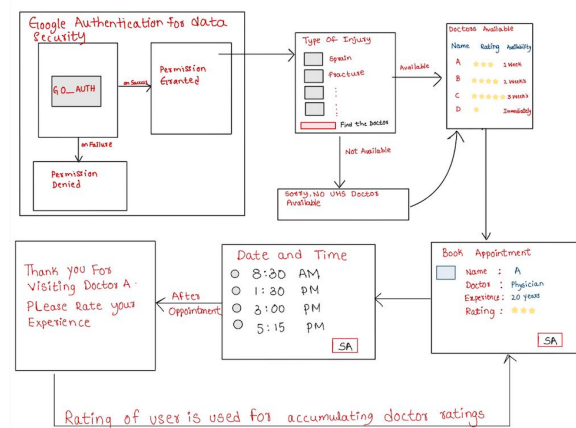
☒ I am in urgent need!! 

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

Lo-fi prototypes:



(A bit messy, just see the one below.)



PROJECT I: WEB-BASED SERVICES

UNDERSTANDING

Here we have implemented Google O-Auth for data security. The athletes will be able to 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/T7eD6LOOdOHJSrB4zDOC6E/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-prototype-sidebar=1>

PROJECT 1: WEB-BASED SERVICES

IDEATION

Sign In

Email
demo.mail@gmail.com

Password
[password field]

☐ Remember me [Forgot Password](#)

Sign In

Don't have an account? [Sign Up](#)

Google O-Auth for data security

Find your desired Doctor Right Now!

Search

Categories: ☒ Physicist ☐ Physical Therapist

Top Doctors

Dr. Zack Wolf
General Pysicist
★★★★☆
\$30+
Earliest Available Appointment: Next Tuesday
[Book Appointment](#)

Dr. Jenny Roy
General Pysicist and Physical Therapist
★★★★☆
\$40+
Earliest Available Appointment: Next Wednesday
[Book Appointment](#)

Prioritizing feature: indicate whether they are in urgent need

Showing filtered results...

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

Dr. Bill Targaryen
Physical Therapist
★★★★☆
\$30+
Earliest Available Appointment: Today at 3:00 PM
[Book Appointment](#)

Prevent abuses of the prioritizing feature

Medical Expert

Dr. Amy Shaks
M.Sc - Anatomy
General Physician, Physiotherapist
12 Years Experience
84 recommendation favour
[Book Appointment](#)

Address and timings
634 W Main St
4450, Madison, WI
53703
[Get Directions](#)
Call: +1 (608) 999-0987
Timings: Open all days
Ratings: ★★★★★
Fees: \$30

Make appointment and get directions

Payment Method

☐ PayPal

☒ Debit/Credit Card

Card Number

Expiry MM/YY **CVV 123**

[Pay](#)

Paypal or credit card to pay

//AKARSH ADD the other screenshots here

Ensure the headers are properly matching with content

PROJECT 1: WEB-BASED SERVICES 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 and 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 websites. 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
 - want to filter doctor types
 - didn't see the zip code at payment
 - didn't see a sorting feature
 - can't search and didn't see a tag for specific injuries
- Confusion about
 - the icon beside the urgent need check box
 - typos in Physicist & Physical Therapist
- Failure
 - to find the nearest appointment before he or she didn't see the existence of the filter.
 - 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. We are going to make feasible improvements in figma.

PROJECT I: WEB-BASED SERVICES

FINAL SOLUTION

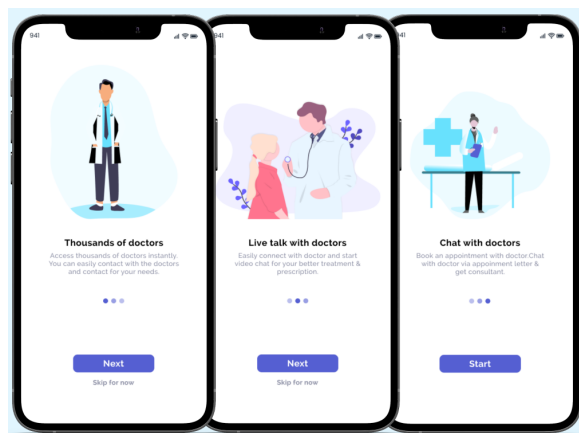
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After conducting the Ethnography and user testing we found out that our users would rather want this as an mobile application rather than the web based interface.

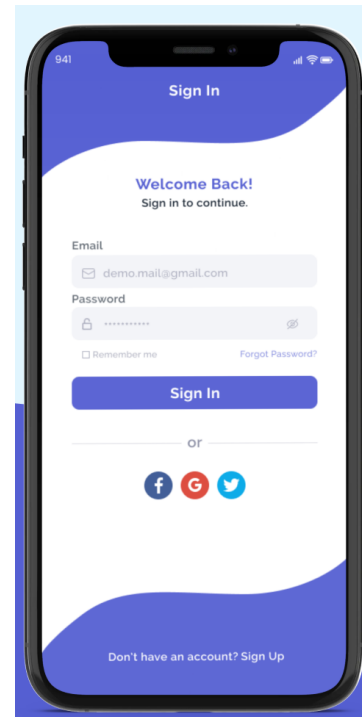
Hence after finishing the figma model solution we have implemented a cross platform mobile application, this was required as we need to cater both sets of target audience (Android and iOS)

Usually people would love to use App instead of the website which have same features, even these points were given to us by our users

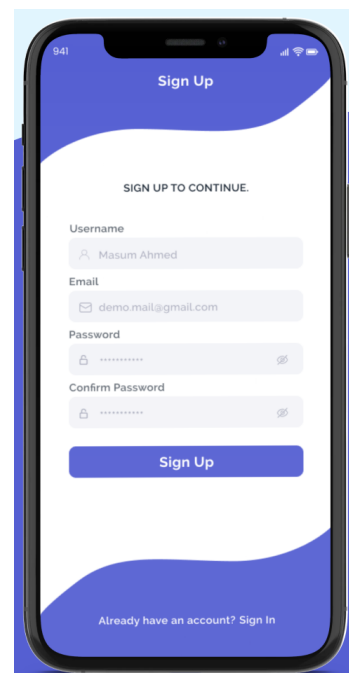
1.The Mobile Interface



2.The Google O-Auth



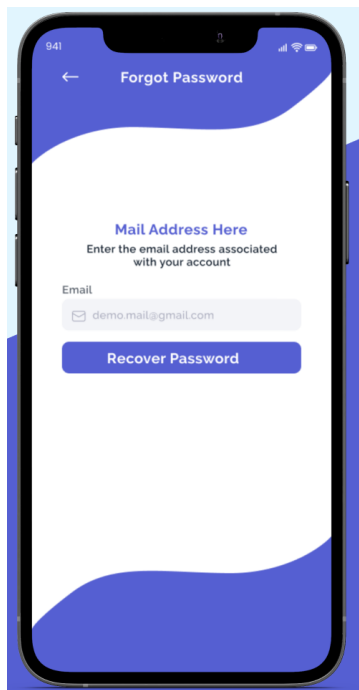
3.Sign Up



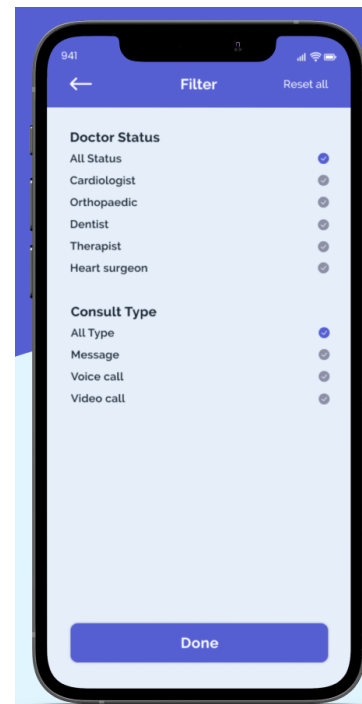
PROJECT 1: WEB-BASED SERVICES

FINAL PROTOTYPE

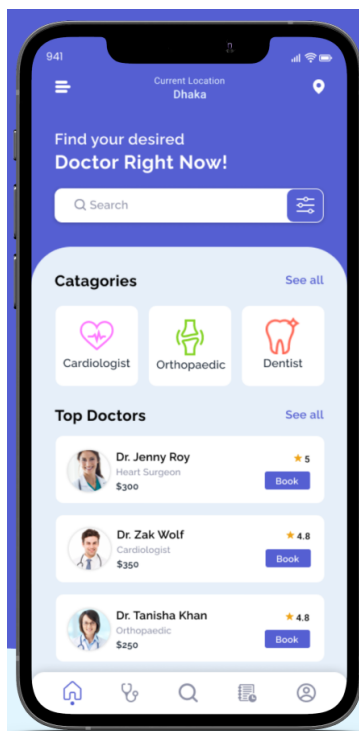
4.Recovery



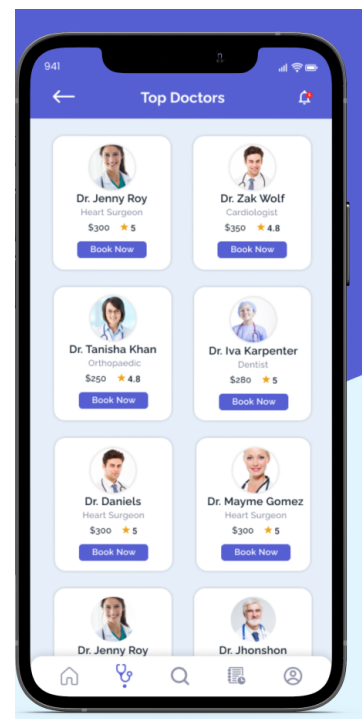
6. Filter



5.Home-View



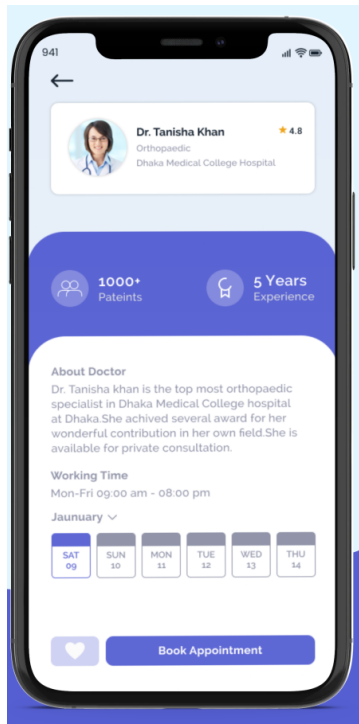
7.View Doctors



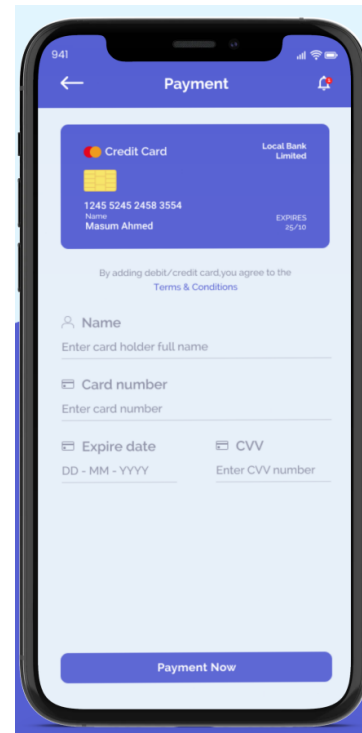
PROJECT I: WEB-BASED SERVICES

FINAL SOLUTION

8. Select Doctor



10. Payment Page



9. Appointment Scheduler

