

BioBridge - Case Study

Capstone Project for Springboard's UX Design Career Track

By: Lisa Payne

Date of Project: May 2019- November 2019

Last Updated: 12/17/19

CONTENTS

Overview

- The Problem 1
- The Solution 1
- My Role..... 1

Research

- Secondary Research..... 2
- Primary Research 2

Analysis

- Affinity Map 3
- Empathy map 3
- Personas 4
- How Might We 5

Ideation

- Journey Map 6
- User Stories..... 6

Information Architecture

- User Flows..... 7
- Sitemap (or App Map)..... 8

Design

- Sketching..... 9
- Wireframes/Wireflows..... 10
- Styleguide..... 11

Hi-Fidelity Prototype 12

Usability Testing

- Feedback..... 13
- Iterations 13

Conclusion

- Next Steps..... 14
- Lessons Learned..... 14

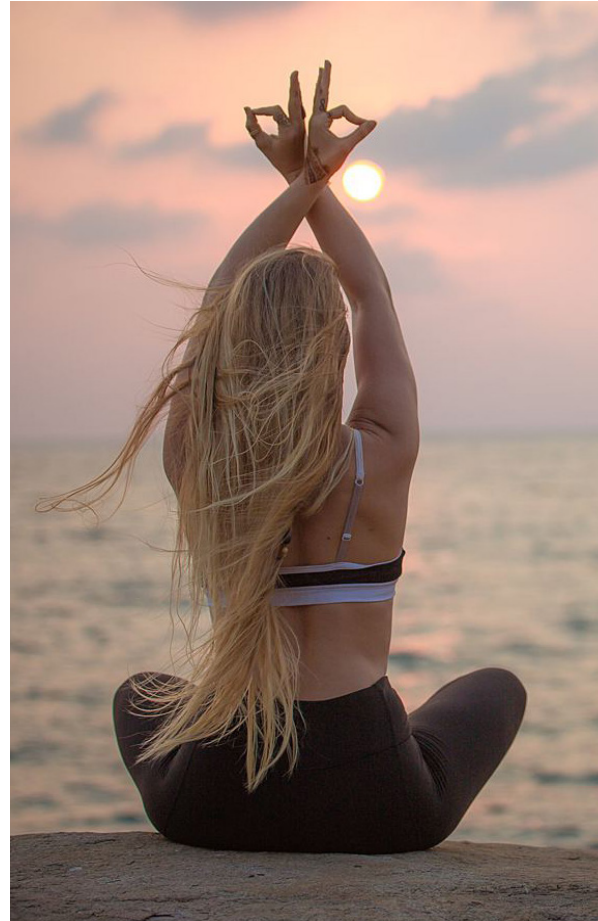
OVERVIEW

OVERVIEW

The Problem: Most people do not use bloodwork to measure their health because of cost, inconvenience, and lack of information and understanding. BioBridge is an app that uses technology to match users with recommended tests based on their health profile, educate users on the tests they are selecting from, book a test in a convenient location, and provide additional information with the users test results. The big design challenge was to provide these solutions without adding any others in the process.

The Solution: The Springboard course curriculum provided the education and processes needed to conduct an entire UX-based research, design, testing and implementation for the app.

My Role: With guidance from my mentor, I conducted all research, testing, and design for the product.



RESEARCH

RESEARCH

Secondary Research

I began with desk research to find what kinds of blood tests people should get done regularly and why, and what a lot of the shorthand and units are for blood-work results. I discovered that not all “normal” ranges are the same for all lab-work results.

I also focused on existing technology. I looked to see what else is out there to give people a better picture of their health like the mailable testing kits offered by Everyllwell5. I focused mainly on two companies that utilized lab testing: InsideTracker6 and Blueprint Fit.

I also looked at other products that run the action of asking someone to provide a collection of some sort to be sent of and evaluated and then returned in a way that users can easily interpret. The companies include Ancestry DNA, petnotics, and smart-fertilizer.

I looked at the flow of the processes and found examples of how information was evaluated, interpreted, and presented and displayed back to the client.

Primary Research

I then sent out a screener survey to find participants to interview. I focused on finding people who meet the characteristics of someone likely to seek optimal health: doctors, athletes, people in the health field. I made sure to include health enthusiasts and smartphone users. Some of the key insights I gained through this research came from interviews.

I ended up conducting 6 interviews which gave me an abundance of insights which I wrote on sticky notes and grouped into an affinity map with 5 key topics that formed organically based on the conversations I had: Nutrition, Lab-work, Optimal Health, Taking Action, and Technology.

ANALYSIS

ANALYSIS

Affinity Map:

Using notes and recordings from my interviews, I pulled numerous insights and grouped them into organic categories to create an affinity map.

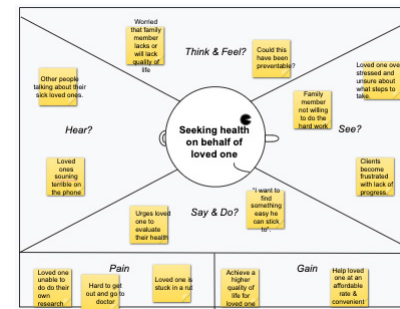
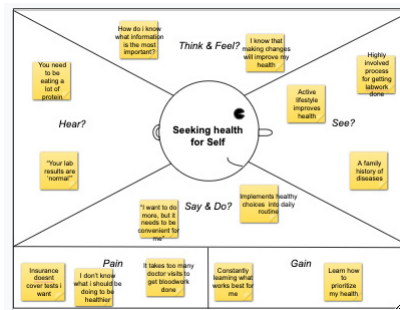


[Click to view larger](#)

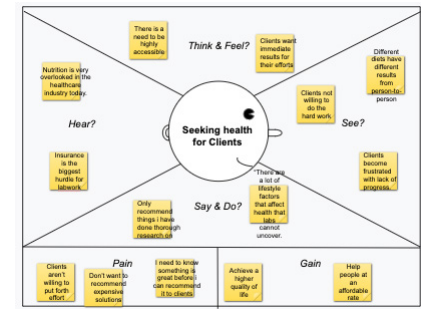
Empathy Maps:

I created some Empathy maps to help me understand potential users better. I decided to break my potential users into three groups:

- They seek health for themselves
- They seek health for clients as part of their career
- They seek health for loved ones



[Click to view larger](#)



ANALYSIS

Personas (Or Different User Types):

I used the user groups defined in my empathy maps to create three unique personas to keep in mind for the project.

Sarah: The primary user, who values her health and wants to be able to keep a close eye on improvements she wants to make. It's important for her to improve her quality of life at the most affordable cost.

David: A health practitioner who recommends this product to his clients, who can share their results with him so that he can provide the best care to meet their needs.

Laura: She uses BioBridge to keep track of all the bloodwork for her family. She wants to catch any developing health issues early to make sure her children have a bright future.

Sarah French

Seeks health for self.

Age: 31
Education: BA
Occupation: Teacher
Family: Married, no children
Location: Seattle, WA

Motivations

- Wants to live a long and healthy life
- Wants to prevent developing diseases that may run in her family
- Wants to be a "biohacker"
- Wants to look good and feel good every day


Technology

Desktop: ●●●●●

Mobile: ●●●●●

Social Media: ●●●●●

Technical: ●●●●●



"I want to be the best version of myself that I can possibly be."

Frustrations

- Health screenings are expensive and inconvenient and confusing for Sarah
- Insurance makes all the calls for Sarah's current healthcare
- Needs help understanding lab results

Personality

Invertor
●
 Extrovert

Analytical
●
 Creative

Loyal
●
 Fickle

Passive
●
 Active

Goals/Needs

- To determine what lifestyle habits to adopt to improve her quality of life
- To get regular health screenings as a preventative health measure
- To find an affordable way to obtain optimal health

Hobbies

Running, Cooking, Reading, Staying Active, Listening to Podcasts, Pinterest, Recipes, Camping, Biking

David Wilson

Seeks health for clients.

Laura Hill

Seeks health for a loved one.

Age: 38
Education: D.C.
Occupation: Chiropractor
Family: Married w/ children
Location: Bakersfield, CA

Motivations

- Wants the best for his patients' health
- To have a great reputation so that his business continues to grow
- To provide support to his clients at a valuable price

Technology

Desktop: ●●●●●

Mobile: ●●●●●

Social Media: ●●●●●

Technical: ●●●●●



"I only recommend things that I believe in to my clients."

Frustrations

- Patients aren't at their optimal health and want to find answers to lack of response to health efforts they have made in the past
- Lab tests he would like his clients to have are not affordable
- Patients don't understand how to best implement better health efforts

Personality

Invertor
●
 Extrovert

Analytical
●
 Creative

Loyal
●
 Fickle

Passive
●
 Active

Goals/Needs

- To provide trustworthy care to his patients
- To help motivate his clients realise the value of optimal health
- To help his clients around the hurdle of insurance when trying to better their health

Hobbies

Hiking, Tennis, Golf, Watching Sports, Spending time with his family, Self-experimentation.

Age: 34
Education: BA
Occupation: Stay-At-Home Mom
Family: Married w/ children
Location: St. Louis, MO

Motivations

- Wants to set her children up for a lifetime of success and a bright future
- Wants to prevent her children from developing diseases
- To help her children keep a consistent healthy lifestyle

Technology

Desktop: ●●●●●

Mobile: ●●●●●

Social Media: ●●●●●

Technical: ●●●●●



"I want the best for my kids, at a reasonable cost."

Frustrations

- She doesn't have a large budget for her children's healthcare, but she wants the best
- She doesn't have time to take her children to even more appointments
- Not sure of the best methods or hierarchy to implement positive lifestyle changes for her children

Personality

Invertor
●
 Extrovert

Analytical
●
 Creative

Loyal
●
 Fickle

Passive
●
 Active

Goals/Needs

- To find kid-friendly ways to implement positive changes for her children
- To find an affordable way to determine the best approach to health for her children
- To minimize her own stress while doing what is best for her children

Hobbies

Yoga, Hiking, Swimming, Book Club, Shopping, Cooking/Baking, Pinterest, Gardening, Traveling

ANALYSIS

How Might We:

To make my problem statement more actionable, I used the insights from my research to develop an action plan based around the following list of “how might we” statements.

- How might we obtain easier access to lab testing for general health?
- How might we reduce the stress of getting blood-work?
- How might we make lab testing more affordable?
- How might we simplify test results to be easier to understand for the consumer?

IDEATION

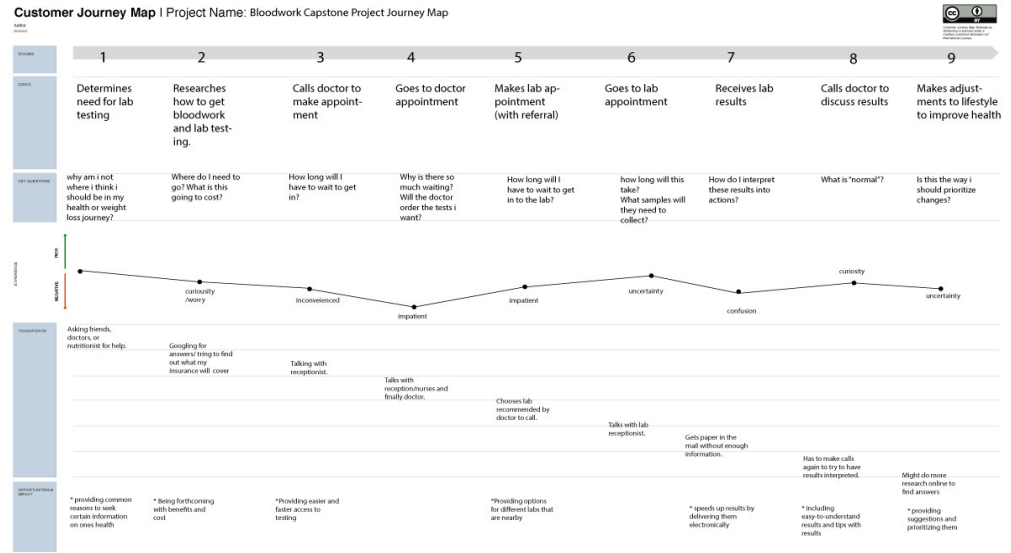
IDEATION

Journey Map:

I created Journey map to show the journal of a typical user seeking bloodwork.

User Stories:

The diagram below shows the user stories based on actions that users would want to take and expect to be able to complete with the product. These played a critical role in ideation.



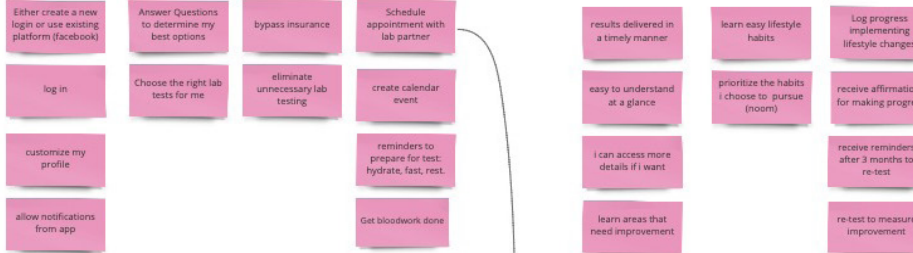
[Click to view larger](#)

As a Seeker of health I want to be able to:

Epic



User Stories



Release 2



[Click to view larger](#)

INFORMATION ARCHITECTURE

INFORMATION ARCHITECTURE

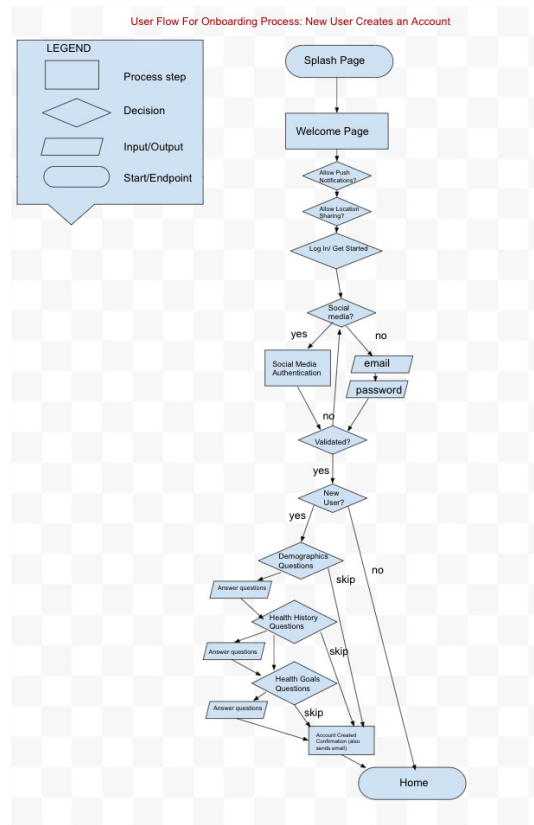
User Flows:

I created user flows to show the journey the user might potentially take when interacting with my product.

Then I defined the MVP (Minimum Viable Product) red routes and determined them to be:

- Onboarding
- Booking a Test
- Reading Test Results

I created user flows for these routes and referred to this flow in order to begin to build my screens in the early stages of sketching.

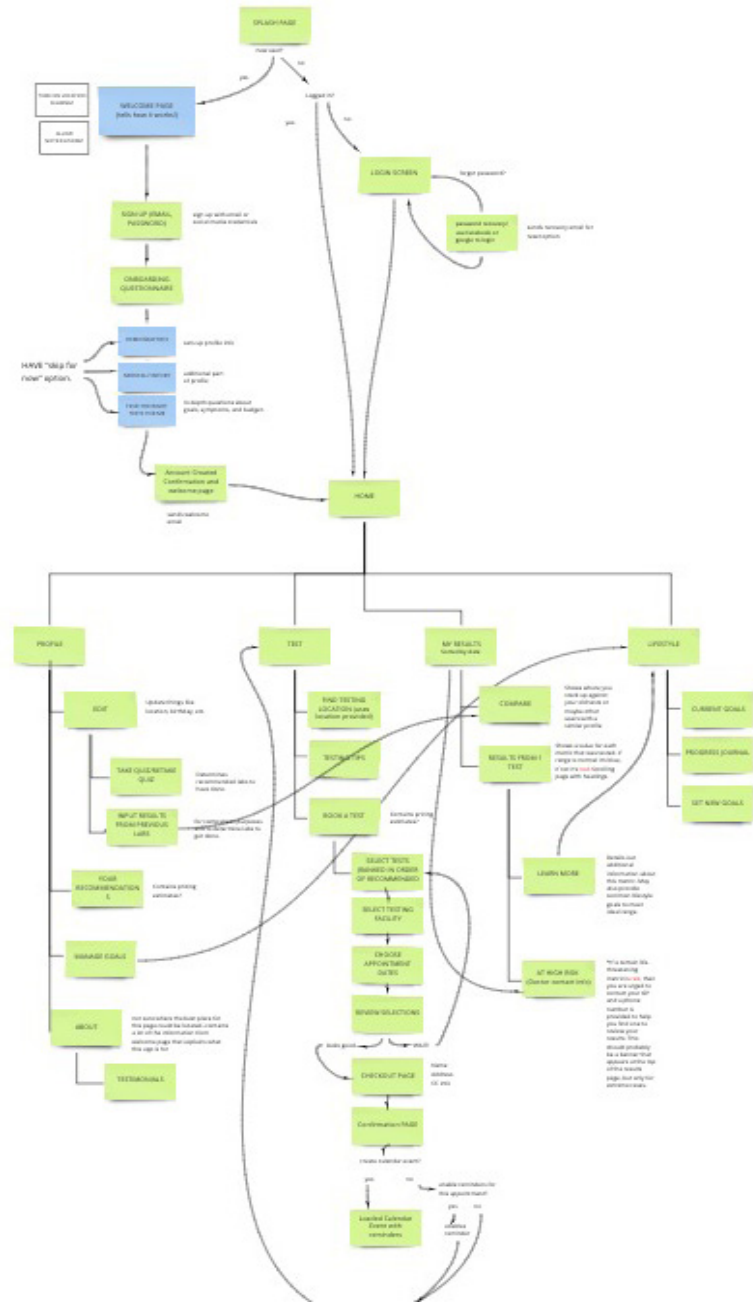


[Click to view larger](#)

INFORMATION ARCHITECTURE

Sitemap (or App Map):

I started to visualise all of the pages I was going to need to bring the project to life. I created this sitemap to organize these pages into an information structure that would act as the blueprint for the upcoming design.



[Click to view larger](#)

DESIGN

DESIGN

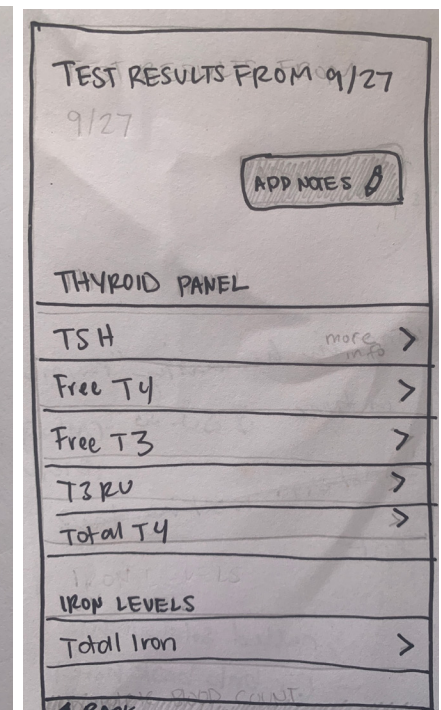
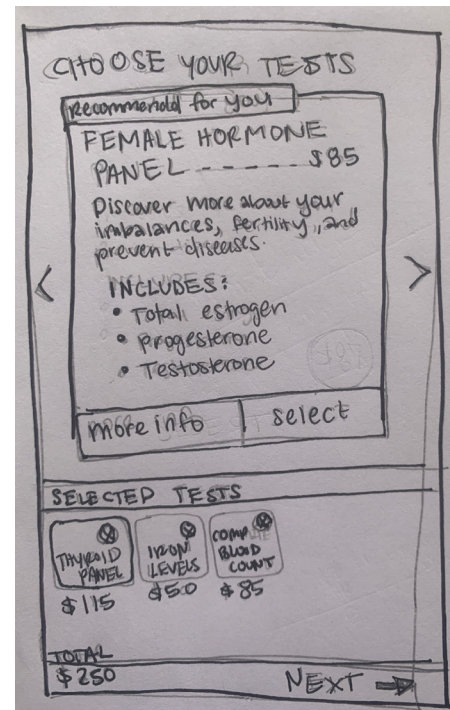
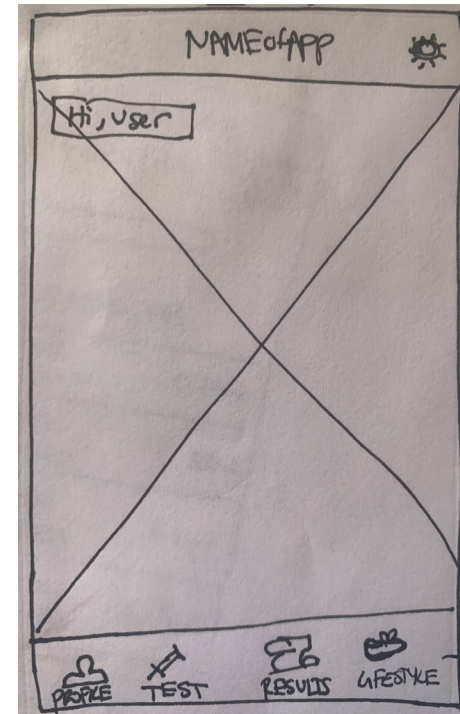
Sketching:

I heard many times during user interviews that keeping stress low was a major goal for anyone in pursuit of optimal health and wellness. For this reason, I sought simplicity and straightforwardness for the flow as well as the look and feel for BioBridge.

I started with a home screen with navigation icons at the bottom to help the user easily access the route they need. I wanted to keep it uncluttered and add a calming background image to help with that low-stress feel.

On the test-selector page, I wanted the user to be able to access detailed information about each test while adding them to the cart, and to be able to easily remove them on the same screen. During research interviews, I found that almost everyone had no idea what tests to choose for themselves, so I wanted to provide the education for that within the app. I also wanted it to be clear to the user that certain tests are recommended for them based on their user profile.

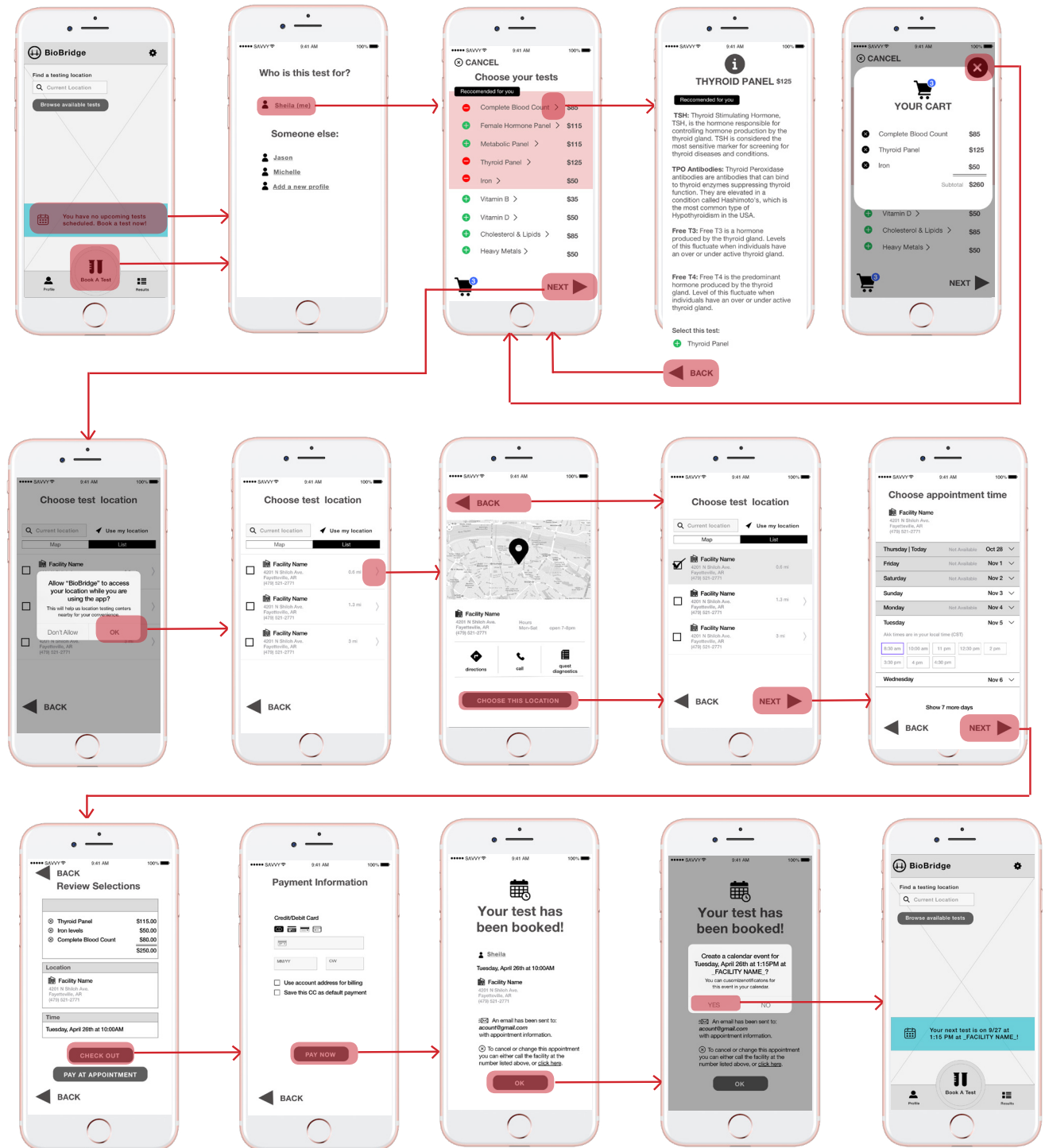
Here are a few rough sketches from early phases:



DESIGN

Wireframes:

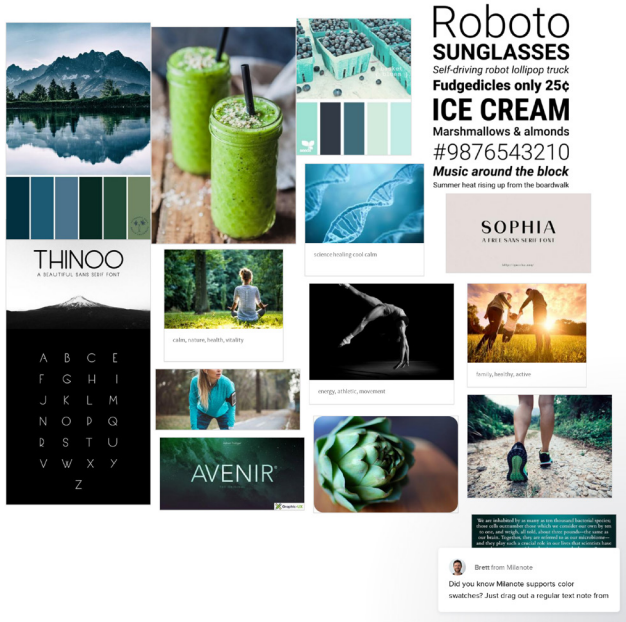
Sketches turned to wireframes and first testing began. I refined these wireframes with feedback from my mentor, and created a wireflows for my red routes. These wireflows helped me see what the user would experience when performing the red route tasks within the app.



DESIGN

Styleguide:

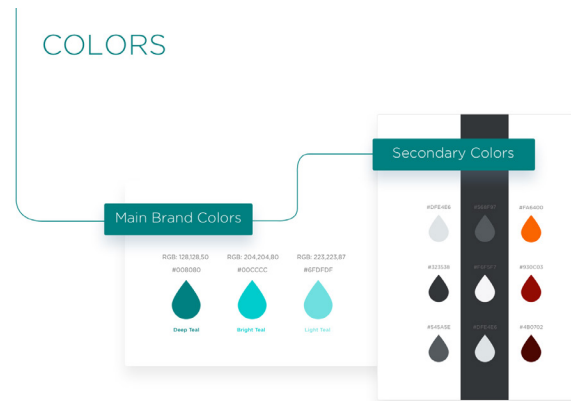
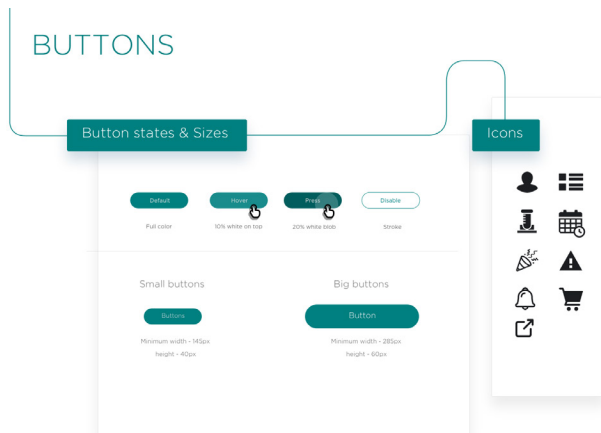
To style the design, I created a moodboard and used it to create a styleguide to apply to my wireframes.



I began with cool tone colors because blue is calming, clean, and serene while green can convey value and saving money. What I also like about green is that it is a color of nature, which is a big part of health. I loved the idea of both blue and green, so I combined them for a teal color to use as the main color. From there, I chose a versatile palette of greys along with some complimentary warm colors to use for warnings and other things that need to grab attention.

I chose a lot of imagery that conveys nature, health and liveliness. The aim of the project is to help people feel their best, so images of people that seem very content, energetic, and active work really well.

I ended up choosing to use one typeface, Gotham, in different sizes and weights. For the buttons and forms, I just kept everything as clean and simple as possible. I wanted to get a very high-tech yet simplistic feel that isn't too intimidating and feels professional and trustworthy.

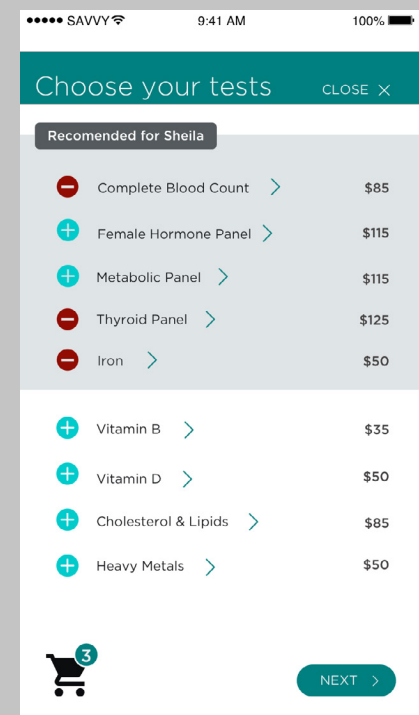
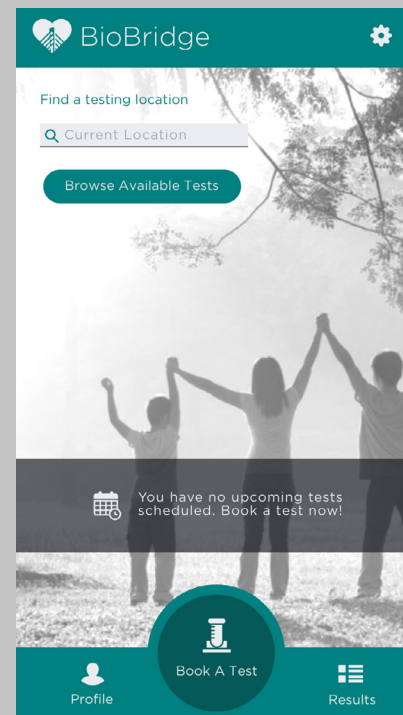
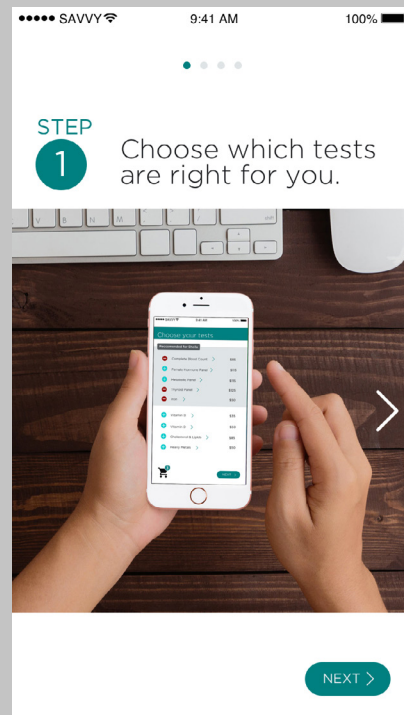
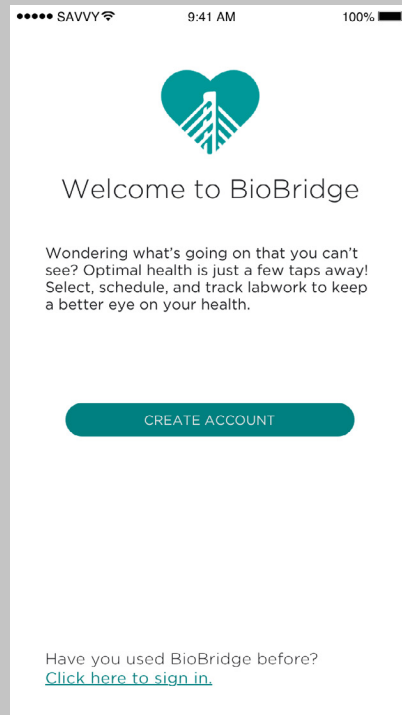


DESIGN

Hi-Fidelity Prototype:

Here are some key screens that I created after applying style elements to my wireframes.

[You can also find my clickable prototype on InVision by clicking here.](#)



Welcome Screen

My main goal for the welcome page was to introduce users to the app for the first time and allow them to begin the onboarding process with an option to bypass if they already have an account.

Tutorial Screens

I created a series of tutorial screens that explain an overview of the application's capabilities to simplify things and keep everything clear.

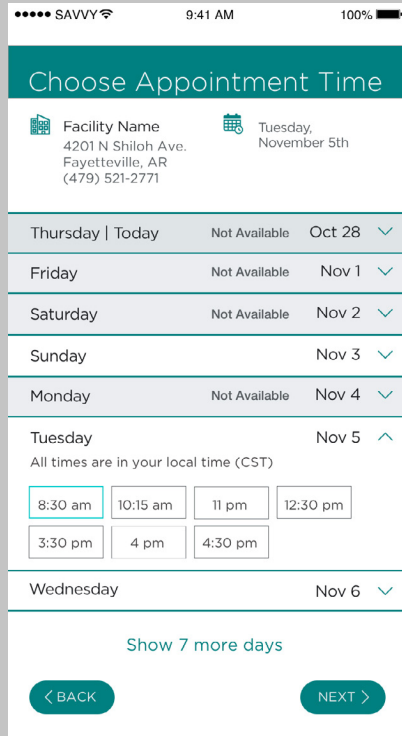
Home Screen

The home screen is introduced to the user after onboarding is complete. The main action is for the user to be booking a test.

Test Selection

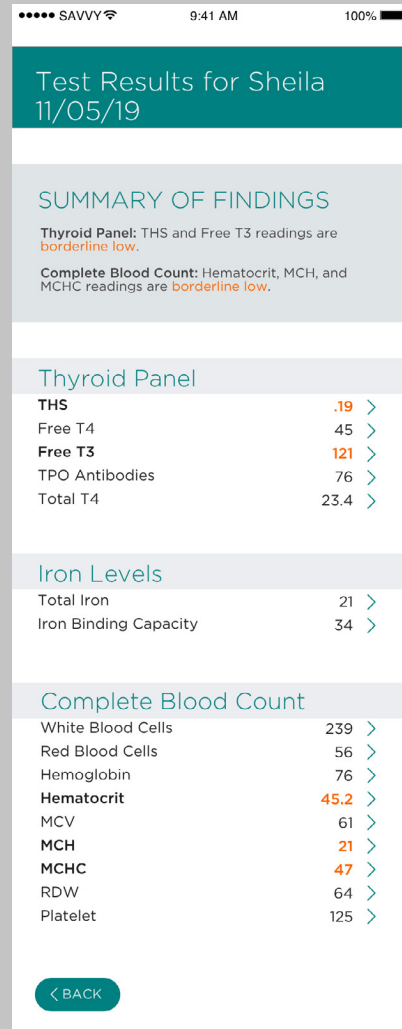
I wanted users to be able to select tests and also be able to learn more information and details about them while doing so.

DESIGN



Selecting Appointment Time

I had to find a way for users to be able to schedule a day and time that did not conflict with the test location's schedule.

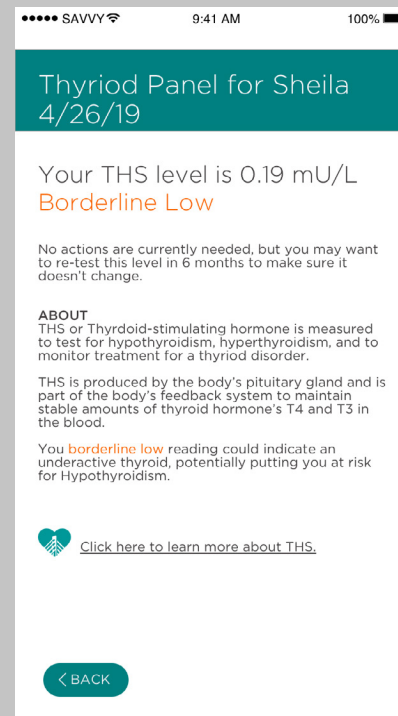


Viewing Results

This screen shows an overview of all the results from the test.

Recipe Discovery

Once the user clicks on a rest result, they are taken to this screen to be able to see more detailed information about the test result.



USABILITY TESTING

USABILITY TESTING

Feedback:

I conducted two rounds of usability testing on my product with a prototype on Invision. The prototype was tested for usability with 5 participants to discover any issues users might have when trying to complete certain tasks. I sought to find out about critical and major issues, but also was happy to make minor updates as well from the feedback I received.

During the first round of testing, the main issues I addressed were the call to action button on the first onboarding screen because users were not gravitated to it when it said "HOW IT WORKS" so I changed it to "CREATE ACCOUNT". Also The visibility of "continue" buttons on the questions pages - buttons were disappearing on extended screens so that was an easy fix, I just needed to make the screens shorter to move the button up to a visible area.

And one final major issues was clickable hotspot area for the test selection page. I had only made the toggles clickable, and it needed to be the entire word.

During testing, I also received positive feedback. I was told by a few testers that my product was "trustworthy", "impressive" and even "fantastic", which was very reassuring for me.

After the first round of testing, I made iterations, and then conducted more testing. I luckily never came across any extremely critical issues that would completely disable a user from completing a task, but I was very happy to discover minor changes to increase the overall experience. This was definitely my favorite type of testing to conduct for that reason.

Iterations:

Feedback was organized into critical, major, minor, and normal, and then updates were made to the screens. I could definitely see this cycle being repeated over and over again until the end of time, but after two rounds, anything major was found and resolved.

It's been fascinating to me to see how these usability tests can provide many new ideas and perspectives that can really increase user experience.

I definitely have learned a lot during this entire process, and hope to continue to build my library of insights to help kick off my new career. I believe I am ready to pass this project off to developers!

Priority	Issue	Recommendation
Critical	No Critical Issues	
Major	Call to action button threw Rick off	Re-visit CTA button on first onboarding screen
Major	Not sure hot to view results	Add call to action on view results notification
Minor	Text on success page seems cramped	Increase leading
Minor	There is no reference range on the view results page	Consider adding a column for reference range beside the result metrics
Minor	Text on metric info page seems cramped	Increase leading, add more space
Minor	One tester was confused about it looking like you could select more than one facility for testing	Re-visit facility selector page to see if improvements could be made
Minor	Some of my questions seem a little too ambiguous	Re-visit "activity level" and "special dietary requirements" questions to make sure they encompass all users.
Normal	Some texts blocks are large	Consider reducing the amount of text wherever possible
Normal	Recommended test might be highlighted more	Consider adding icons for more emphasis
Normal	The onboarding process has a lot of screens	Consider combining screens to reduce the number of screens for onboarding
Normal	Cart is in an unusual place	For consistency, consider adding cart access to top right corner in the header
Normal	Map does not show where user is located	Consider adding a pin to show proximity on map for finding a testing facility.
Normal	Checkmarks and plus/minus toggles are inconsistent throughout the app	Consider changing toggles and checkboxes
Normal	Paying in the app lacks incentive	Consider providing discount of some sort for users paying in the app rather than at their appointment

Click to view larger

CONCLUSION

CONCLUSION

Next Steps:

- Connect with testing facilities and develop partnership for discounted testing services for users for BioBridge
- Create database of all testing facilities that approve partnership to be used in the app's facility search feature
- Work with developers to add code and functionality to the app and test it again

Lessons Learned:

I feel very lucky to have been able to undergo this project through Springboard's UX Design course curriculum. I've learned a lot about UX Design including research, testing, prototyping, and more. I enjoyed using my graphic design skills to make this project come to life, but here are some highlights of things I learned that I was less comfortable with in the beginning.

- I learned a lot about conducting research and staying unbiased and being able to get information from test participants without leading them to the answers. This was a lot more difficult than I imagined!
- I gained a lot of experience in sorting information. I had to create affinity maps and empathy maps as well as getting more familiar with information architecture.
- As a graphic designer, I have a bit of a background in sketching, but was not all that comfortable with sketching digital screens. Now I feel like I've jumped over that hurdle and am much better at expressing my ideas for mobile page layouts. I also learned a whole lot about the Design Standards for Apple and Android devices. That is definitely something I'll be keeping up with!