

✦ Jiani Huang's
🐱 Portfolio ✦ 🍊

An Product Designer and An Artist

Contact

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Hey!👋 I'm Jiani Huang, an empathy driven product designer who **focuses on User-centered and user friendly design. Dedicated to creating accessible technical products that can solve health related issues**, committed to addressing the needs of marginalized groups and underprivileged communities, etc.

Additionally, I'm also an **oil painting artist** who's passionate to visualize emotions into various natural subjects, and love to explore different ways to experience the potential of visual art.

Education **University of Utah** - Bachelor of Fine Arts
Emphasis on Painting / Drawing

My skills

- UI Design
- StoryBoard
- Prototyping
- Data Analysis
- UX Research
- Usability Testing
- Oil painting
- Digital drawing
- Graphic Design
- Illustration
- Wireframe

My tools

Figma
Procreate
Adobe Creative Suite
SQL / Python

Contact

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01

Snug Mellow

Team work
Industrial design

02

Medisync

Individual Project
Systematic design
UI design
UX Research

03

Sizzle

Individual Project
UX Research
UI Design

04

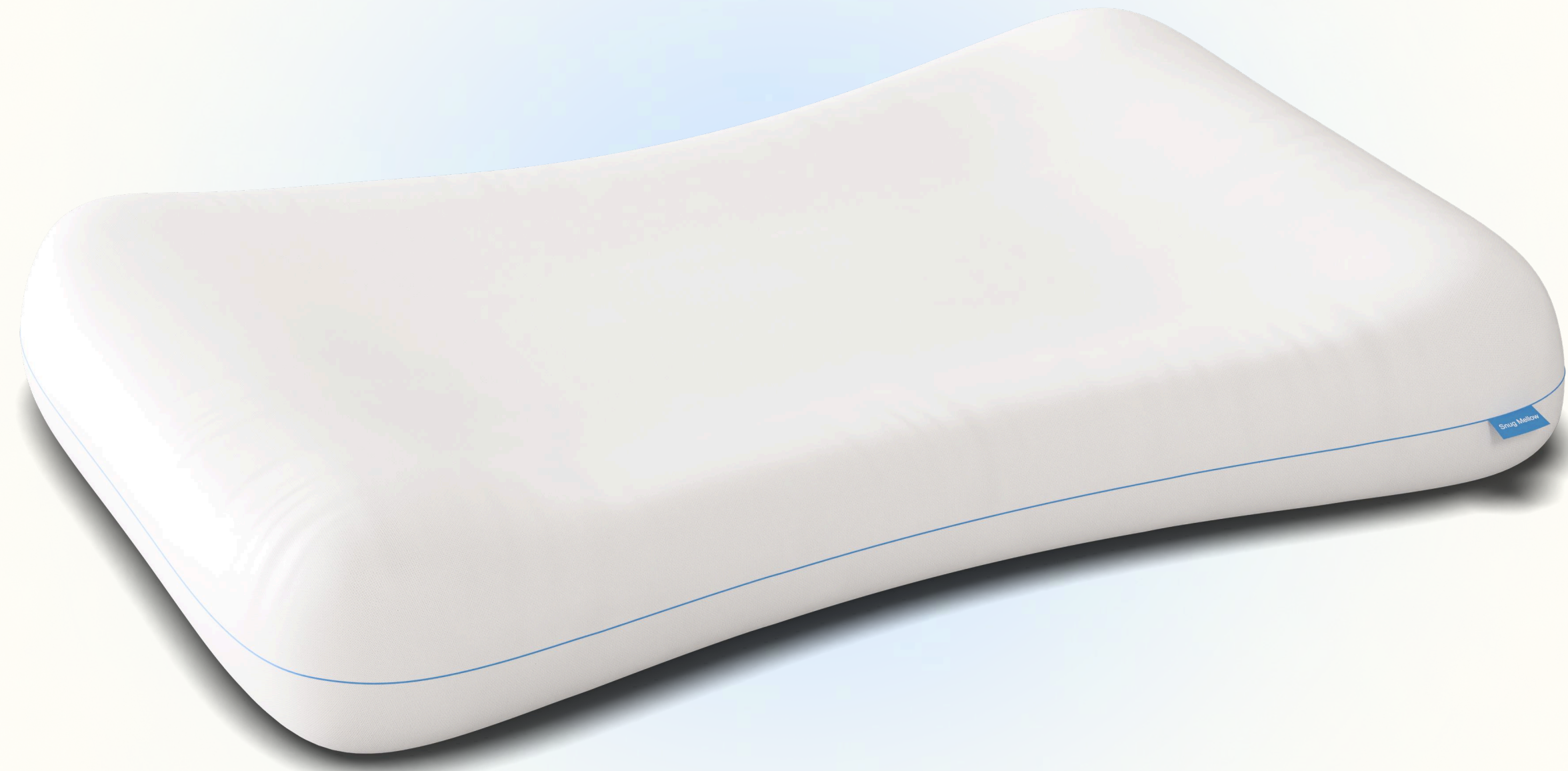
Academix

Teamwork
Redesign Project
UX Research

05

Artwork

Oil painting
Drawing
Installation



Snug Mellow

Project Duration

May 2023 - Oct 2023 (5 months)

My role

Product designer & Lead/ UX researcher/ Technical researcher

Other team member & Role

Kaijie Fu - Technical assistant / Programmer

My Contribution For Snug Mellow

/1

- Identified project statements.
- Conducted market research, understand the market trending.
- Conducted competitive product analysis, identified their strengths and shortcomings

/2

- Create sketches of product's structure.
- Conducted interviews with 25 participants to understand their frustrations and demands.
- Conducted research on product's material.

/3

- Conducted technical research including embedded electronic components, and LLM integration.
- Corporate with team member on technical challenges.

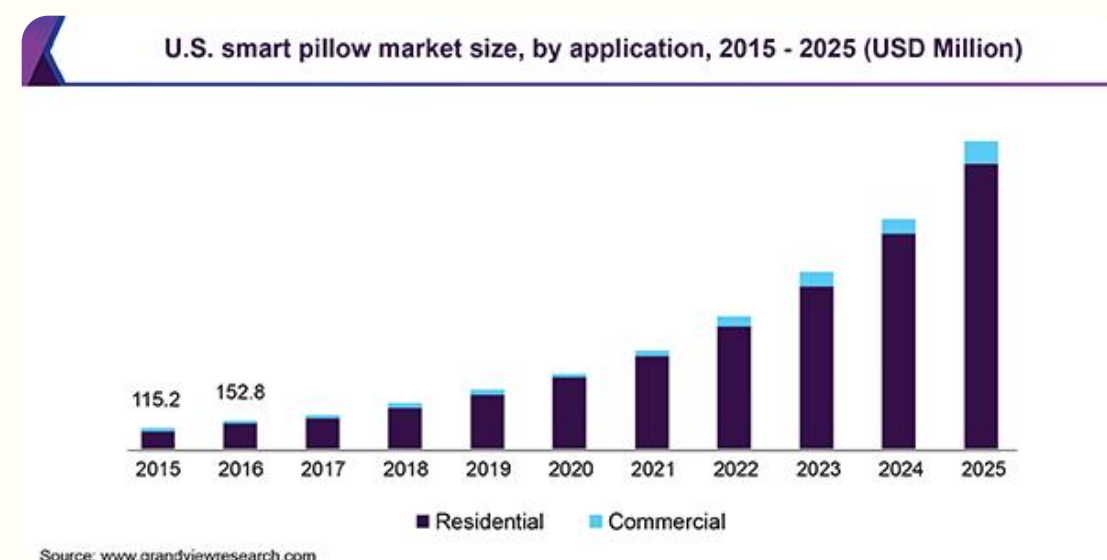
Problem Statement

Approximately 1 in 3 adults worldwide experience insomnia symptoms, and about 10% have been diagnosed with insomnia disorder. Insomnia can lead to alcohol abuse, anxiety, and fear of sleeping, which most importantly causes a series of mental problems such as depression and anxiety.

Project Goal

This project aims to integrate a smart pillow with a trained AI system to solve or redeem insomnia problems with sound stimulation.

Market Research



Grand view research

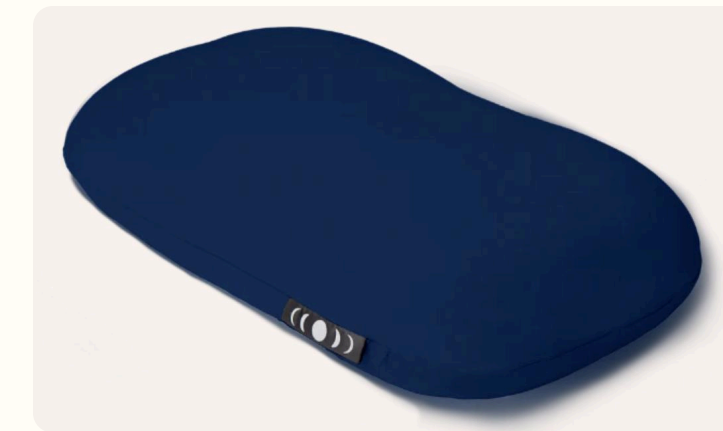


Data Bridge Market Research

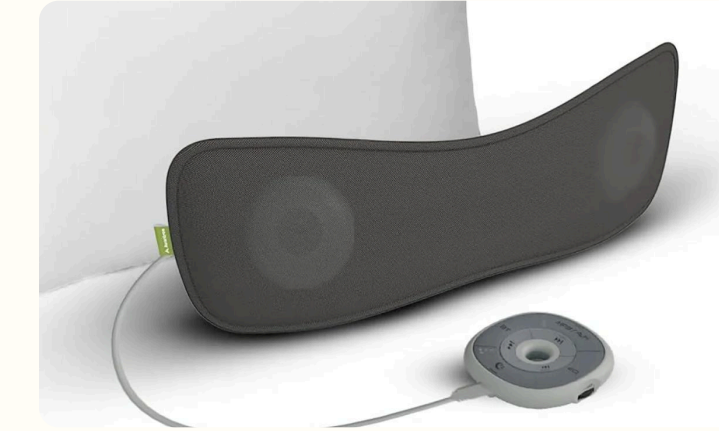
According to the data from Grand View Research and Data Bridge Market Research, there is a great demand for smart pillows both in the current U.S. and worldwide market. The need for smart pillows is shown to be rising positively in the charts, and it is estimated that the demand will continue to grow in the future. As for the United States, the market share for smart pillows in 2023 has already reached USD 654.7 million, an increase of 21.09% compared to USD 540.66 million in 2019. It is expected to reach USD 2376.9 million by 2030, representing a significant growth.

Competitive Product Analysis

The product below represents three different types of smart pillows in the current market. All of them have different functions to improve people's sleep quality, either from the physical design side or technology integrated.



MoonPod



Avantree Slumber pillow speaker



Nitetronic

Strength

- Designed for anxiety, ADHD, stress etc mental illness problems, insert sensory relief technology
- Considered 4 dimensional and Adaptive design
- serves the function of speaker
- Has physical remote control, easy to use
- Offers various ways to stream the audio
- Can effectively improve the problems of snoring
- It has been clinically proven that it can averagely eliminate 67% of snoring issues.

Shortcoming

- Weighted 12 pounds, it's too heavy compared to the average light of 3.5 - 4 pounds from other simple pillows
- Can not integrated with the pillow
- It has no battery, must be plugged into the wall outlet, might be hard to operated
- The price is too expensive
- The equipped instrument is too heavy and bulky, which affects the user experience.

Innovation opportunities of Snug Mellow

Based on the competitor product research and market research analysis, I believe there might have a great potential to integrating AI, streaming function with pillow in future market. Users can improve the symptoms of insomnia with the help of the AI psychological coach while playing sleeping aid streamings.

User Research

Interview Goals

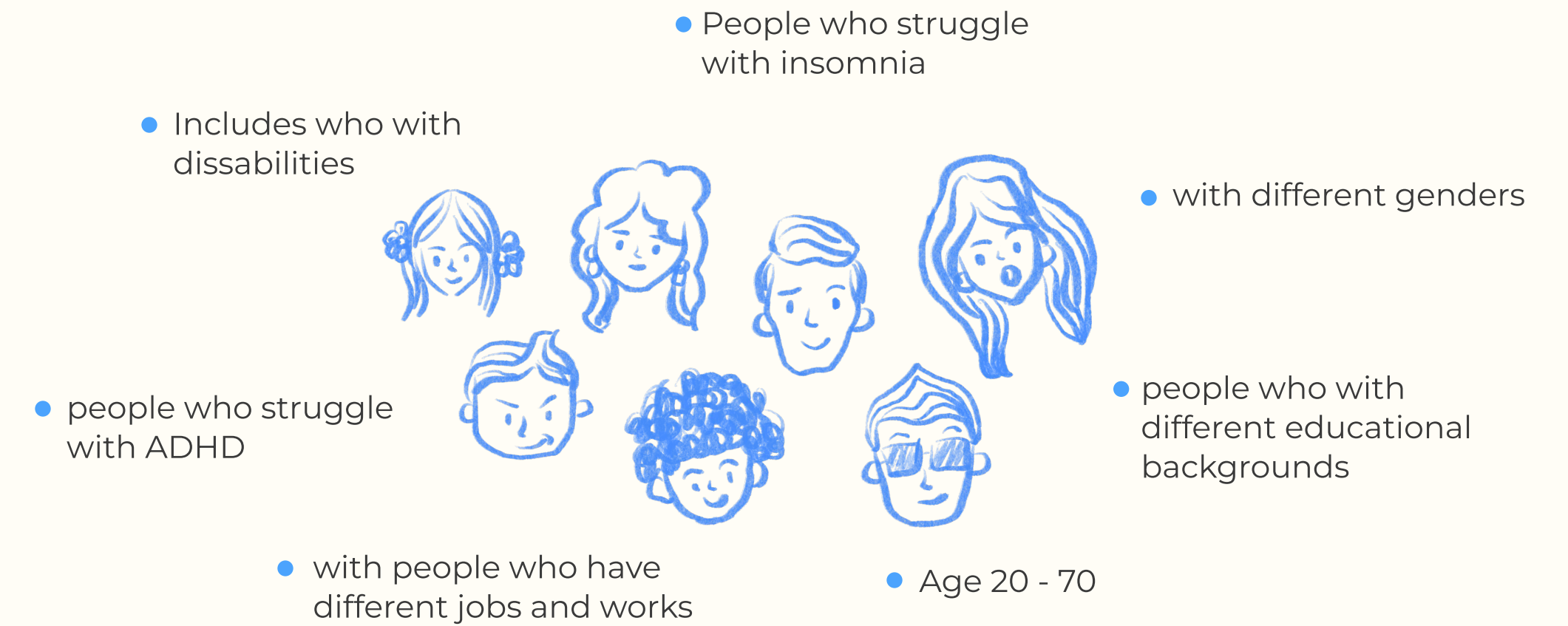
- Understand the pain points of people who with insomnia issues, the obstacles they faced
- Acknowledge people's thoughts and feelings about using electrical based technology while sleeping
- Understand other ways that can help people who with insomnia
- Understand the sleep habits of people who has been concerned with anxiety and ADHD
- Acknowledge people's reception to use AI product.

Interview Questions

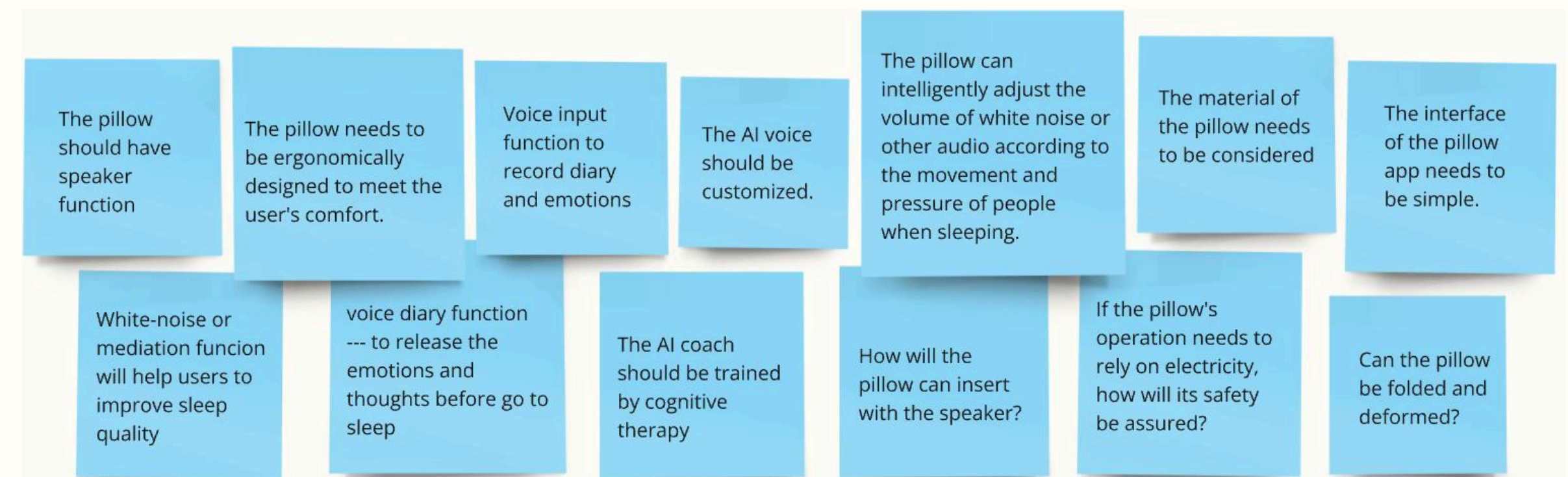
- What is your biggest problem that you think insomnia brings to you?
- Have you ever been using electronic products that can improve sleep quality? If so, did they work well?
- Except for taking medicine and visiting a doctor, are there any other ways that you think can address the problem of insomnia or anxiety
- Will you concern yourself currently experiencing Anxiety and ADHD? What are your thoughts before going to sleep?
- What do you think about using AI products in your daily life? Do you consider communicating with AI will benefit your life?

Participants Characteristics

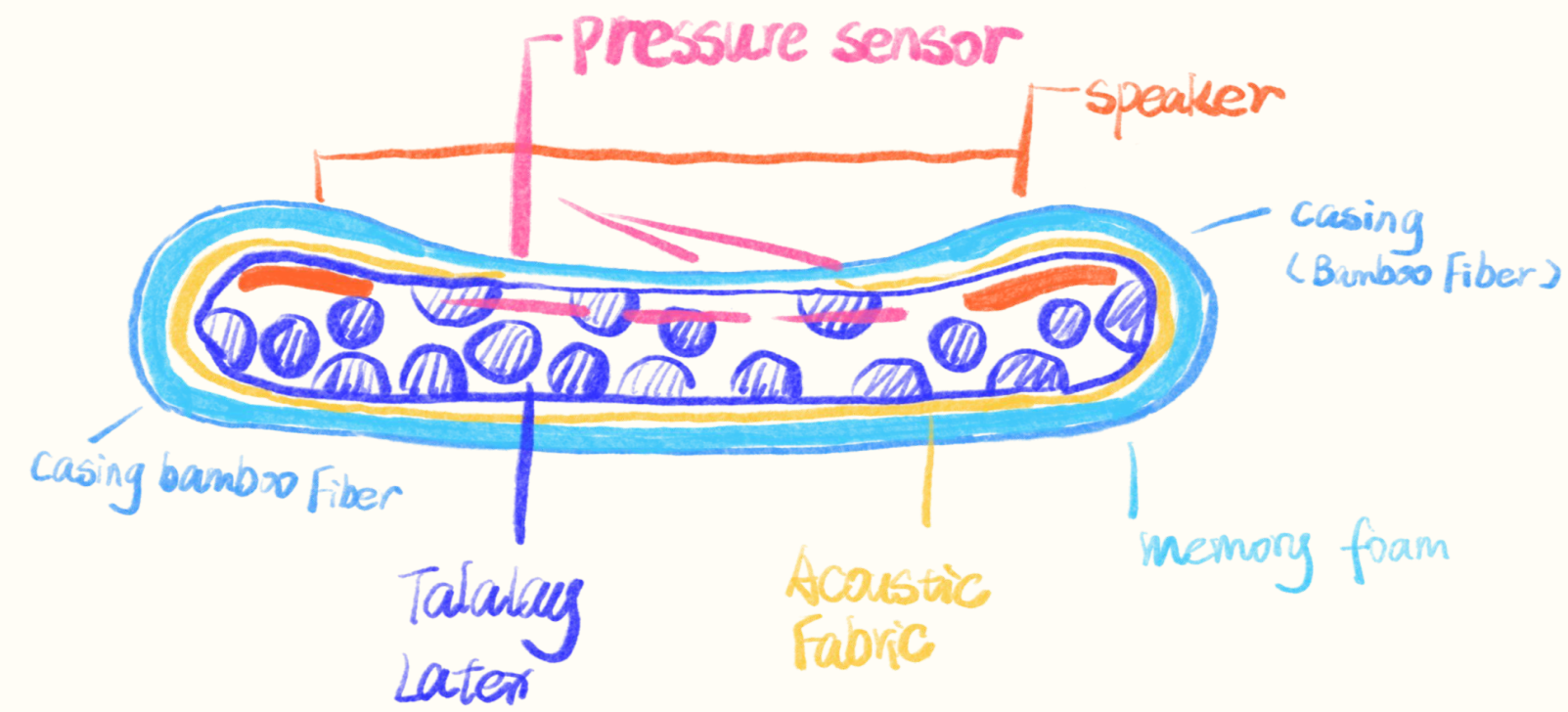
Total 25 participants



Product BrainStorm



Pillow Structure Sketch



This is an initial sketch of the pillow's structure: It features a lower middle section and higher ends, designed to match the curve of the neck and maintain the comfort of the cervical spine.

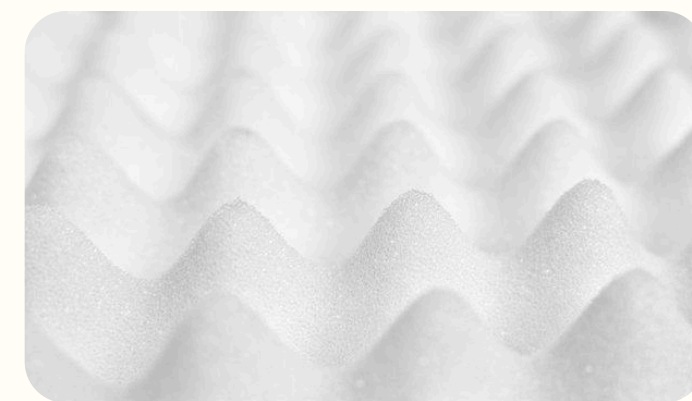
The pillow consists of six parts. The outer cover is made from bamboo fiber, followed by a memory foam layer, which provides excellent support and pressure relief and absorbs sounds from internal speakers. An additional layer of acoustic fabric sits between the memory foam and Talalay latex fillings, further dampening sounds to prevent disturbance to partners. Inside the pillow are two speakers and three pressure sensors embedded within the Talalay latex for sleep aid audio playing, and capture the user's motion while sleep to adjust the sleeping audio, improving sleep quality.

Fillings research



Talay Latex

From <https://www.tomsguide.com/features/dunlop-vs-talay-latex-for-mattresses>, (Image credit: Getty)



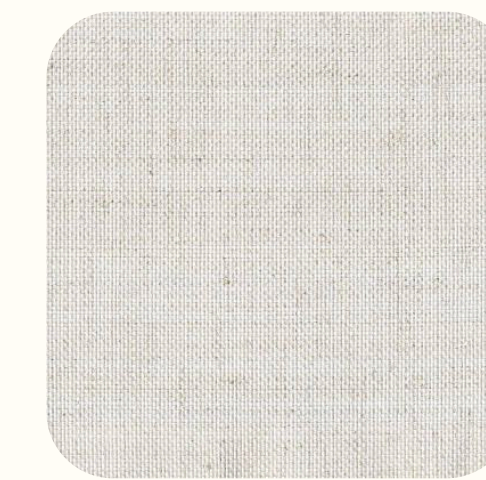
Memory Foam

From Adobe Stock "Memory foam details" (Image credit: [Cohncentric](#))

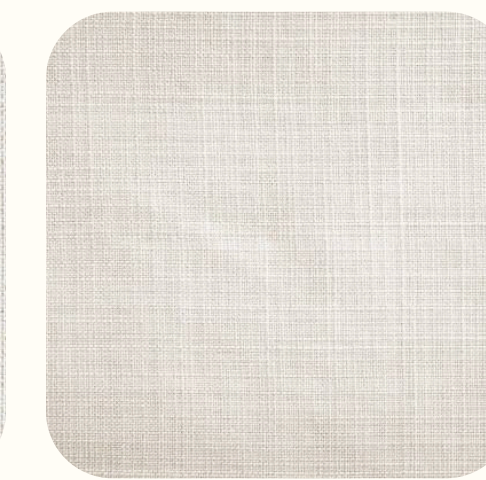
We would primarily use [Talalay latex](#) as the main Filling inside the pillow and [Memory Foam](#) as the supplementary Material. Both of those two materials are breathable, offer great softness, and support functionality. The vanilla-like smell of the Talalay latex will help users release their tense emotions. According to The Smell Report from SIRC, Medical experiments have shown that vanilla fragrance reduces stress and anxiety (Kate et al. Centre).

Fabrication Research

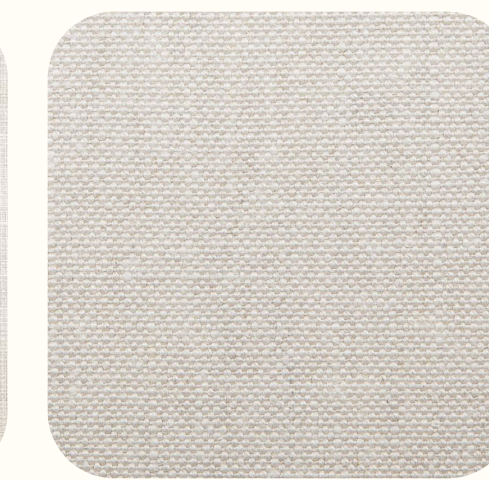
During my research below, we considered that [Bamboo Fabric](#) would be the first choice for a pillowcase. The features of softness, highly breathable, hydrophilic and strong durability will not only make users feel comfortable but also protect the inner electronic elements and fulfill the requirements of heat dissipation.



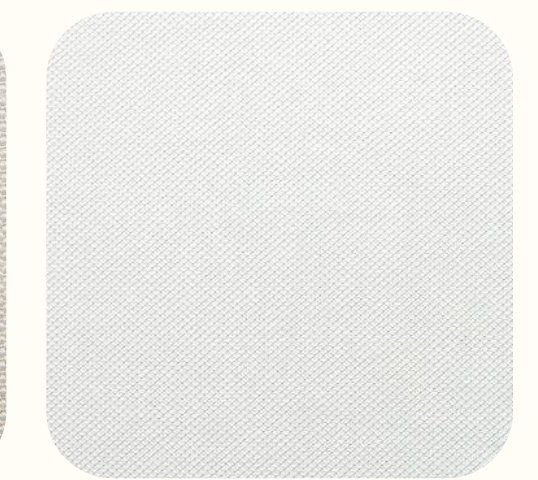
Cotton



Bamboo Fabric



Linen



Polyester

Tactile sensation

Soft

luxuriously soft

Rough

Slightly scratchy

Breathability

Natural breathable

Highly breathable

Highly breathable

Less breathable

Hygroscopicity

Hydrophilic

Hydrophilic

Hydrophilic

poor hydrophilic

Durability

Less Durable

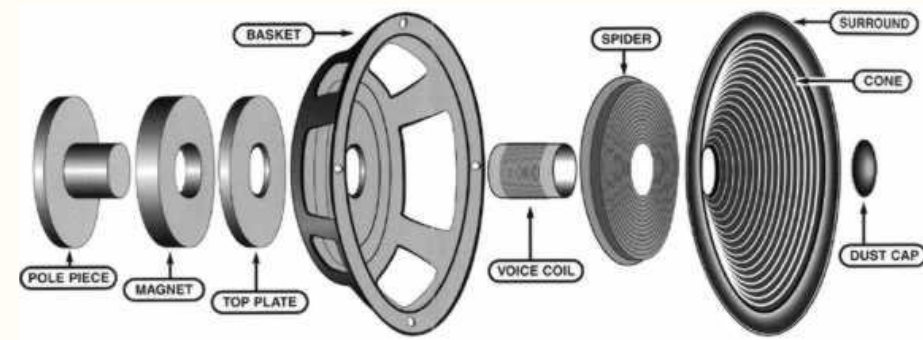
Strong Durable

Very Durable

Strong Durable

Embedded Components

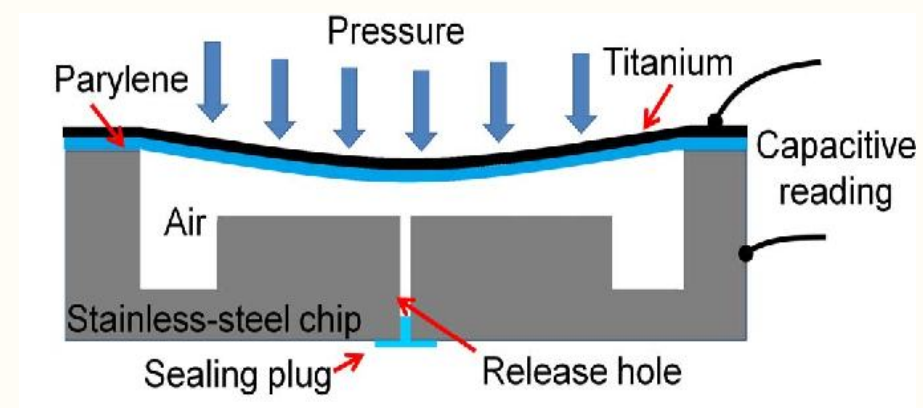
Speakers



<https://mymediainstaller.com/understanding-speaker-parts/>

We plan to design a thin curved speaker. The curved structure will allow the speaker to fit the shape of the pillow more closely. The casing of the speaker will use polycarbonate because of its high-temperature resistance and electrical insulation properties, ensuring a certain level of safety.

Capacitive Pressure Sensor



https://www.yourelectricalguide.com/2019/08/types-of-pressure-transducer.html#google_vignette

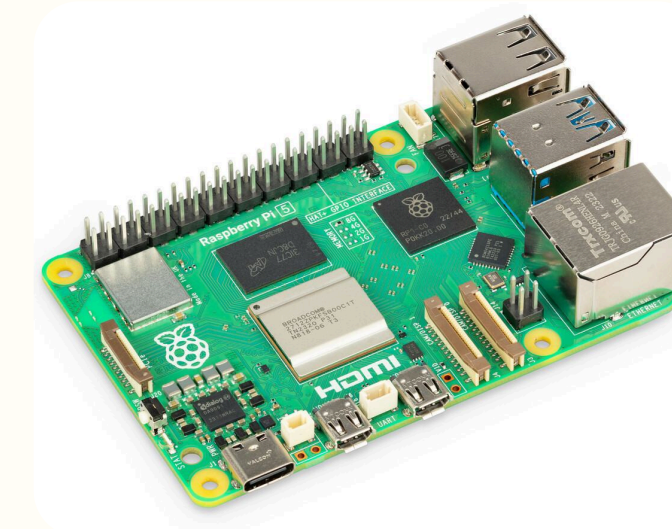
We will use a wearable capacitive pressure sensor inside the pillow, positioned beneath the neck area. When users are experiencing lousy sleep, the sensor will detect their sleep quality by the pressure from the motion of the user's repositioning. The data from the sensor will stimulate the terminal, then start to operate the speaker to play sleep-aid sounds to ensure users' sleep quality. In addition, capacitive pressure sensor will also function well in recording the user's sleep situation.

Technical Research of Controller

The component that we need for the controller is

- **Raspberry Pi** - a minicomputer that provides data input and output as the gateway between the controller and the cloud.
- **Power supply** - offers power to operate devices.
- **Indicator LEDs** - status indicator for devices.
- **Enclosure** - protect equipped electronic components in devices.

Raspberry Pi



<https://www.digikey.com/en/products/detail/raspberry-pi/SC1111/21658261>

The well-developed operating system of Raspberry Pi will enable us to work with various software tools and programming languages due to its support. Most importantly, Raspberry Pi can run multiple processes, which will help us manage multiple tasks, such as sleep quality detection, streaming function, and running our AI functions. It also costs well, can effectively cost the spend to build Snug Mellow.

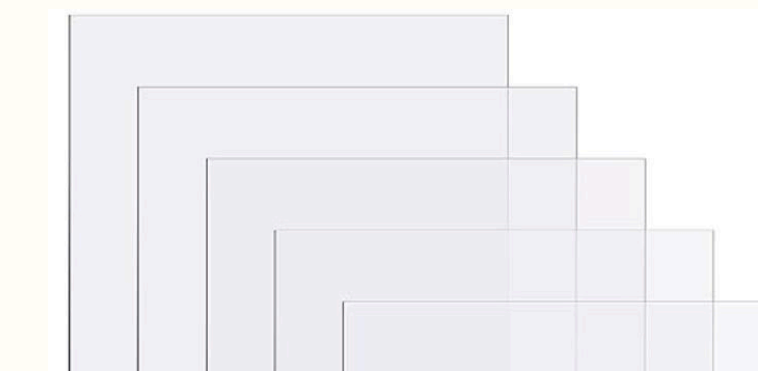
Power Bank

In consideration of safety and ease of charging, we would consider embedding a power bank inside the controller to fulfill the requirements for the power supply. Users can use a USB cable to connect the power bank and recharge it.

Indicator LEDs

The smart pillow controller will feature Indicator LEDs to provide users with visual feedback on the system's status and operation.

Enclosure



<https://www.amazon.ae/Polycarbonate-Plastic-Shatter-Resistant-Document/dp/B0B3XJY9XS>

We plan to use a combination of polycarbonate and ABS plastic to make the controller's enclosure. The mixture of these two materials provides a sturdy exterior that can withstand the impacts and drops of daily use. Additionally, this material has good heat resistance and is lightweight, which can offering a great user experience.

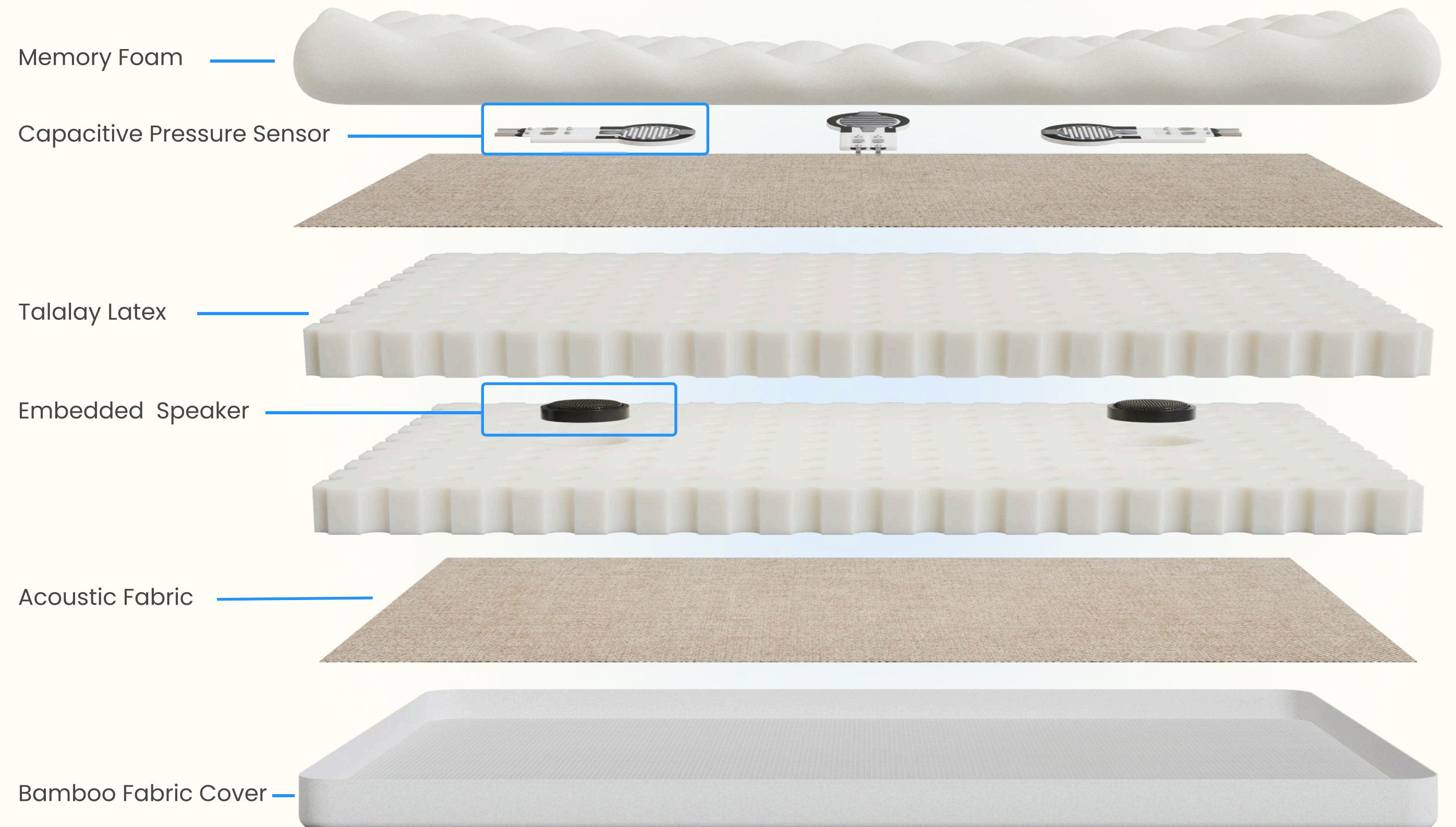
How Does AI Work in Snug Mellow to Improve Sleep Quality?

In this project, we aim to develop a smart pillow integrated with an AI coach and voice diary function to enhance user sleep quality and relaxation. The pillow will incorporate a microchip, which functions as a gateway to receive data from embedded pressure sensors and transmit it to the cloud. The mobile application will send commands to the Raspberry Pi, which will control the speakers embedded within the pillow. For the AI coach functionality, we will primarily utilize the OpenAI API with pre-trained models such as GPT. The model will be fine-tuned with a dataset collected from a diverse group of individuals to ensure accurate and relevant interactions that promote relaxation and sleep. The development process will involve using Python for AI model training, backend integration, and the development of mobile interfaces.

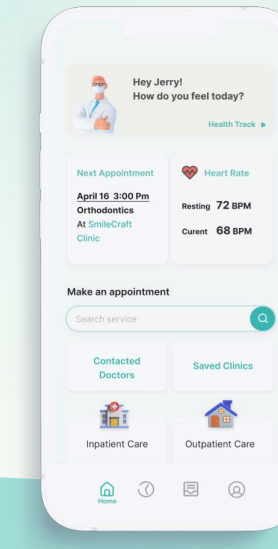
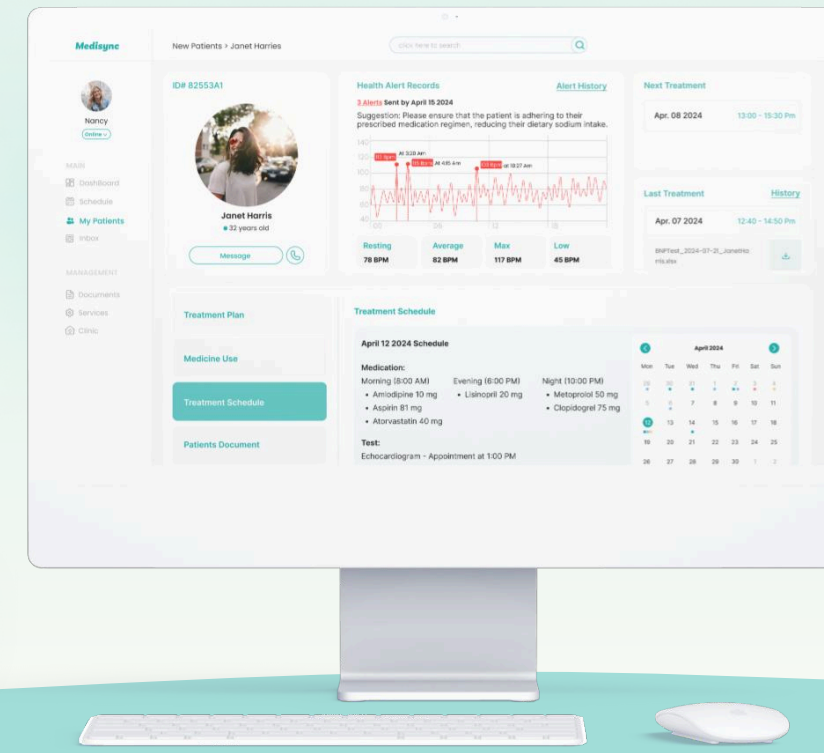
The workflow of Snug Mellow

When users prepare for sleep and activate the pillow using the remote, it will automatically play a pre-selected lullaby or default audio to help them relax. The Capacitive Pressure Sensor continuously monitors sleep status, detecting when the user has fallen asleep and transmitting the data to the terminal. The terminal analyzes movements, such as how frequently the user turns over, and adjusts audio playback accordingly. Upon waking, users can easily review their sleep quality records via our mobile app.

Exploded View Of Snug Mellow



MEDI



SYNC

“ Syncing Health for a Happier Life ”

A medical management platform that dedicates to make the medical industry more accessible to public

Three Systems We Designed for Medisync

Smart Watch

Medisync offers a Smart Watch Widget, so users can link their smart watch with Medisync to monitor their current health situation; when a heart rate alert is detected, medisync will alert the user while asking permission to send an alert to the doctor.

Medisync Mobile App

The Medisync mobile app will let users make medical appointments align with their schedule, they can also track their health condition and medical history on the app, the medical profile will let users upload their insurance information, avoiding the redundant process when check-in the clinic

The Provider Management System

Doctors can manage and view their patients' profile by our management system, the system includes but not limited to a dynamic health data visualization, patient's appointment data, medicine use, medical schedule and patients' medical documents.

Individual Project Duration

Oct 2022 - Apr 2023 (7 months)

My role

UI designer / UX researcher / UX writer

My Contribution For Medisync

Solo Project

/1

- Identified project statements.
- Conducted interviews with 30 People to gather feedback, identified demands and pain points, created personas based on Interviewee's responses, and brainstormed ideas.

/2

- Create wireframes and low-fidelity designs.
- Conducted qualitative and quantitative research methods in the testing phase with each iteration.
- Designed three inter-connected systematic designs to fulfill the user's needs in different roles.

/3

- Create illustrations that demonstrate workflow of the product.
- Create a sitemap that visualizes the product's hierarchy.

Problem Statement

The healthcare system today suffers from a significant communication breakdown between medical providers and patients. Patients often struggle to effectively communicate their symptoms and medical history, making it challenging for doctors to make accurate diagnoses. Additionally, patients face difficulties in maintaining and transferring their medical records, which can complicate seeking care from new healthcare providers or scheduling appointments at different hospitals.

This project aims to design an effective system to bridge the gap between patients and medical providers. It focuses on developing features based on the appointment booking system, file management functions, communication, and health condition tracking.

Research intro

This research used both quantitative and qualitative methods to clarify the product's hierarchy and improve users' success rates in achieving their goals. We collected data on users' conversion rates and time spent on tasks, observed their behavior while using our product, and conducted interviews to gather feedback upon task completion to achieve the project's goals.

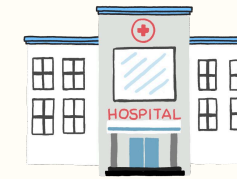
Project Goal

What an Ideal Outcome Would Look Like



1 Jake is a patient who has cardiovascular disease

2 Recently, He just moved to a new state



3 Jake found it difficult to locate a reliable and suitable hospital for continuing his treatment in the new place.

4 Fortunately, through Medisync, Jake found a hospital that offers excellent services.



5 Jake transferred his medical documents and uploaded his insurance information through medisync while booking his first appointment.

6 So he doesn't need to fill out his basic information like insurance again in the new hospital.



7 After Jake finished his first appointment, He connected with his doctor in medisync and applied Medisync's widget with his Apple watch.

8 One day, he noticed that his watch generated an alert.



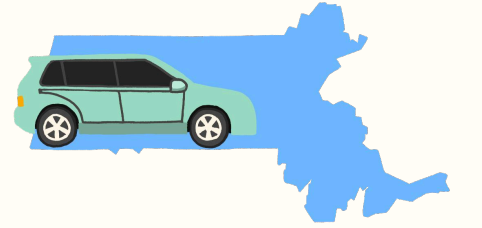
9 So Jake sent this abnormal health data to his doctor through medisync.

10 Dr. Kim noticed Jake's abnormal data

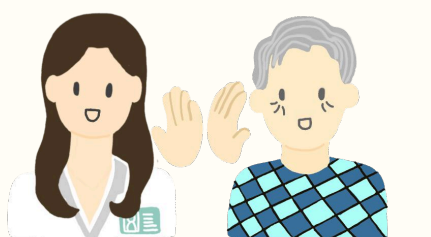


11 So she contacted Jake to discuss his case.

12 Through Medisync, Jake got an effortless and seamless treatment!



medisync



User Pain Points

There is no platform for users to manage and restore their history of medical test results.

Traditional appointment booking ways make it difficult for users to track their appointment history

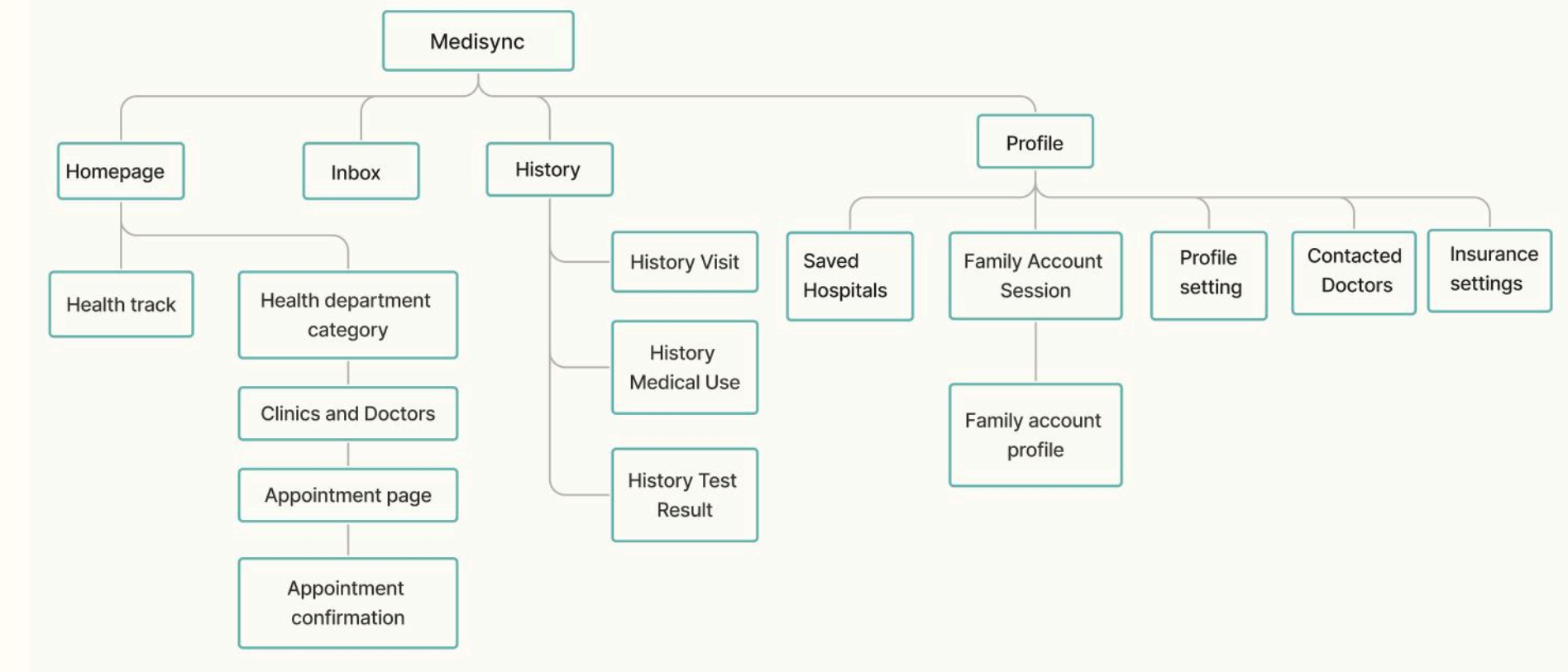
When patients cancel their appointments, the clinic cannot promptly notify other patients who need to reschedule about the available slots.

The current appointment methods vary between clinics, making users feel overwhelmed when managing multiple appointment requests.

The clinics find it hard to access, track, and manage referral patients' documents and files.

It was difficult for users to transfer their medical history to other clinics with unmanaged paper files.

Proposed Mobile App Site Map



The First Iteration of Medisync

Doctors can use this function to generate patient's treatment plan.

Brainstorm

Users can link their account with their family members.

There should be a function for users to fill out and save their insurance information.

Accessibility consideration

History appointment

Users should have a file upload function to upload their medical history files.

It would be beneficial for users to have a function that monitors their dynamic health conditions.

The hierarchy of the functions should be considered.

File management function

How should we ensure privacy concerns?

Should there be a payment function?

The appointment page should offer the clinic's information and services.

The main function of the software is to help users break the information gap in medical treatment

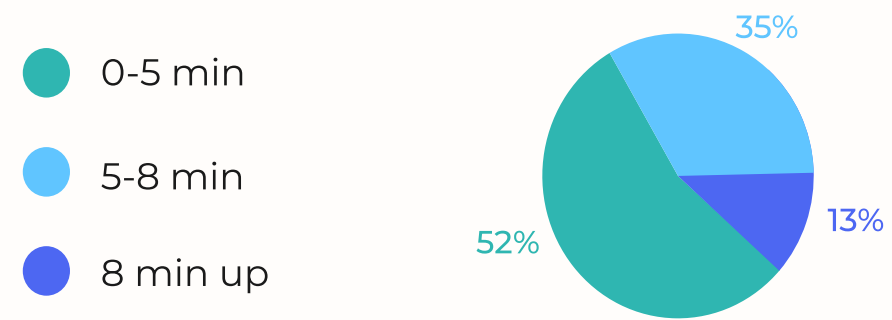
We tried to incorporate as many medical services as possible on the homepage for users to pick.

The file function on the patient page will help both the patient and the doctor better manage medical documents.

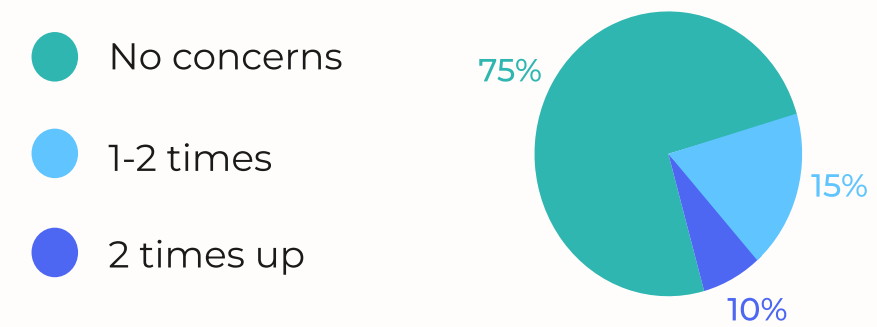
UX Research Part

Quantitive Research

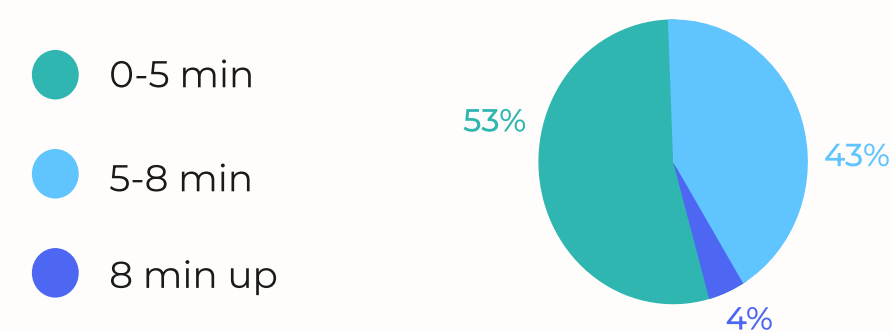
How long does it take you to finish the goal of make an appointment?



How many times you felt frustrated when you check the health track screens?

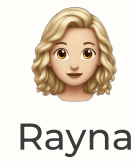


How long does it takes you to find your patient's visit preferences?



Qualitative Research

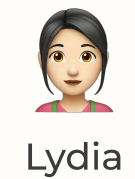
Do you like our connected family account function?



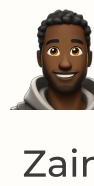
"I like this function, it's easy for me to check my family member's health situation."



"I like this function, but I have some privacy concerns."

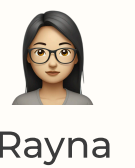


"I think it can help me a lot. I wish this function could be grounded so that I can remotely check my grandparents' health situation in China."

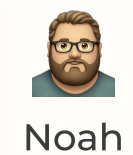


"It's great, but I have a question: what should I do if I see an alert about my family's abnormal data? Will there be a button to notify the doctors?"

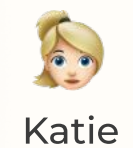
Do you think the Medisync office system is useful?



"I believe this function is effective as a medical student. However, I think there is a hierarchical issue with the system. For example, the functional needs of nurses, doctors, and hospital administrators are different, but the current system mixes these functions together."

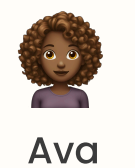


"Yeah, I think it works. I like the file management function."

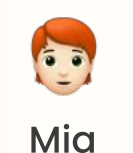


"I think it's great. It's easy for staff to manage the appointment slots, but there is too much information in the patient profiles."

Is it easy to make an appointment on MediSync?



"I think it's pretty easy for me to finish this task. I like the design that allows me to choose to upload my medical profile during the booking process."



"Great experience, but I think it would be better if I could make an appointment directly with the doctor."

Research Findings

Users find the hierarchical issue of the provider system, the function for the different roles of medical industry are mixed and cause confusions.

Users find it difficult to access their past medical records from a long time ago because there is no search bar to assist them in conducting searches.

some icons on the calendar in appointment page are hard to understand

While reminders and notifications were appreciated, some users mentioned they were either too frequent or not timely enough.

Users feel much better when the saved clinics and doctors to be shown in the homepage.

Adding the family account permission option can effectively address privacy issues.

After adding annotations to the icons, the users' drop-out rate decreased significantly.

Example Comparison

The tip bar will indicate the current selected catalog.

A calendar layout will be easier to click and less confusing.

Not enough contact information

Different icons were applied here, representing the basic info of the clinics.

The profile section placed here overlapped with the navigation bar.

Before

After

Before

After

Before

After

The section was a little bit clustered and people asked the question - "where is the hospital"

We designed this button for users to change their locations or set the place they'd like to visit. The default clinic selection will depend on the current locations.

vague information

we made the changes to the explanation of available seats so it will be easier for users to make an appointment.

Too many medical services on the homepage for users to pick. It added the challenges for users to choose.

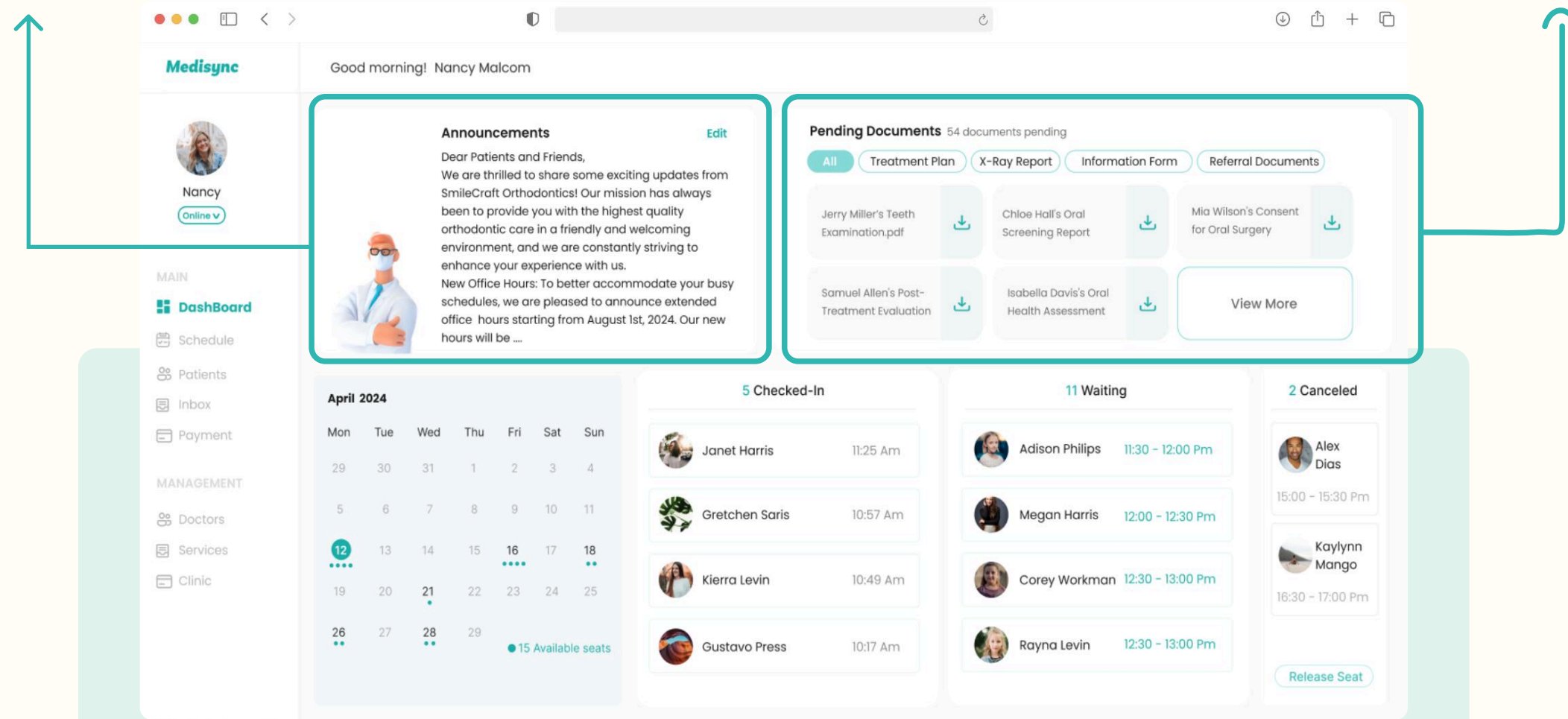
We refined the interface of the catalog here, to make it clearer for users to browse.

Example Comparison

Announcement bar was applied here to receive and send important messages.

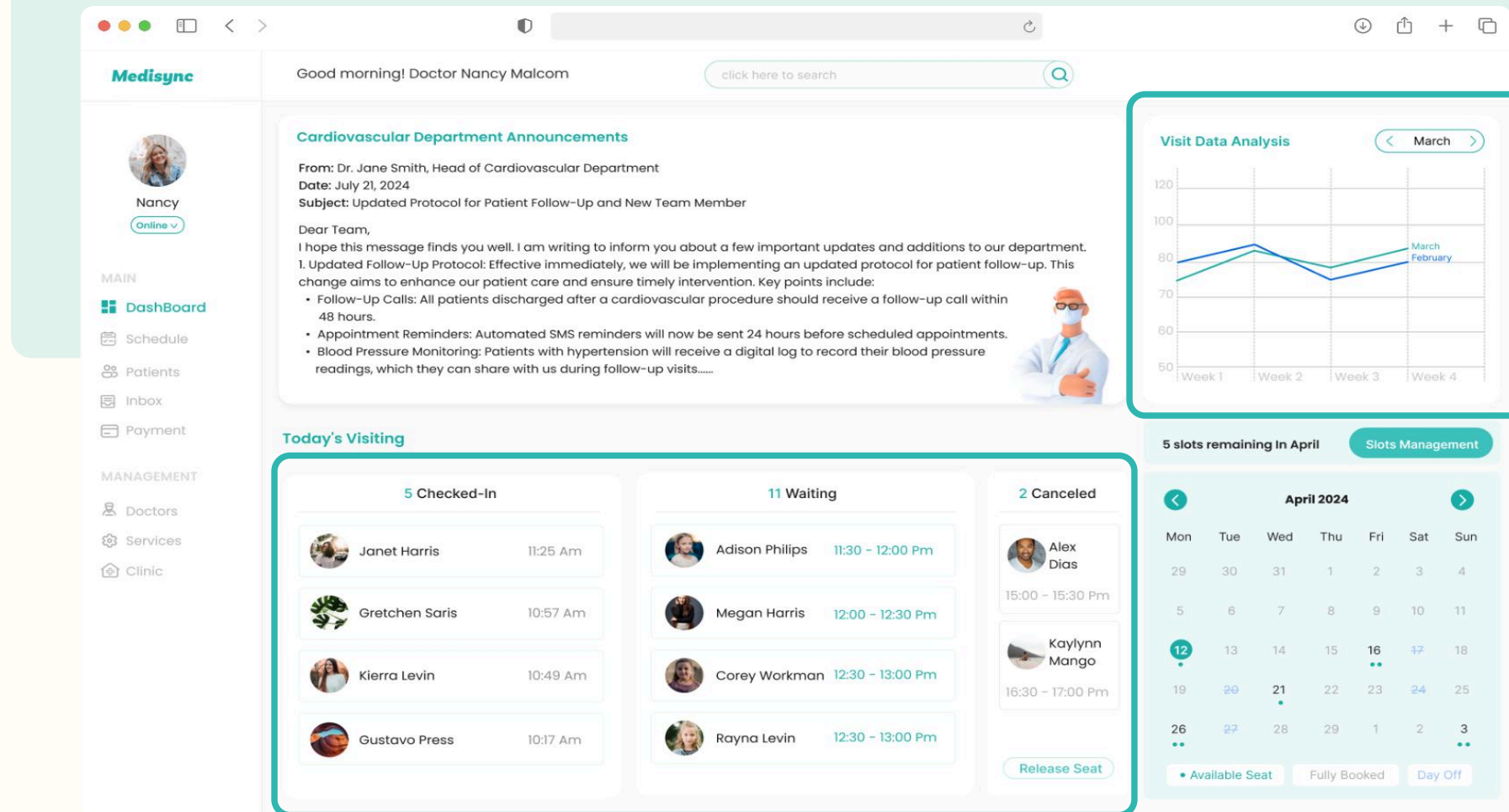
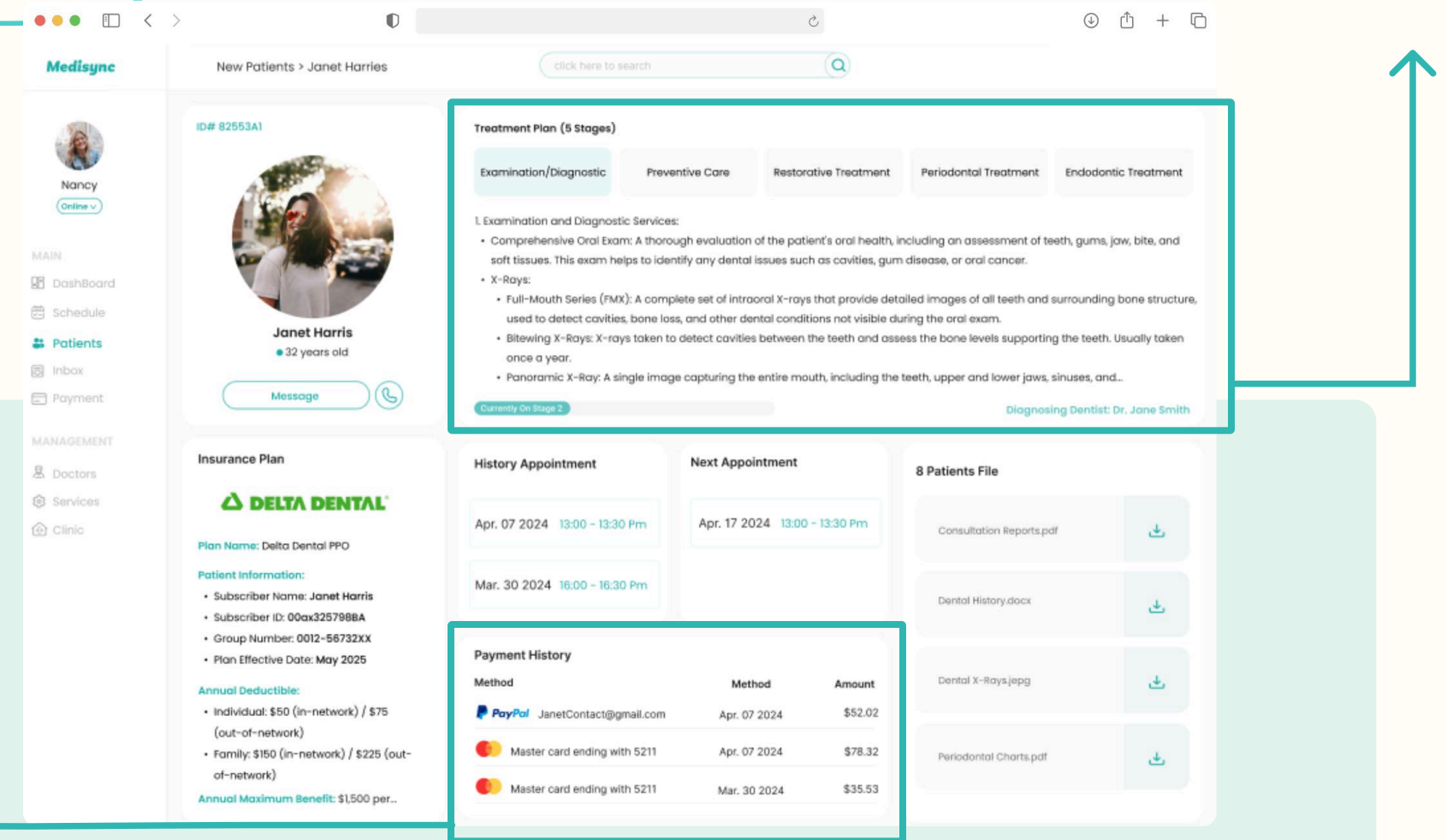
It's helpful to have a pending document reminder, but a separate page for doctors to manage patients' medical files would make the dashboard clearer.

We designed a treatment plan feature to help staff quickly understand the patient's medical situation. However, it may raise privacy concerns.

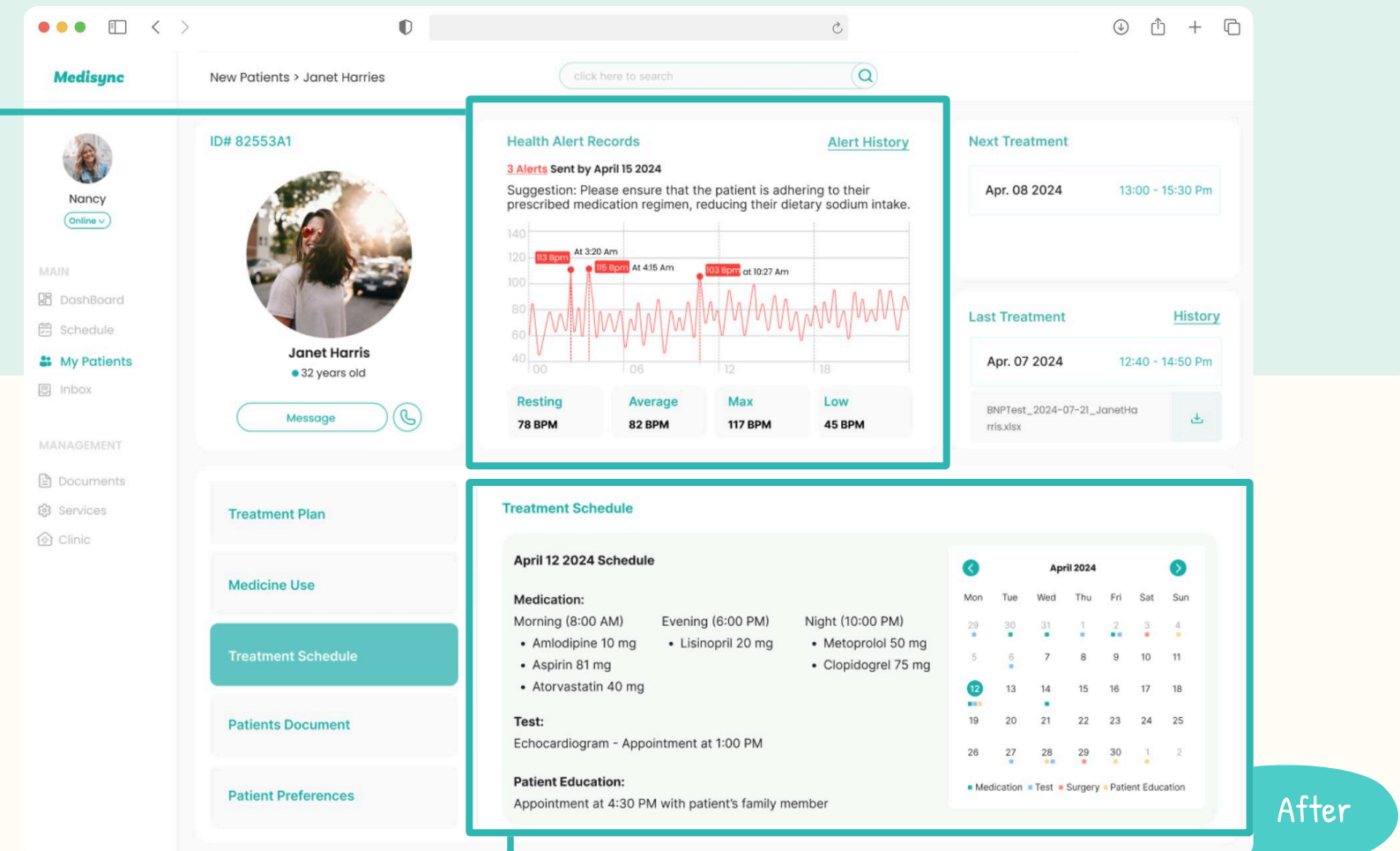


Before

The payment history function should be only showed to the administrative Staff due to the consideration of privacy.



Dashboard page of office system



After

A clear and straightforward way to understand the patient's visit status.

We added a health alert function here to allow doctors to understand the situation of their patients dynamically.

We included the treatment schedule here instead of the visit history to help doctors more effectively manage treatment dates.

High Fidelity Prototypes

reminder for next appointment

Address change

Insurance upload when booking appointment

Message

Medical history

Alert quantities report

Visiting check

Patient health alert records

Abnormal Record Upload

Sizzle

“ Where Every Dish Begins ”

A place for you to share and find recipes and plan your meals.



Sizzle is a user-centric recipe sharing social platform where users can create, record, and share their own recipes.

Individual Project Duration

Feb 2024 - Jun 2024 (4 months)

My role

UI designer / UX researcher / UX writer

Special Features of Sizzle

Fridge management

Users can build their fridge within the app, users can adjust the food quantity in this function, the system will recommend recipes based on the fridge.

Homepage

The swipeable poke card form offers a fun and effective way for users to pick their interested recipes; the ingredients at the bottom will enable users to judge whether the recipe is cookable.

Trending Page

Trending page offers the popular recipes over the week, users can browse popular recipes here.

My Contribution For Sizzle

Solo Project

/1

- Identified project statements.
- Conducted interviews with 25 People to gather feedback, identified demands and pain points, created personas based on Interviewee's responses, and brainstormed ideas.

/2

- Create wireframes and low-fidelity designs.
- Conducted qualitative and quantitative research methods in the testing phase with each iteration.

/3

- Create a sitemap that visualizes the product's hierarchy.
- Create a user flow diagram

Project Problem Statement

The current recipe software on the market is often chaotically organized and inserted with massive advertisements. Users need to spend a lot of time choosing suitable recipes to cook. Moreover, it's also a challenge for users to solve their food-waste problem when cooking.

Project Goal

Sizzle aims to provide a healthy, comprehensive, and well-defined ecosystem for those who are passionate about cooking or eager to learn. It allows users to share their creations and foster communication. Sizzle also aims to help users solve their food-waste problems and seamlessly integrate their daily routines with the internet, promoting an efficient and worry-free lifestyle.

Research summary

We used both qualitative and quantitative techniques to conduct this research. The research consisted of user interviews, usability testing sessions, and surveys of our potential users. By grasping the pain points and user preferences from the research, we processed the recommended improvements and enhanced the user experiences.

User Pain Points

Based on the Persona, We found out those pain points that users faced

Recipes are not organized, tagged very well. The boundary on each catalogs are usually vague.

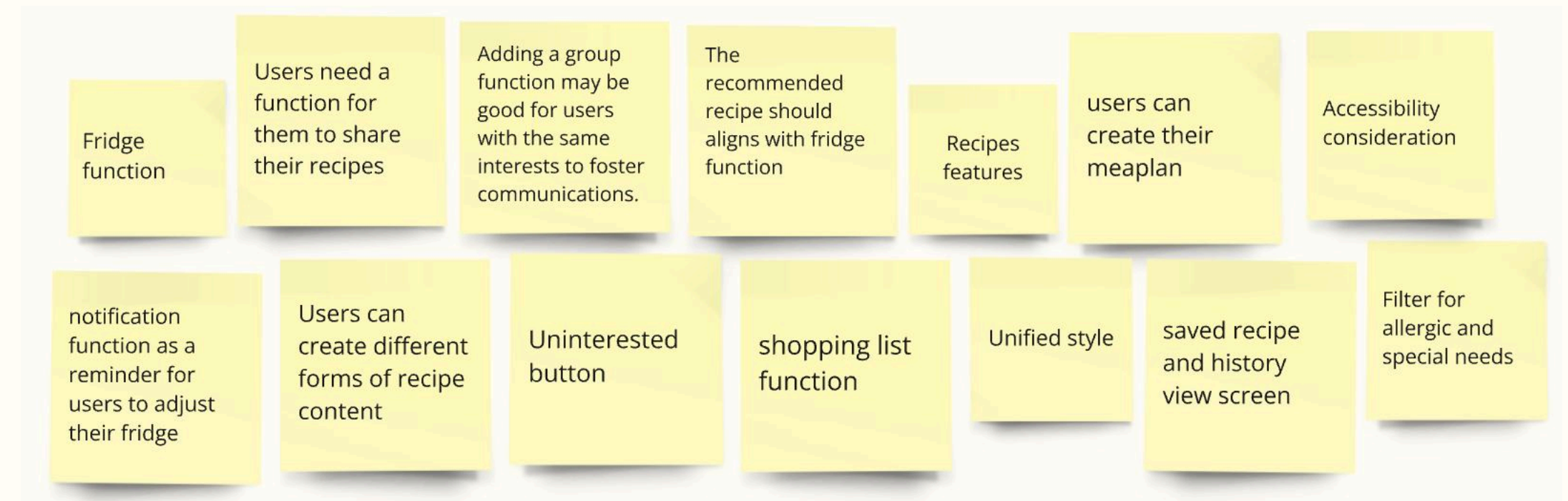
Users struggle to find a recipe that aligns with their daily routine and lifestyle.

Most of the platforms are lack of interactivity, users find hard to have interaction with others.

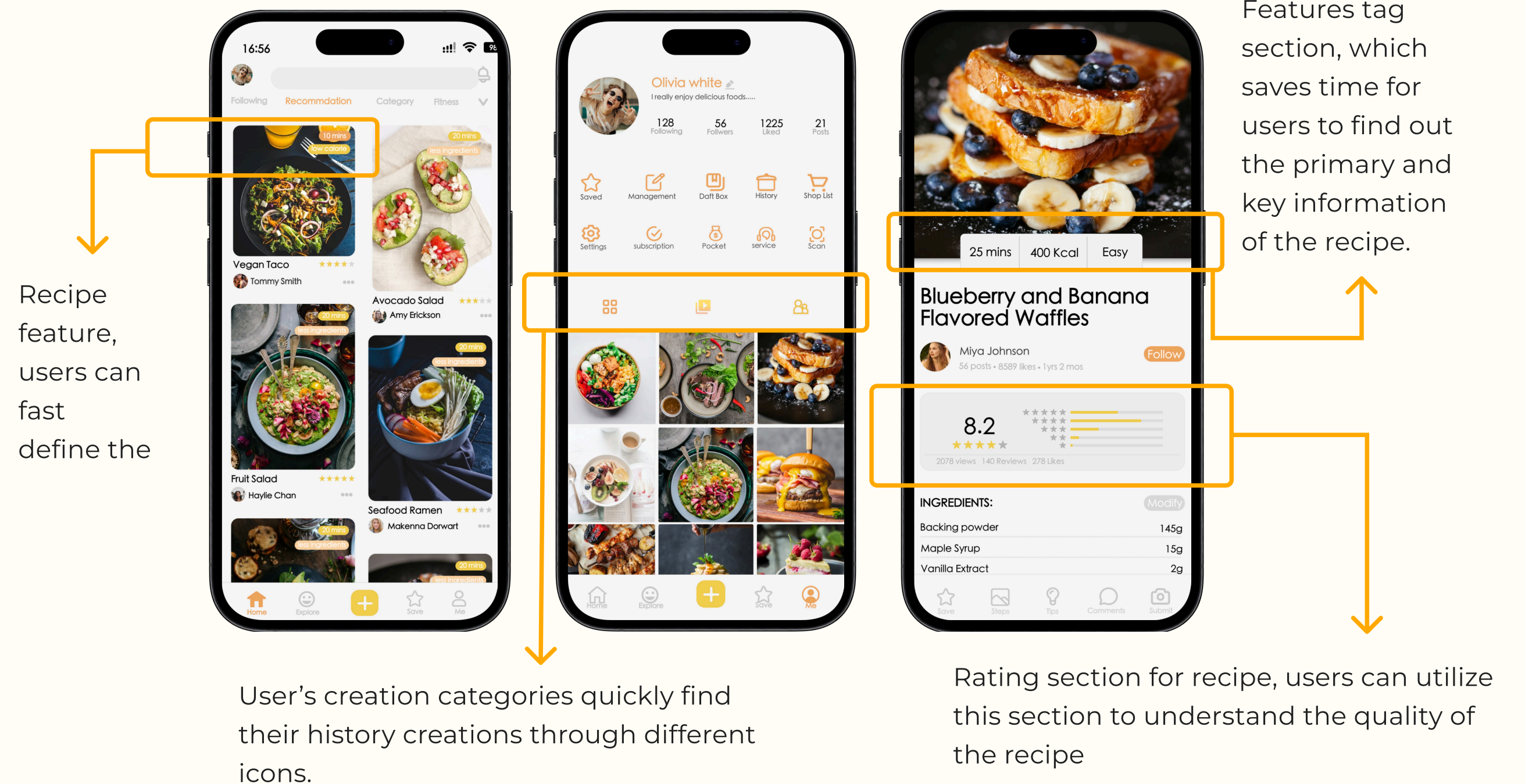
Options for recipes are normally limited for users, and usually not beginner-friendly due to the lack of the consideration.

There are excessive advertisements and fragmented information, making it difficult to find correct information.

Brain storm



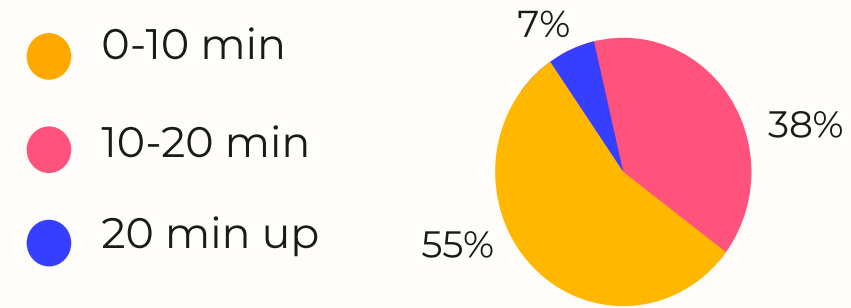
Low Fidelity Design



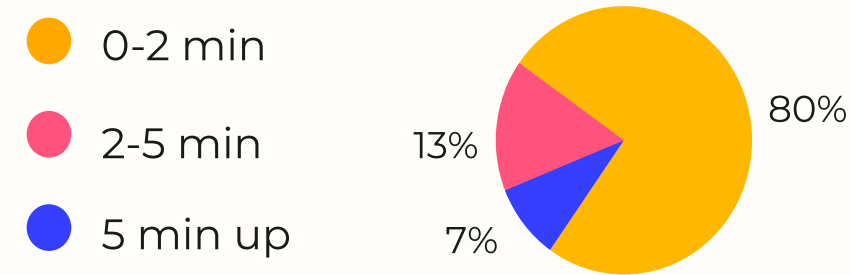
UX Research

Quantitative Research

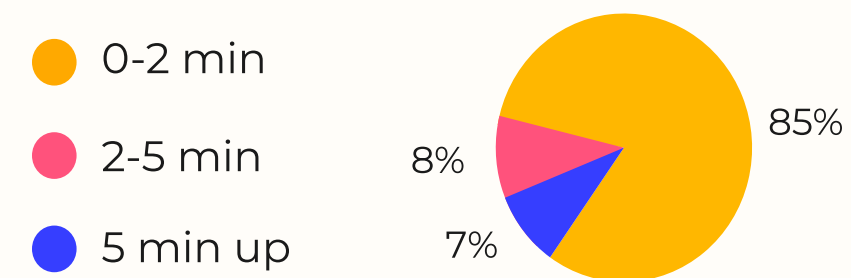
How long does it take you to finish the goal of create your own recipe?



How long does it take you to find the history saved recepies?

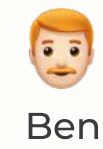


How long does it take you to find the fridge function?

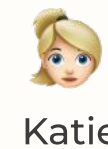


Qualitative Research

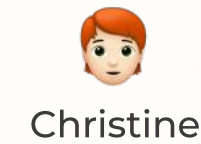
How will you feel the experience to find the saved mealplans



"It's so easy to find the saved meal plans. I like the way they're separated from the saved recipes, so I won't mix them up."

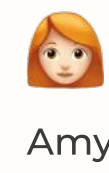


"It's pretty easy to find my history saved meal plans."



"Overall, it was a good experience, but I'm curious why I can't see my in-progress meal plan in my saved meal plans."

How will you think the function of fridge works with your life routine?



"It can enable me to find the most suitable recipes that align with my life routine and habits."



"It's cool, but it's kind of hard for me to find this function within the app."



"It's so easy to manage the food in my fridge, and I believe this function can greatly help prevent food waste problem."

Research Findings

A clarified UX writing plays an important role that affects users' task completion rate

Making the UX writing to be concise yet clear allows users to more efficiently achieve their objectives when using the app.

Users like the swipe way of the homepage, it's easy and and creative to use.

Some directional texts in the app are excessively verbose and occupy significant space.

A well-organized and clearly prioritized layout of features makes the distribution of page content more coherent, allowing users to swiftly access essential information.

Users are pleased to observe icons replacing text as guidance, but the spacing is too cramped, often inadvertently redirecting users to other screens.

Comparison

Too much information here, with not-well organized layout. Users hard to find useful information at first peek.



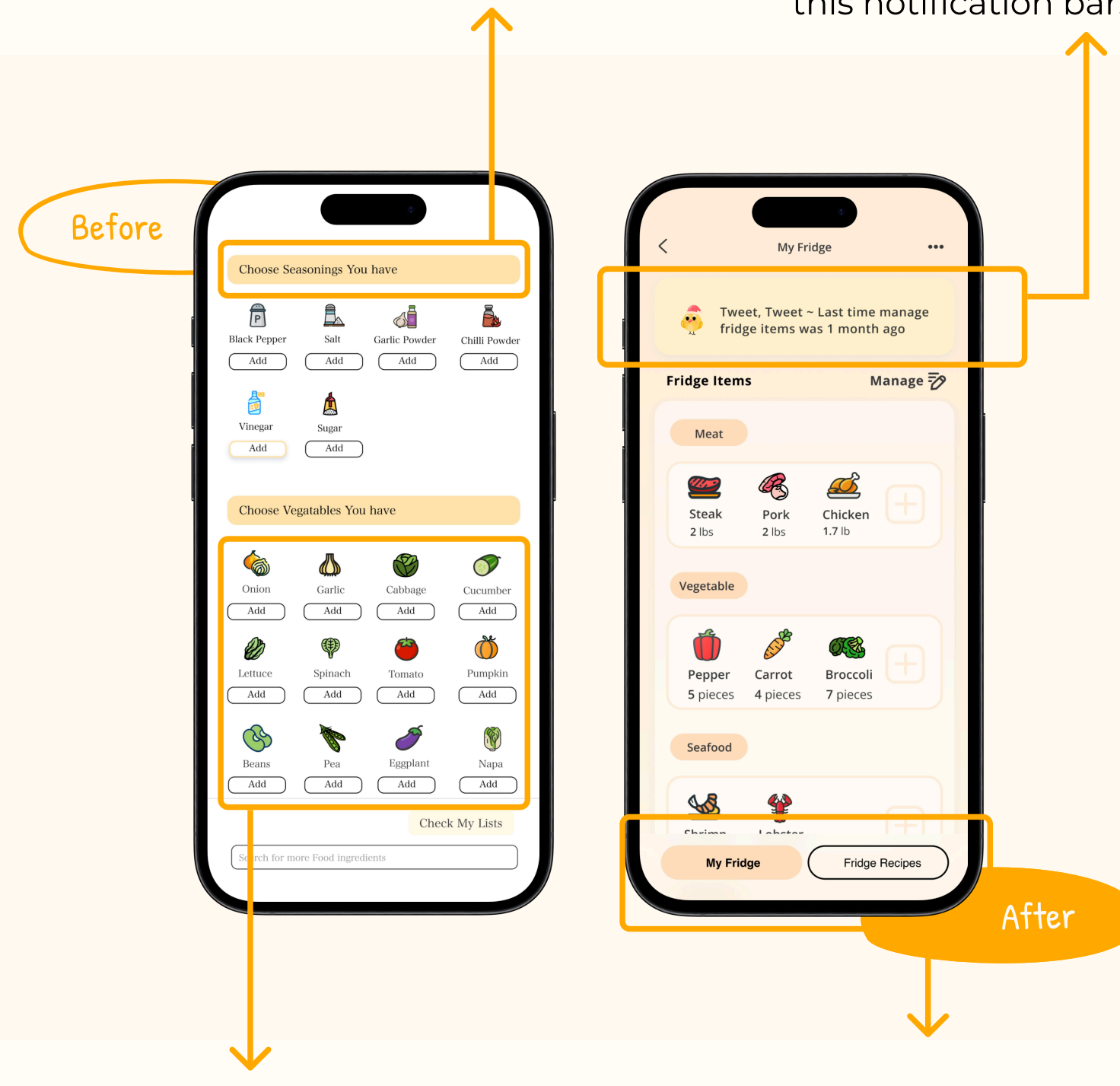
More accurate navbar

After

The navigation bar is too narrow to click, it's not friendly for some users.

A reminder was applied

Redundant UX writing



Users can understand the last time they managed their fridge through this notification bar.

After

The color is too bright for users to browse, and the button size is too small, accessibility consideration should be applied.

Unified size with simple color, better outlook, better understanding.

Redundant UX writing

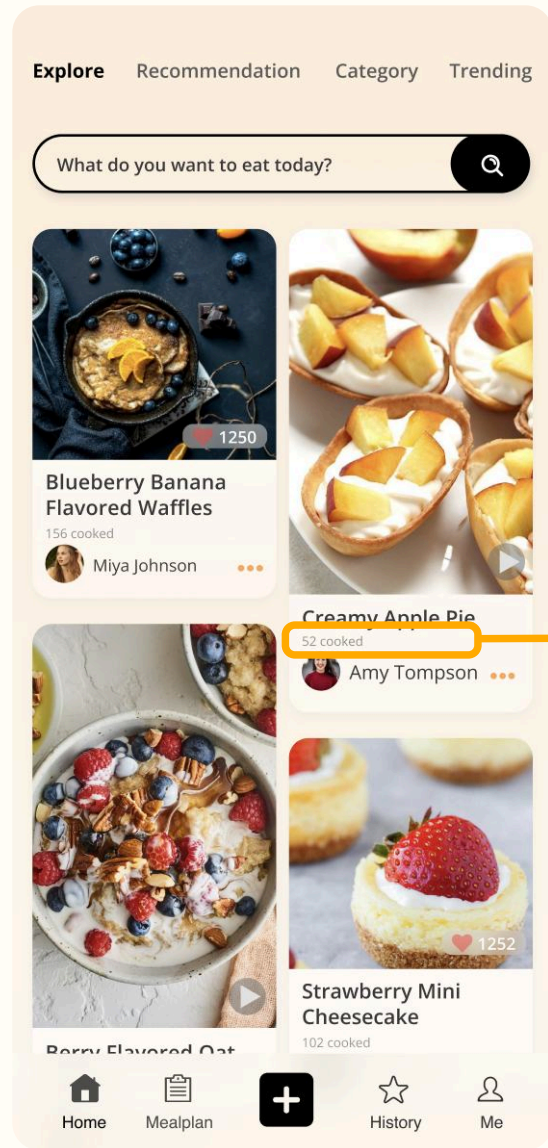


A few simple icons are here to help users understand the key information about this meal plan.

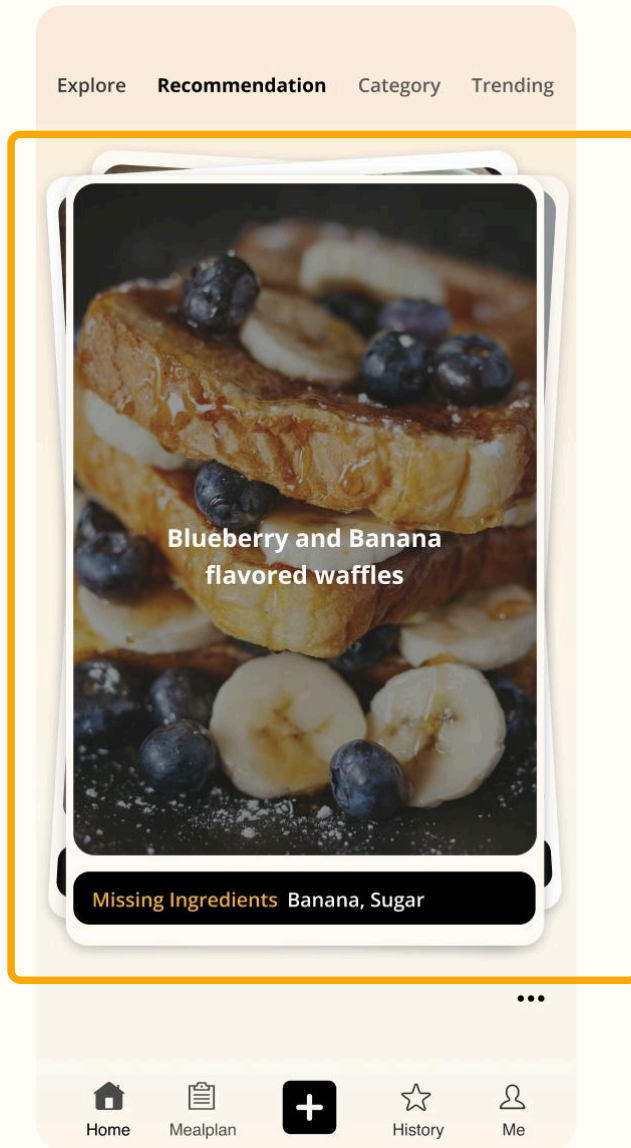
After

The layout of the information was placed chaotically and messy. Meanwhile, the size of rating icons looks very small

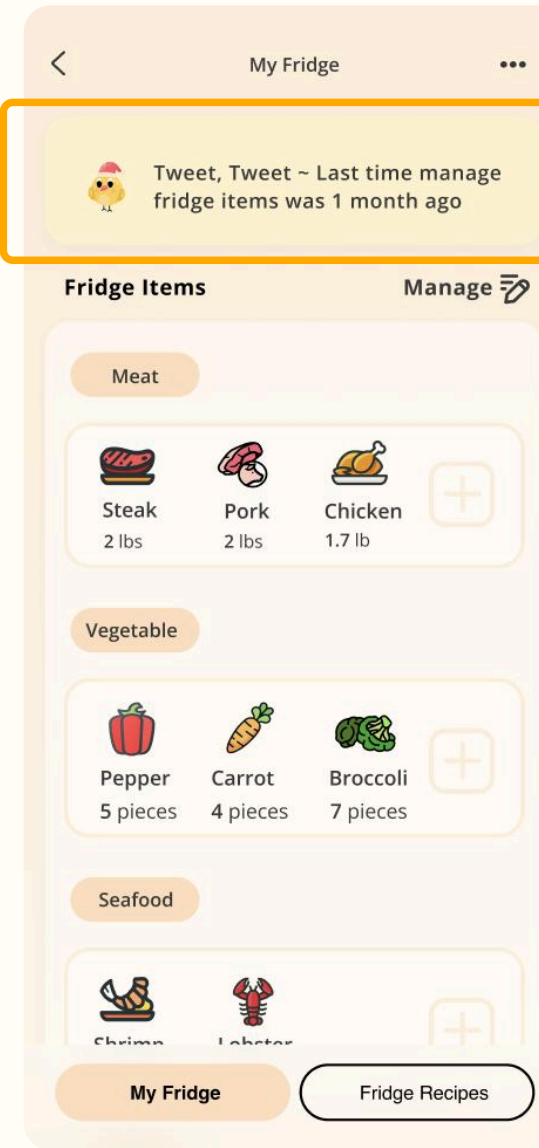
A sub-navigation bar was applied here so users can quickly check the information they want.



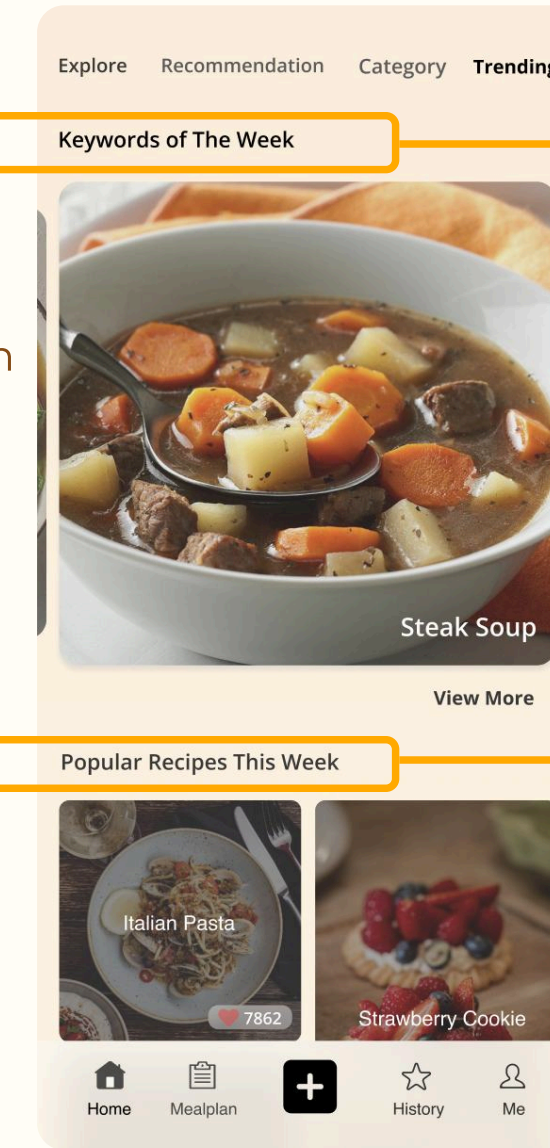
Cooked time of recipe, the popularity of recipe



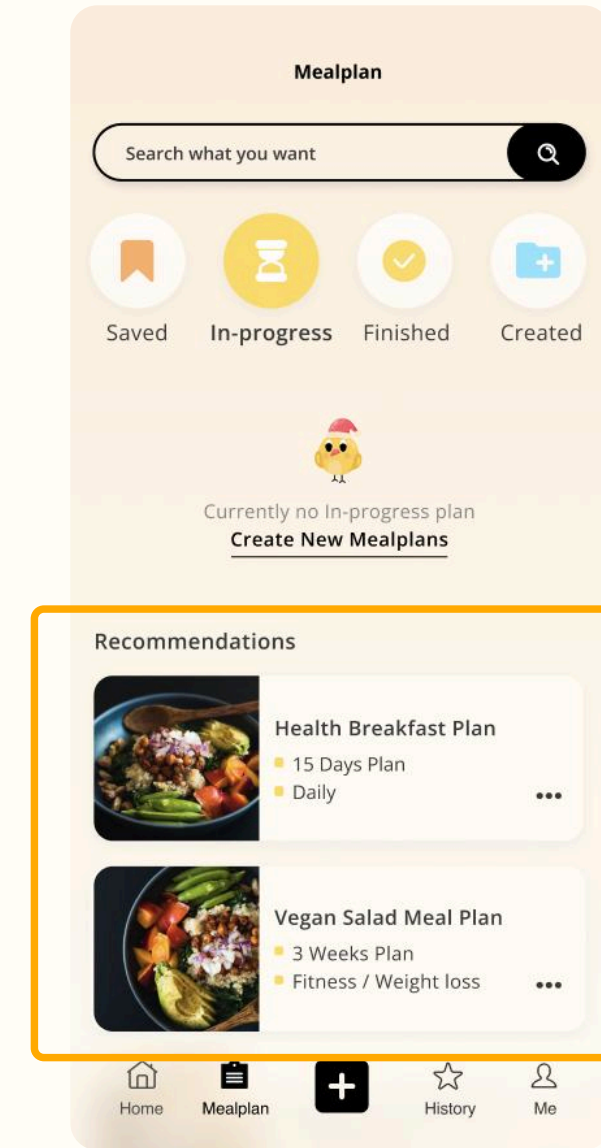
Swipe forms for users to browse recommended recipes, easy and fun to use.



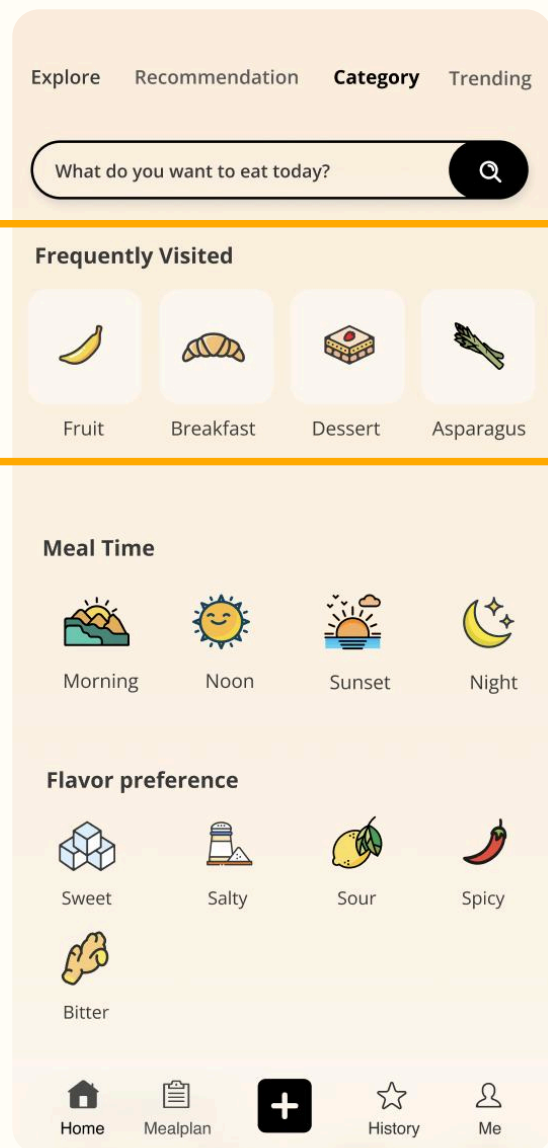
Notification bar



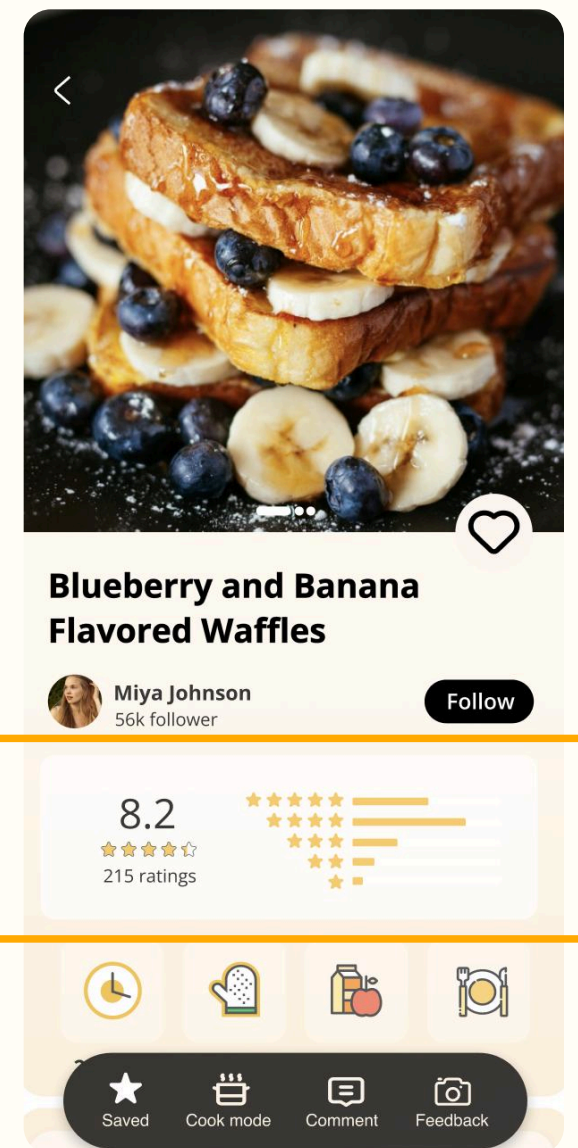
Trending search keywords



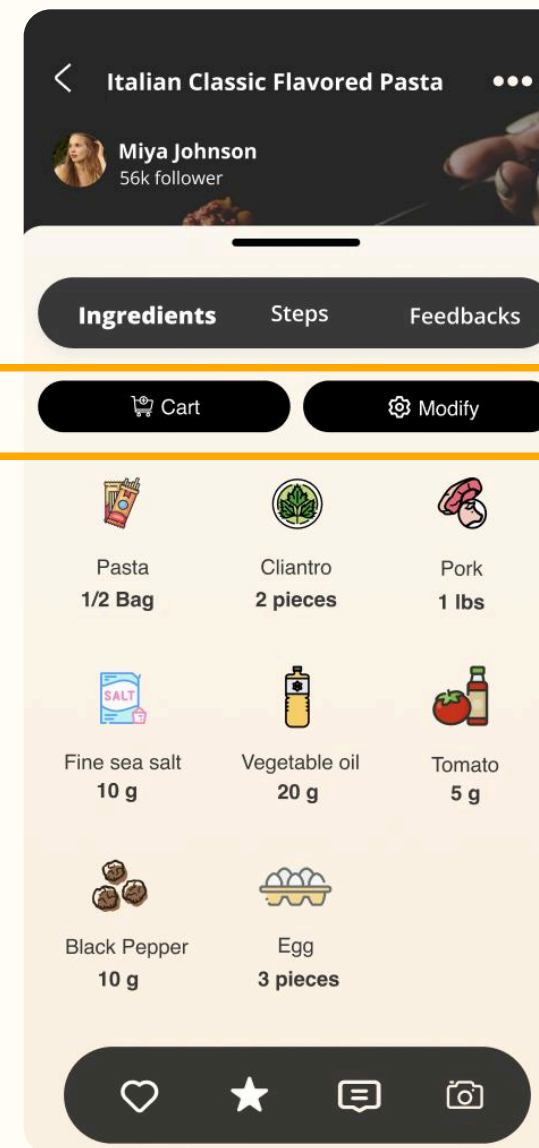
Recommended meal plan



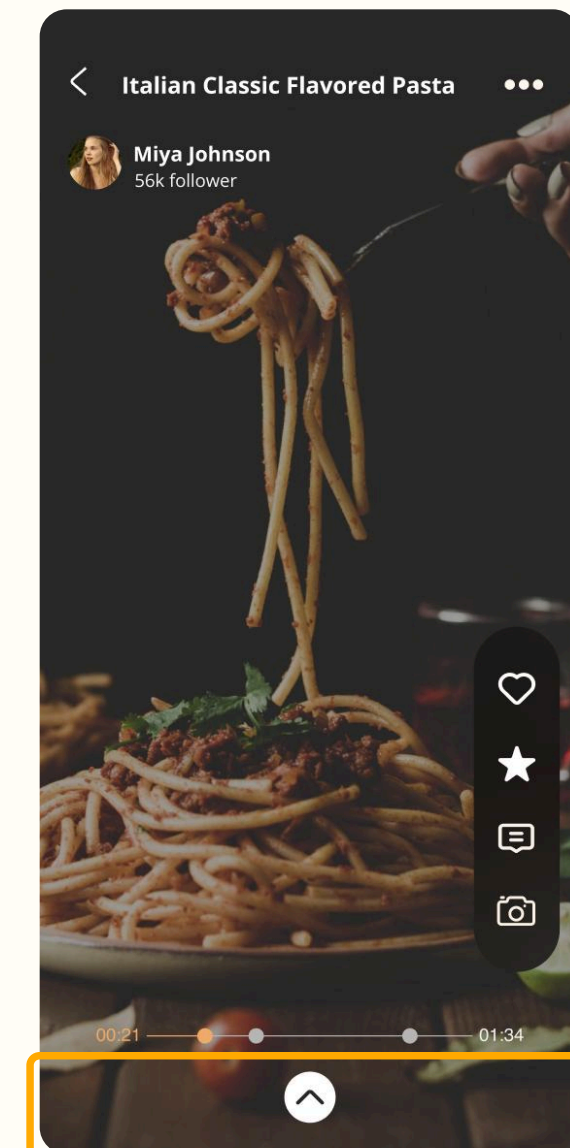
Frequently visited category



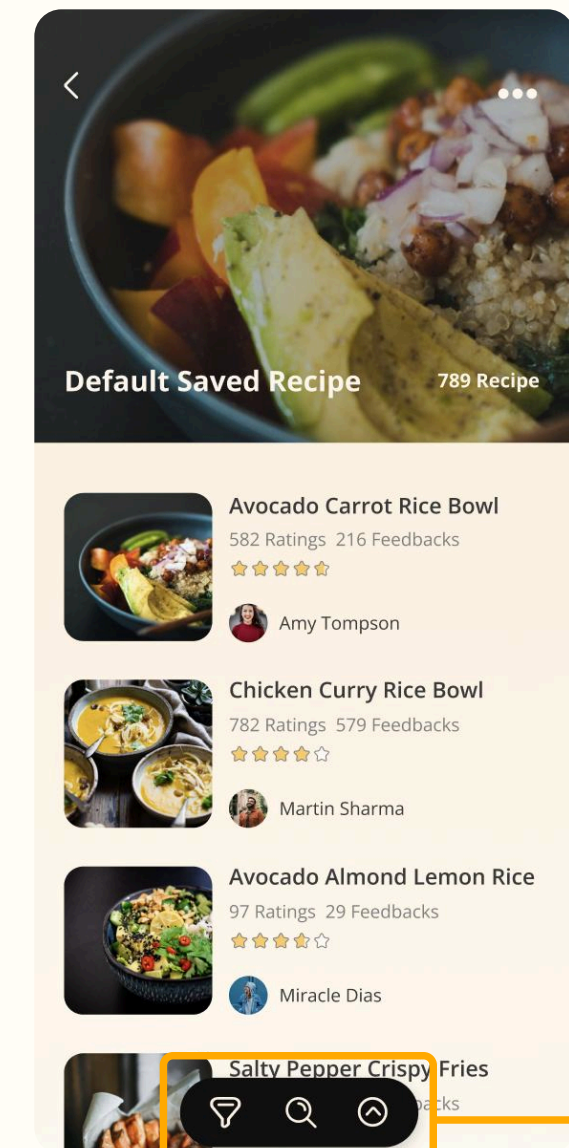
Rating bar



Add Ingredients to the shopping cart or modify the quantity of ingredients



Video recipe, users can slide to read detailed instructions.



Filter/ Search/ Back to top



Academix

“Navigating Knowledge, Shaping Futures.”

A modern class picking system, make your college life easier

- Academix focus on providing personalized course recommendations and search services for students. We help students find the most suitable courses for them. Getting input from other students and professors to provide the most valuable information to help students succeed in their academic journey.

Design duration

Nov 2023 - Feb 2024
5 months

Team Member

Jiani Huang
Kaijie Fu
Qianlang Chen
Kevin Song

My role

UI designer
UX researcher

Responsibilities

illustrate design ideas, visual design, user experience research, wireframing, testing, collect feedbacks

My Contribution For Academix

/1

- Conducted interviews with over 100 University of Utah students to gather feedback on the registration system.
- Identify demands for new features, and understand the most important features and critical issues in the current system.

/2

- Collaborated closely with developers to ensure the successful delivery of the first edition, aligning the design with technical requirements.
- Collected feedback from test users, analyzed their input, and implemented multiple iterations to enhance usability and address user needs effectively.

/3

- Designed the initial user interface for Academix, focusing on creating an intuitive and user-friendly experience.
- Collaborated closely with developers to ensure the successful delivery of the first edition, aligning the design with technical requirements.

Project Problem

Course Selection Uncertainty

Students face uncertainty in course selection, struggling to find classes that match their

- Academic needs and preferences
- Personal lifestyle and schedule
- Learning style and difficulty level

The current registration system is

- Lacking accurate course descriptions
- Time-consuming to navigate
- Missing student feedback integration
- Disorganized and complex

Project Goals

Data-Driven Platform

Academix aims to create a comprehensive solution by

- Building an intelligent course matching system
- Providing detailed course information
- Integrating student feedback and experiences
- Streamlining the registration process

Key objectives

- Enhance course selection accuracy.
- Improve student satisfaction.
- Reduce registration complexity.
- Create a supportive academic community.

Product Competitors

University of Utah

Strengths

- Integrated with school system
- Direct access to accurate information
- Manual assistance available

Areas for Improvement

- Disordered information format.
- No real-time feedback system
- Complex navigation process.

Coursicle

Strengths

- Simple, well-organized design
- Efficient information access
- User-friendly interface

Areas for Improvement

- No evaluation features
- Slow information updates
- Limited functionality.

Rate My Professors

Strengths

- Large review database
- Real-time tracking
- Extensive user feedback

Areas for Improvement

- Outdated design.
- Limited to evaluations.
- Insufficient course info.

Interview Goals

- Understand the challenges students face when they register courses.
- Understand how long does it take for students to finish their course enrollment process.
- Understand how often do students drop courses.

Interview Questions

- What's your biggest challenge when registering courses?
- How long does it take you to complete the course registration process? For example, 3 days or 1 week?
- Do you usually drop registered courses? If so, what influences your decision?

User Pain Points

- Users have to navigate between pages continuously for course selection, requiring them to view accurate course information while making their selections. This problem consumes a significant amount of user attention and increases the chances of errors before completing their objectives.
- Users find it hard to select courses that align with their life routines and time preferences.
- Almost all information is presented in text format, which is not user-friendly for individuals with reading difficulties and also makes it more difficult for users to comprehend the information.
- Outdated design and fragmented information gathering prevent users from accurately discerning information.
- The school's course recommendations for students often include prerequisites that students might not fulfill, making it difficult for them to enroll in the right courses that interest them.
- Users are unable to evaluate courses or view information about courses from other users, resulting in a lack of interactive experience among users.

User Interviews

01 Navigation & Feedback

The current layout presents challenges in navigating seamlessly between various components and features. For instance, when transitioning from the class page to the registration section, users encountered difficulties discerning whether the class registration and enrollment were successful.

02 Catalog Complexity

Users faced challenges in comprehending the various class catalogs, particularly finding it difficult to distinguish between different catalogs under General Education courses. The distinctions are intricate and not easily memorized.

03 Search Experience

Users frequently encounter challenges when searching for specific classes, especially when confronted with courses for which they haven't met the prerequisites. Exploring alternative algorithms is imperative.

04 Content Clarity

Users face difficulty discerning the specific reasons to register for a class, struggling to identify points of interest and comprehend the actual content. This echoes a recurring challenge from the old-school registration system.

What's Our Solutions

Layout Enhanced Navigation

The current layout presents challenges in navigating seamlessly between various components and features. For instance, when transitioning from the class page to the registration section, users encountered difficulties discerning whether the class registration and enrollment were successful.

Catalog Simplified Organization

We've introduced explanations for different catalogs and supplemented them with example classes. We've strategically relocated catalog names to a less prominent position and emphasized graduation requirements for improved clarity.

Search Smart filtering

We've enhanced user experience by defaulting to hide unqualified classes from search results. Additionally, we've introduced a ranking system that organizes classes based on both past interest and current grade.

Content Rich Information

We've implemented a tag system showcasing keywords from student comments and featuring top-rated reviews. Additionally, we've enriched the course introduction with a concise overview and accessible syllabus.

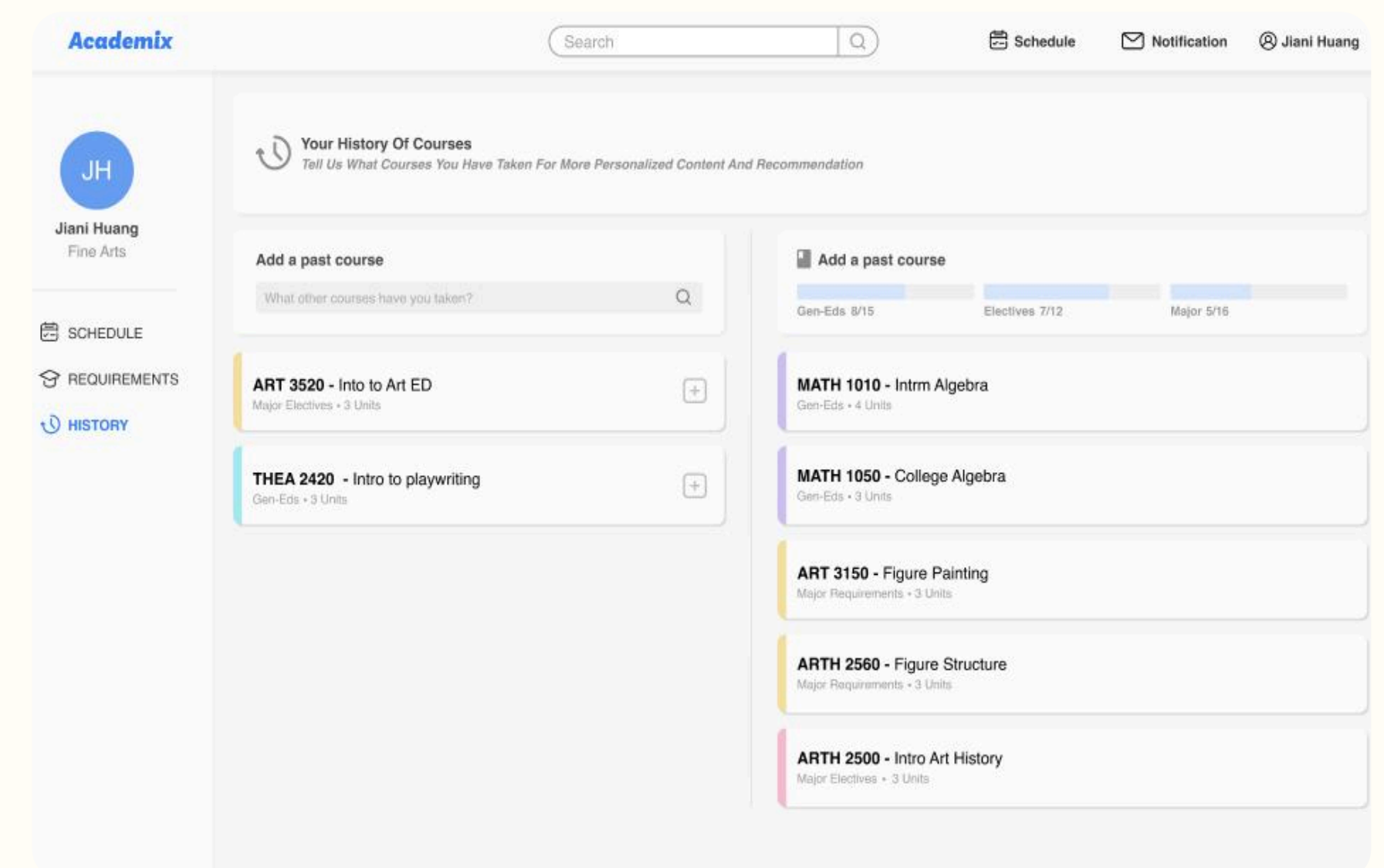
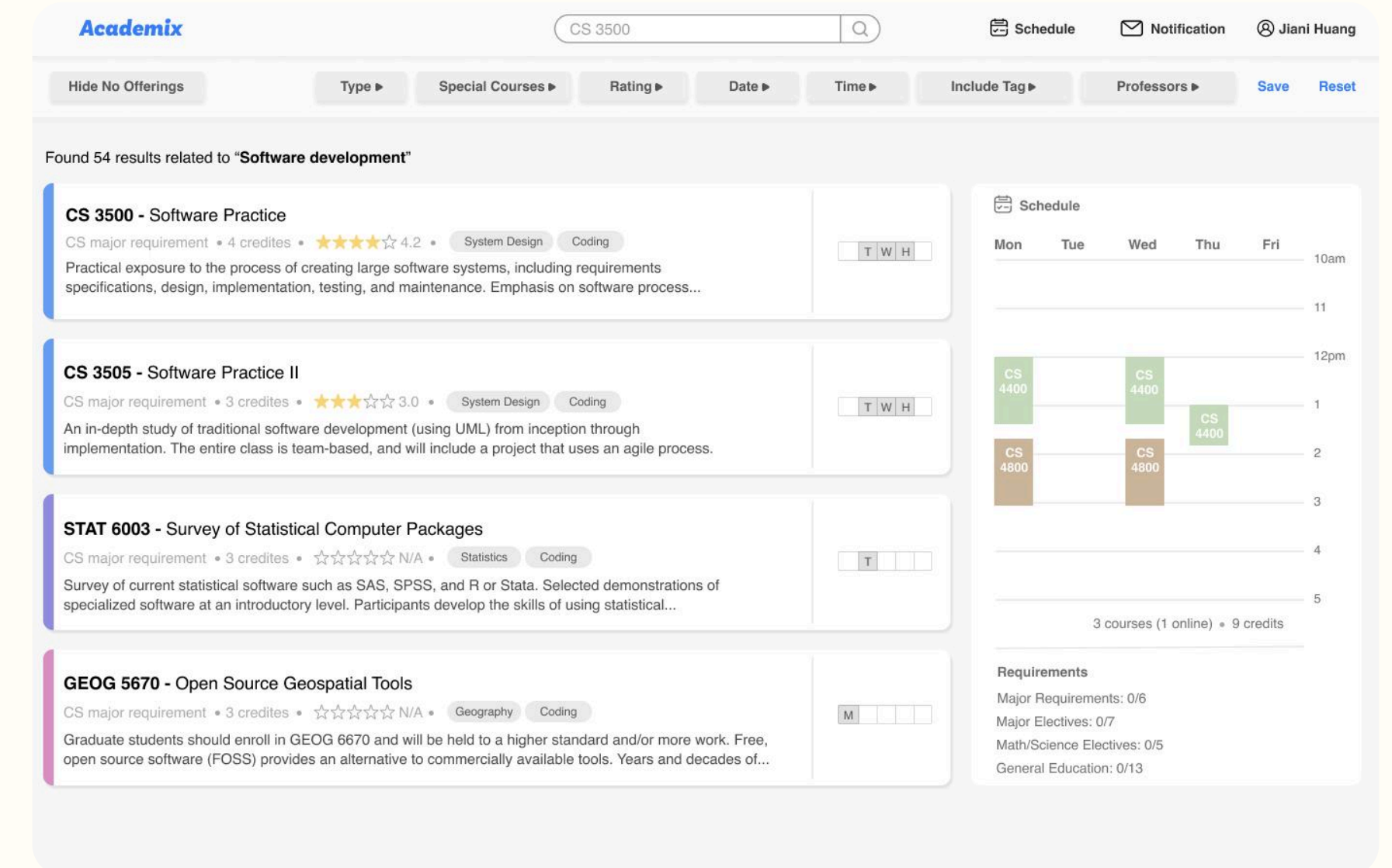
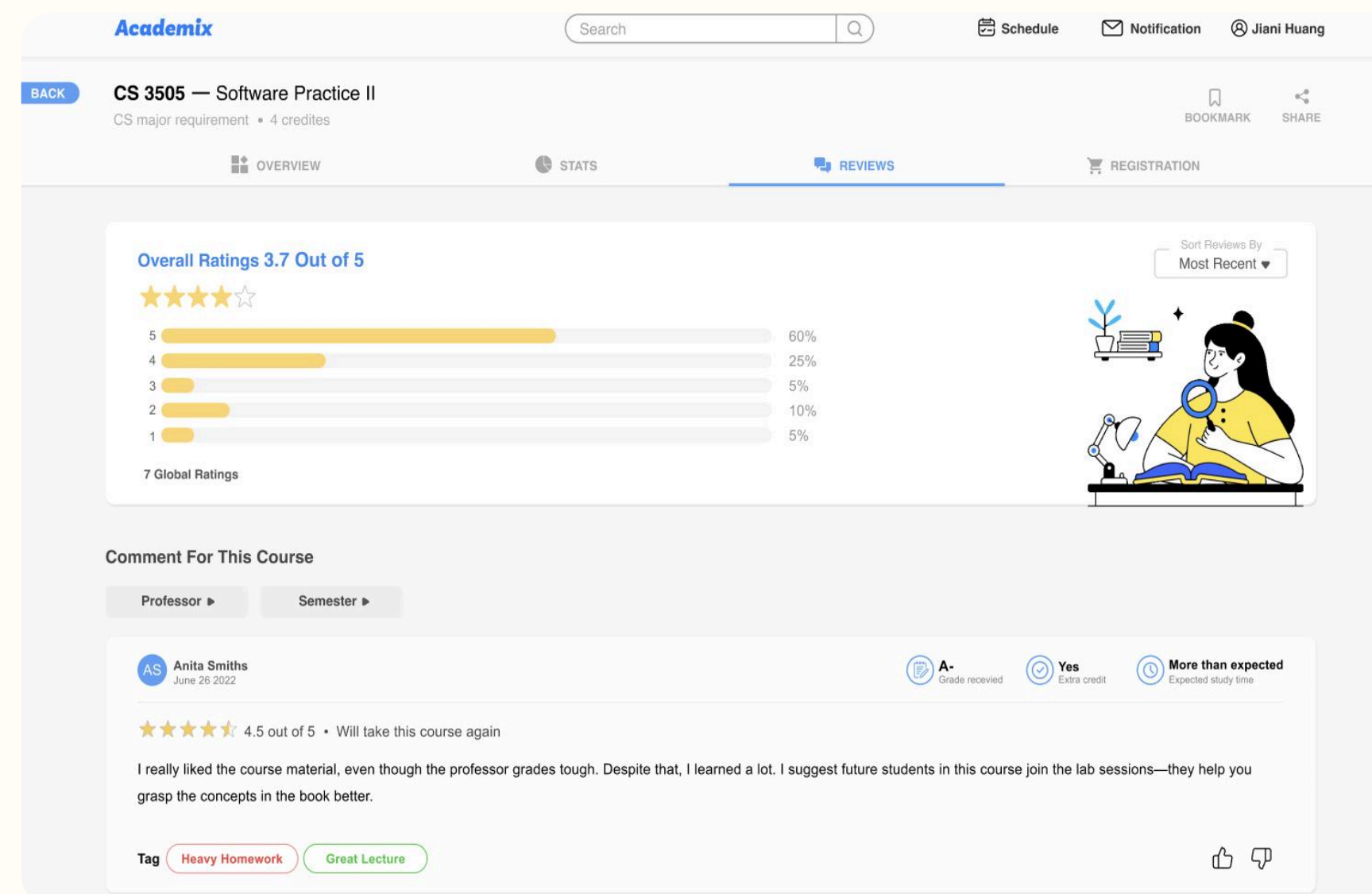
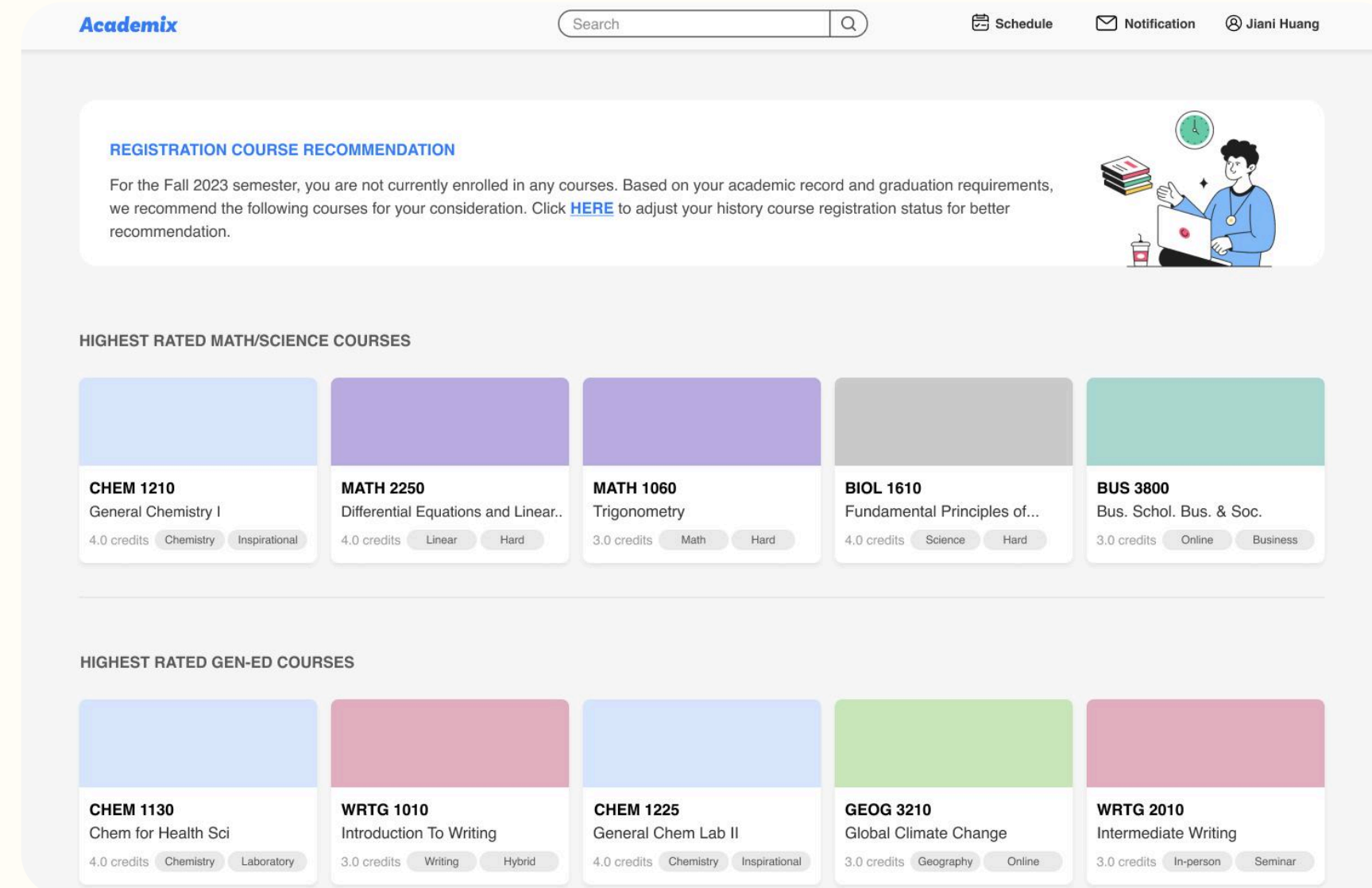
Features

/1 **Recommendation screen** - According to the data input by the user, we will customize their recommendation page based on their major, daily routine, and preferences, finding the most suitable courses for them, enable students growth more professional.

/2 **Search Page** - We have developed several features in the search function. Students can use filters to select courses based on their preferences. The schedule chart on the side will assist students in better managing their schedules and prevent time conflicts when registering for courses.

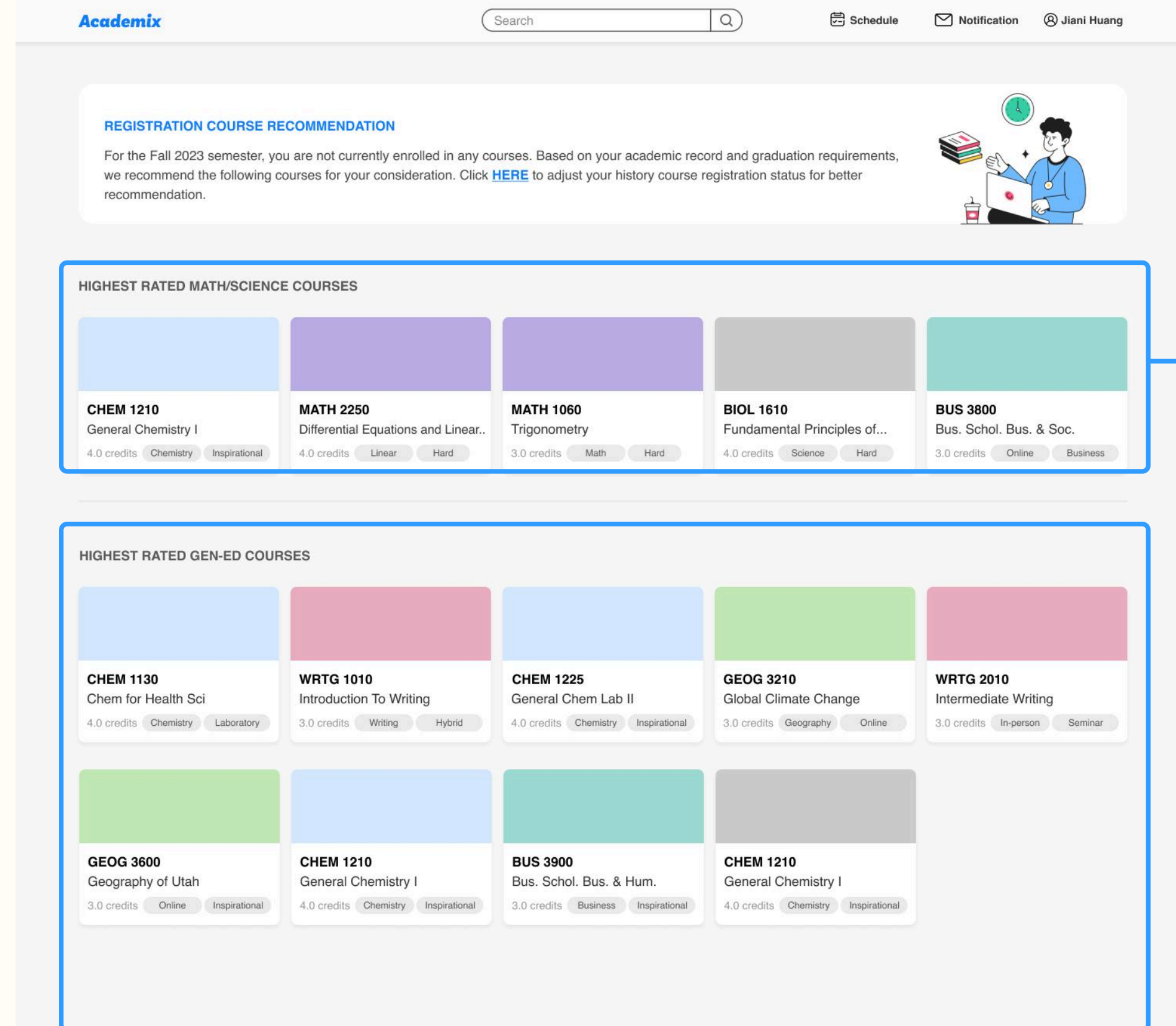
/3 **User Feedback** - We have implemented a feedback system that allows students to provide feedback on the courses they have taken. This feedback is used to improve the course recommendation system and make it more accurate.

/4 **User profile** - In the history section of the user profile page, students can add or edit the courses they have already taken. This allows them to better track their registered courses and receive more explicit course recommendations.



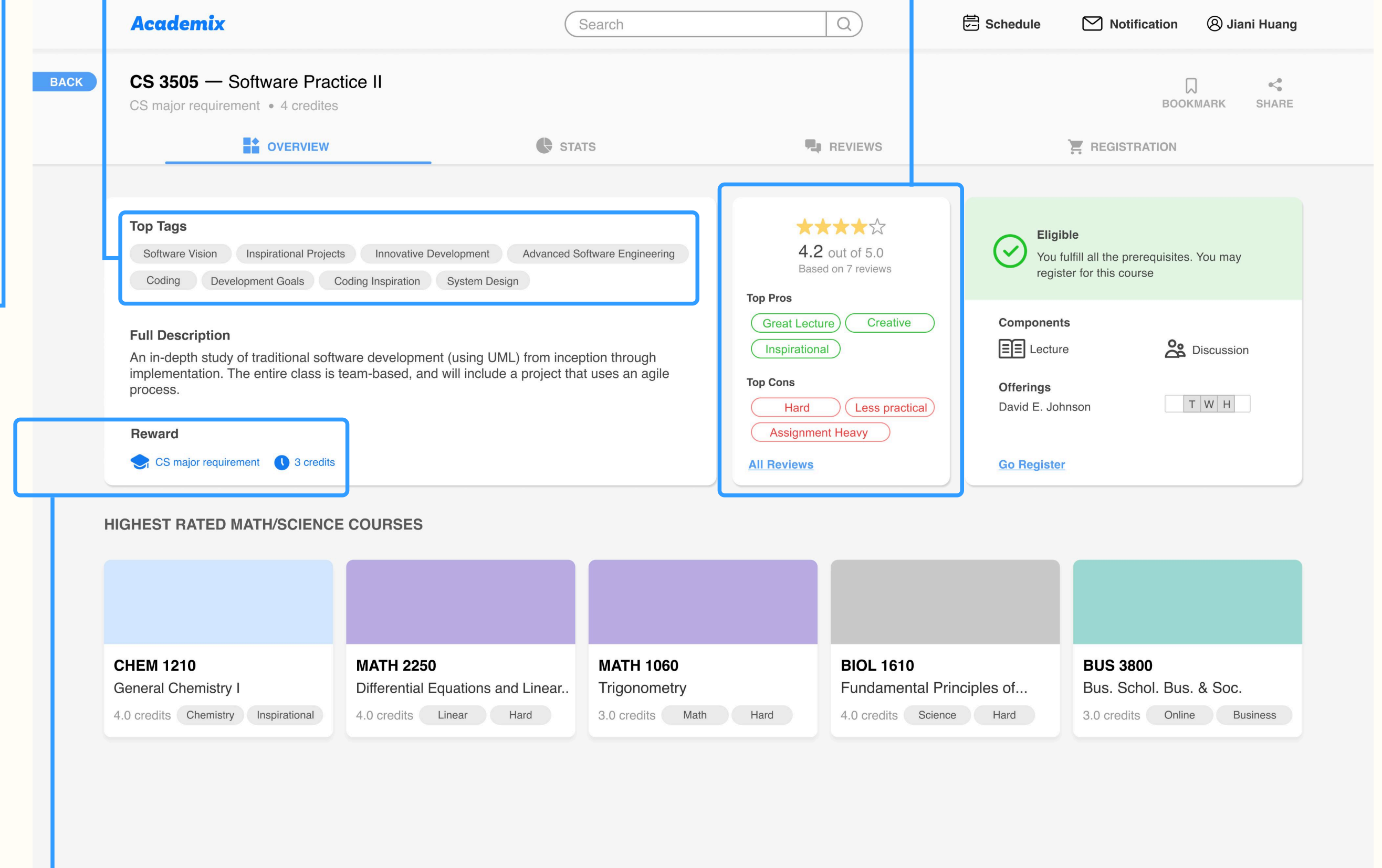
Hi-Fi Prototypes

According to the student's major and preference, we applied recommendations that fit their needs and were tailored to their professional growth.



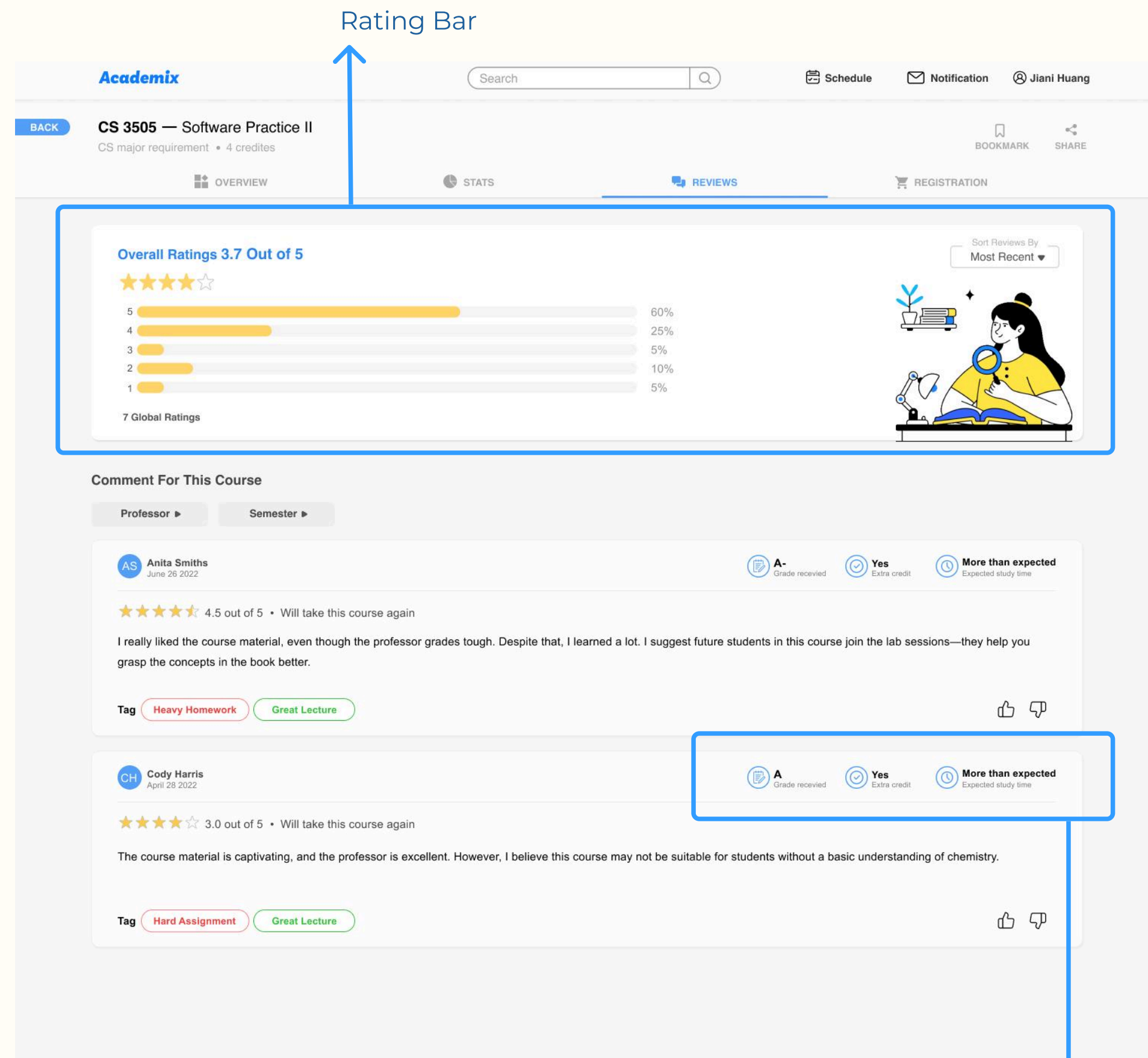
We use different colors that represent different genres of course.

Pinned tag section enable users to fast understand the course features



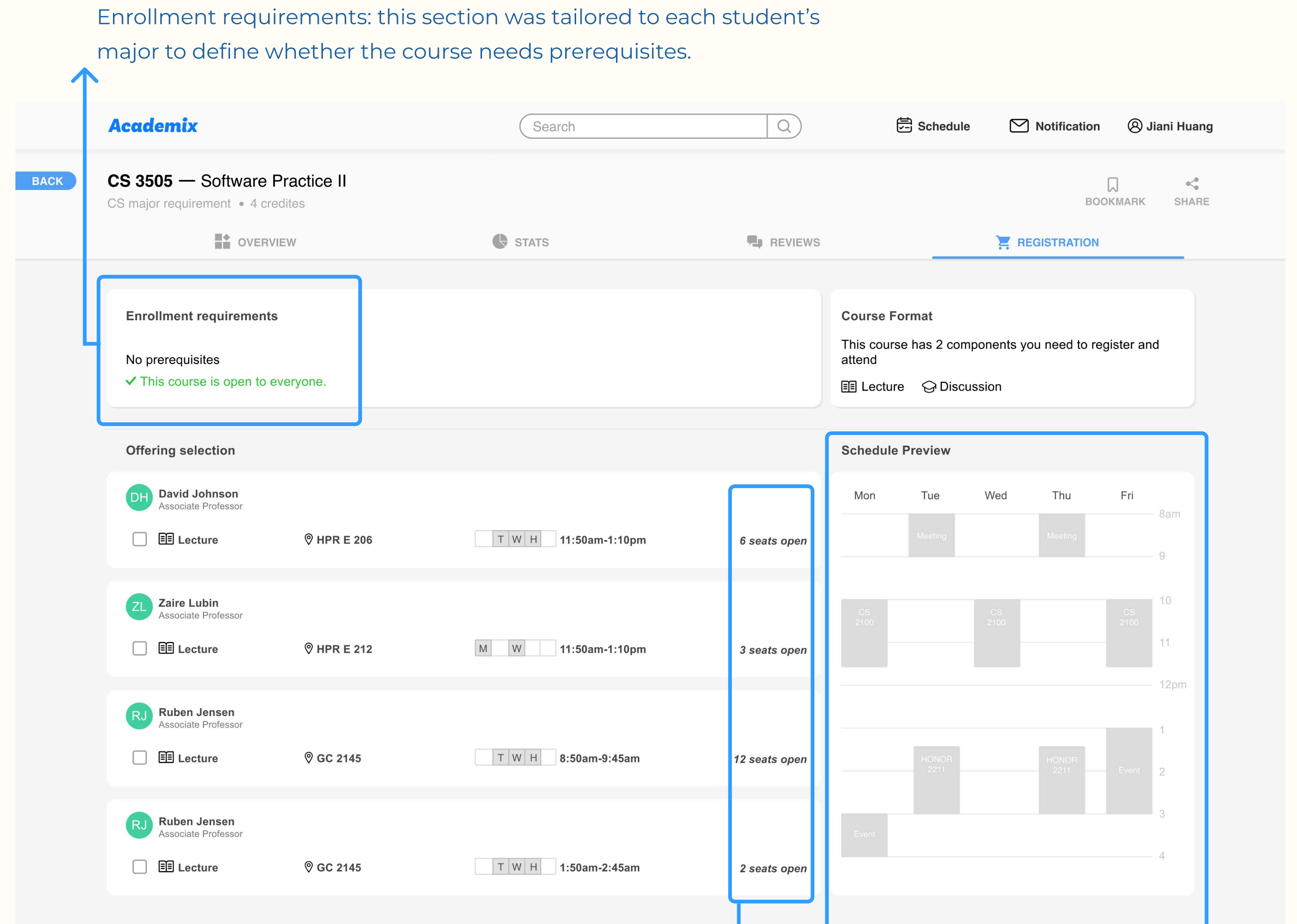
Reward section indicates the key information of course

Hi-Fi Prototypes



Rating Bar

The feedback features



Enrollment requirements: this section was tailored to each student's major to define whether the course needs prerequisites.

Indicates how many seats left when registering

The visualization of time schedule will allow students register for courses that better fit their daily routine.

My Art Work

Time duration (2023-2024)



Redwood National Park 2023
Oil on wood panel 10" x 10"



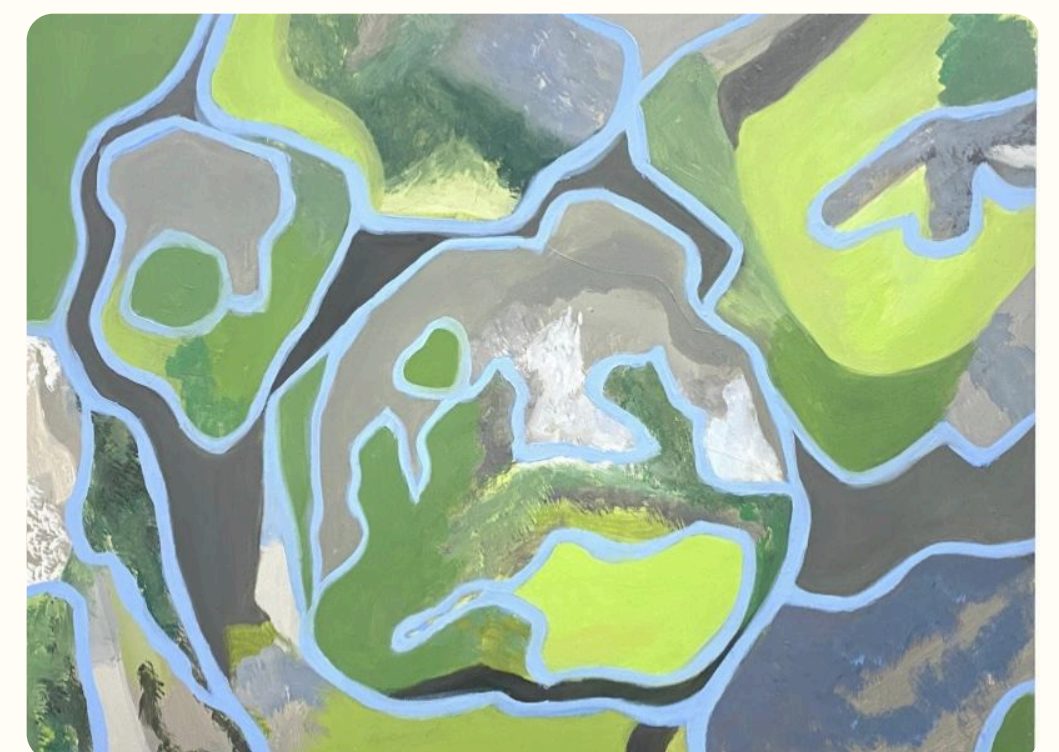
On That Moment 2023
Oil on canvas 31" x 31"



Sea Waves 2024
Vinyl Installation 30" x 30"



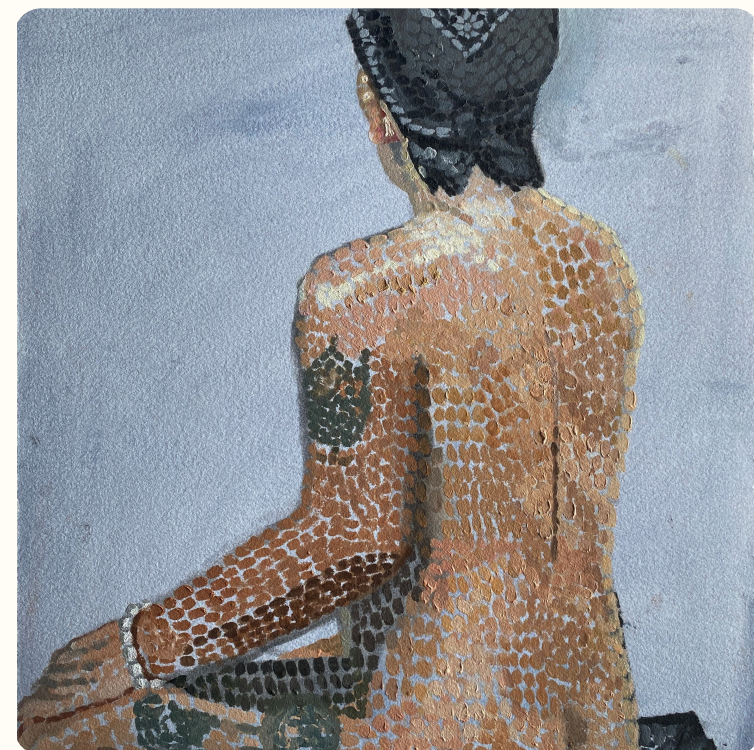
Kid's Portrait 2023
Oil on Paper 12" x 16"



Moss 2024
Oil on Wood Panel 12" x 16"



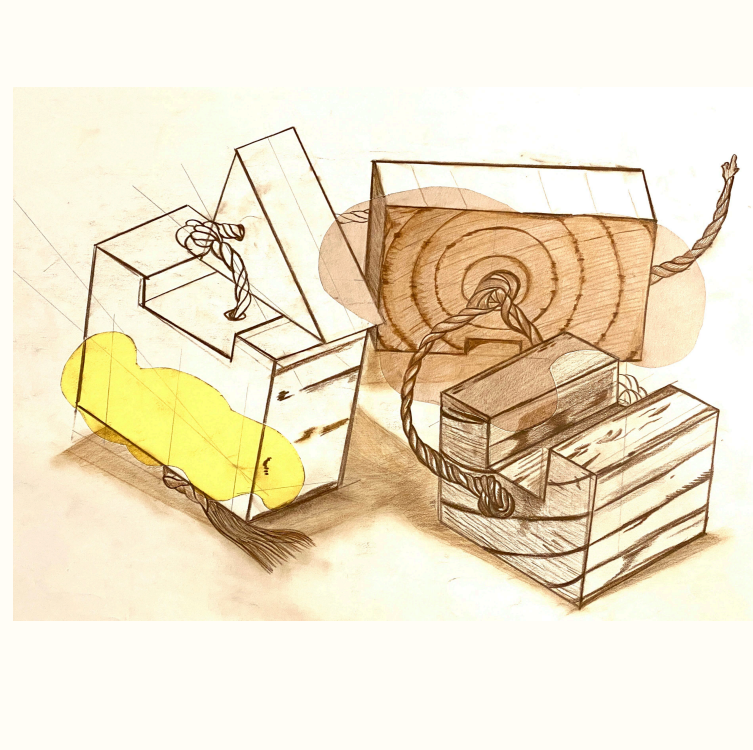
Ballerina 2023
Oil on wood panel 12" x 16"



Broken brushstroke Portrait 2024
Oil on Paper 12" x 16"



Toys 2024
Prisma Color on Paper 36" x 24"



Studio Drawing 2024
Mixed Media on Paper 36" x 24"



Drawing 2024
Mixed Media on Map 27" x 23"

Thank You for Reading

