



NerdFind

# **HCI 430: PROTOTYPING & IMPLEMENTATION**

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## RESEARCH

We conducted an interview using the contextual inquiry method to understand the key points about users who actively make use of e-learning and tutoring services. From the data we collected we grouped the common frustrations, goals, and personality traits into personas. The Personas helped set boundaries for our design process, what choices we should make and what we should avoid.

# REASEARCH

**Methods:** Contextual Inquiry

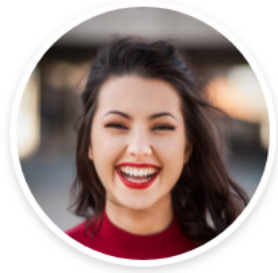
**Findings:**

- Distinct user groups, learners and tutors
- Learners want to find quick tutoring sessions
- Tutors want to make extra money
- No variety of tutors to choose from
- Budget constraints are common among learners
- All participants preferred quick scheduling

**Design Implications:**

- To have minimal but important information
- Filtering options to search out compatible tutors
- Customizable settings
- Easy access to local tutors

# PERSONAS



**Carrol, Jenny**

Math Professor

26 | F  
Single

Chicago, IL

## Personality Traits

Disciplined

Outgoing

Inspired

Quick Learner

## Bio

Jenny is currently a math teacher at a local high school, who is currently looking for a side job to tutor to earn some extra cash. She seeks ambitious students to help out.

## Frustrations

Jenny sees learners struggling with Mathematics; she realises that it isn't The student's fault.

## Goals

She wants to help learners with math problems.

## Expertise

- Ph.D Multivariate Calculus
- Certified math tutor
- Certified gymnast

## Appealing Designs

- Yeezy sneakers
- Red colour
- Instagram
- SnapChat



## Smith, John

High School Student

17 | M  
Single

Chicago, IL

### Personality Traits

Passionate

Social

Good conversationalist

### Bio

John is a high school student who is currently in his junior year. John has the ACT coming up in a few months but he is struggling in math. He knows if he doesn't study his math more the end result can be that he might score poorly on the math section for the ACT. If that happens he might not get into the schools he wishes to attend. John wants to find a math tutor to help him understand the concepts more. John goes on the "NerdFind" app and proceeds to search for a tutor.

### Frustrations

- Budget constraint
- Location constraint

### Goals

Understand concrete concepts  
to prepare for ACT

### Expertise

- ACT
- Trigonometry

### Appealing Designs

- Easy to navigate
- Easy to schedule/reschedule
- Easy to pay





## Choi, Lee

Pharmacist (retired)

67 | M  
Married

Peoria, IL

### Personality Traits

Easygoing  
Funny  
Inspired  
Quick Learner

### Bio

Lee is a retired pharmacist who's worked his whole life and now he wants to pick up Japanese during his morning walks and be prepared for basic conversations before going on a vacation to Japan with his wife.

### Frustrations

Unable to find a proficient Japanese tutor who can teach both written and Conversational Japanese.

### Goals

Wants to learn conversational Japanese before heading over to Japan for his vacation.

### Expertise

- Critical care pharmacy
- Ambulatory care
- Medicinal expert

### Appealing Designs

- Facebook
- Minimalistic
- Self-explanatory representations
- Short navigation

## WORKFLOW

- **Process:** Mix of waterfall and agile
- **Stages:**
- **Contextual Inquiry**
- **Personas:** As a team we developed personas for target users of our product. Considering there are two different types of users that would use NerdFind such as a tutor or a learner. We had developed ideal stories and scenarios for those two target users.
- **Frame User-Epics:** From our personas we were able to define user stories that had to be implemented in NerdFind in order to satisfy the needs and purposes of the application. One major user story being “As a user, I need to be able to find and book a tutor”.

- **Lo-fi:** Each team member created timed rough sketches using paper sketching or Google Doc drawing.
- **Feedback:** Receiving feedback from our peers we had applied some new features and functionality to NerdFind.
- **Mid-fi:** As a team we had developed a Lo-fi prototype from our sketches. With these collaborated ideas and personas we had developed an interactive prototype with our first initial design ideas.
- **Test-1:** We interviewed 3 different potential users to walk through our mid-fi prototype and finish prescription tasks. They responded positively and provided suggestions for revision.
- **Style guides and Design components:** We created an extensive brand guide aligned with our brand, including color palette, typography, revised logo, and more.
- **Hi-fi v1:** We implemented the dark mode and the desktop app and tested the prototype to see what users thought about it.
- **Test - 2:** All but one user disliked the desktop sliders, which had less visibility.
- **Hi-fi - Final:** Rectified certain panels to make it translucent and more distinguishable. Receiving results for user-tests from mid-fi prototype allowed us as a team to develop a development ready prototype to be designed for the mobile application along with the web application.

## **TEAM MEMBER ROLES**

**JOHN NELSON:** RESEARCH, SKETCHING, PROTOTYPING, DESIGN

**PETER BUKOWSKI:** RESEARCH, SKETCHING, PRESENTATION, DOCUMENTATION

**BRIDGET WANG:** RESEARCH, SKETCHING, DOCUMENTATION, BRANDING

# Design Process

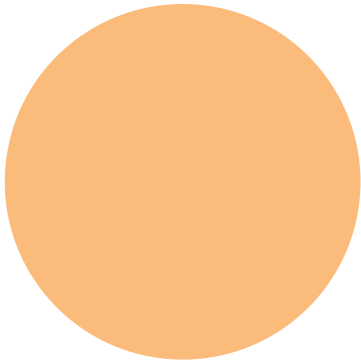
During the early stages of the NerdFind project, we have strived to follow some of the most important golden rules for HCI design. Consistency and practicality make up the core of our design. Ever since the initial stage of our project, we have focused on the versatility of the app so it can be used among a diverse audience. It is important that the app and website are easy to navigate and do not slow down users from completing segmented tasks in order to achieve their goals, which is related to another design principle called the law of Prägnanz which calls for simplification of task structures. Our users can navigate back and forth the map search function easily, given that we pride ourselves in prioritizing in the geolocation-based search. Moreover, the flexibility and efficiency of use come in first compared to all other criteria of our design through minimal clicks and legibility. Last but not least, the design aesthetic of our app and website leans towards the minimalist design. We have utilized a relatively smaller color palette and have maintained a consistency in navigation and flows between our mobile and desktop applications.

## BRAND TONE

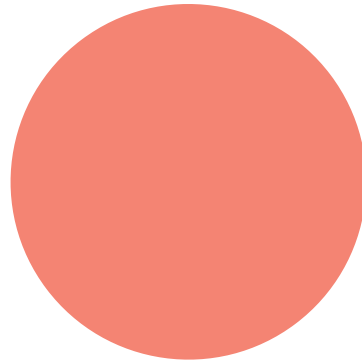
NerdFind connects learners and tutors based on geographical locations and areas of needs. It is our mission to create the most convenient access for our users to search, schedule, reschedule, rate, pay, and get paid for the tutoring services. We like to keep things simple and on-point. We are straight-forward, we are easy to navigate.

We believe in delivering a hopeful, positive outlook on our services and in our lives. We care about the privacy and security of all of the users of the NerdFind services.

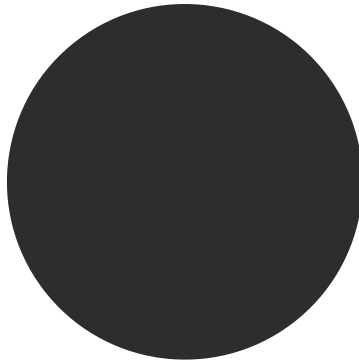
## COLOR PALETTE



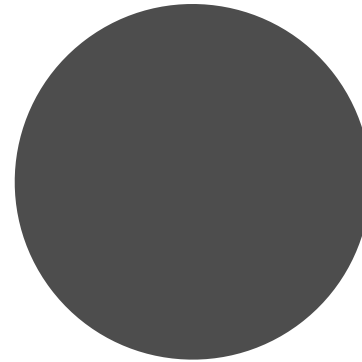
#FFB271



#FF6583



#2E2E2E



#4E4E4E



## **FONTS**

**Urbane Rounded:** The only place this occurs is the Logo, The soft corners were more akin to the minimalist goals that we had in mind.

**Helvetica Neue:** This font is proven by UX giants Apple Inc. as one the best in readability. All text in the applications are variations of this font.

## **FONTS**

### **Mobile**

Title: Helvetica – 34px  
Heading/Buttons: Helvetica – 20px  
Heading-2: Helvetica – 18px  
Paragraph: Helvetica – 17px  
Misc. Information: Helvetica – 13px

### **Website**

Title: Helvetica – 40px  
Heading/Buttons: Helvetica – 24px  
Heading-2: Helvetica – 19px  
Paragraph: Helvetica – 17px  
Misc. Information: Helvetica – 15px

# DESIGN ELEMENTS

## LOGO



Three-part:  
A lit light bulb  
A perfectly round circle  
Our brand name

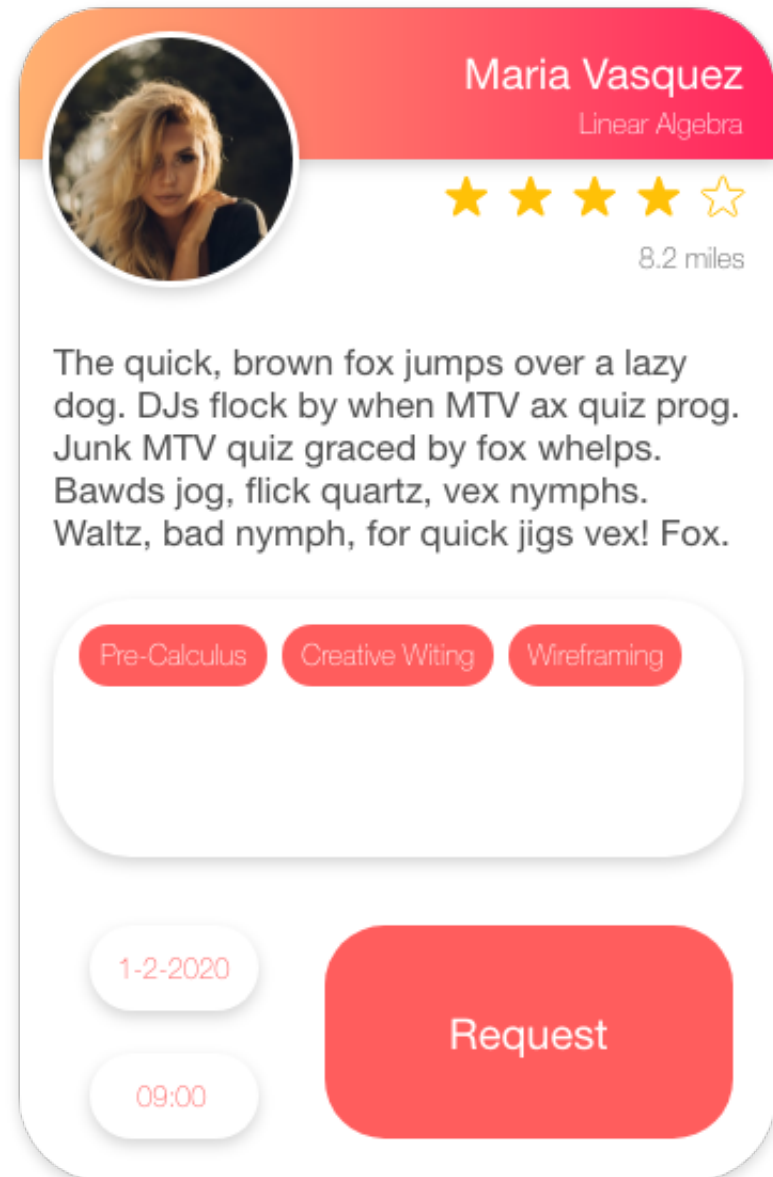
There is only one version of logo permitted.

Logo is used against white background in light mode and grayscale black background in dark mode.

Round corners for text entry: This is to keep the interface a softer feel


Shadows: Shadows add depth to the elements, emphasizing important information and interactable features.


Nerd Blips & Cards: Clicking on the blips on the map would expand and collapse the tutor's information. A one tap requesting function would give flexibility to view many tutors in a short period of time.








**Sliders:** Sliders are an inspiration from the volume control in radios, They feel more comfortable and fluid compared to manual entry controls.



**Slide-in filters:** Filters are the most essential part of the search process, but instead of having it on the screen at all times, giving it a slide in and out function would keep the interface clean and clutter free.

Zip-Code 

  
12mi 47mi  
Distance (miles)

  
Rating

Time  
 :  -  : 



Color Consistent Buttons and Navigation: The grapefruit orange color is what is used for the buttons and navigation elements. The goal is to have users enjoy clicking through the application. Straying from the mainstream blue and green colors gives the navigational aspect of the application more appeal.



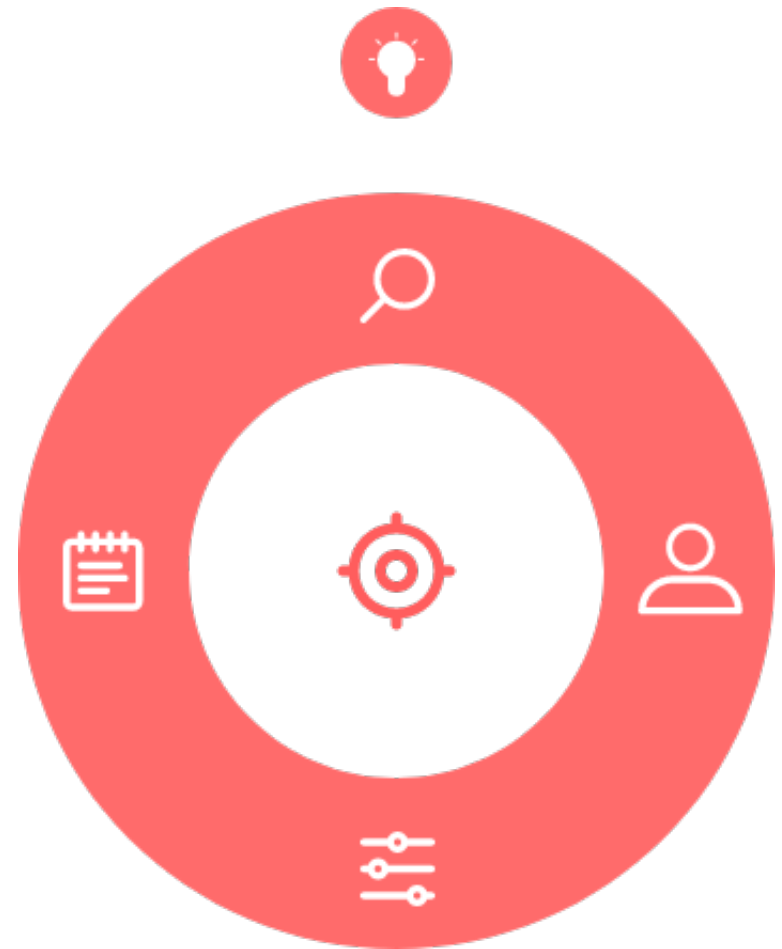
Log In



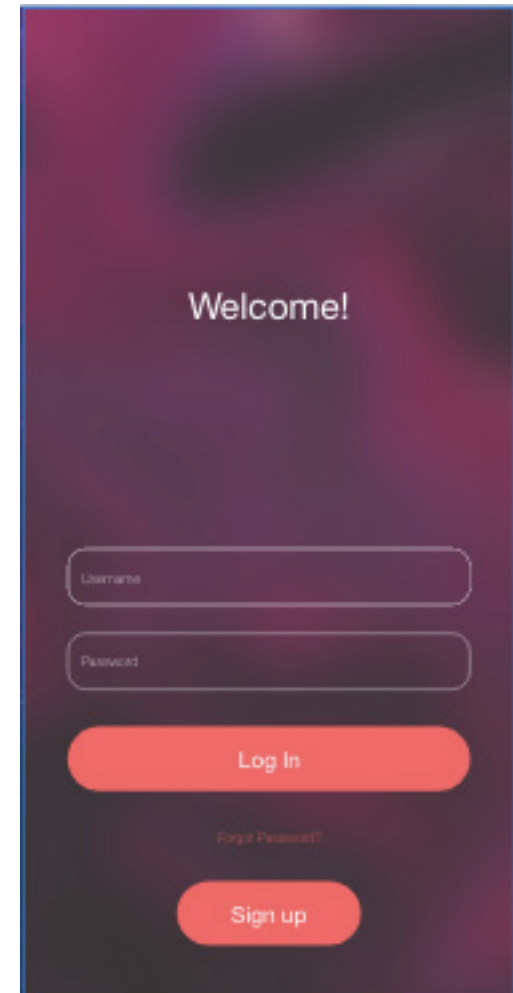
Sign up



Pie-Menu: The pie menu works best with drag and rotate functionality which can be implemented during the later stages of the development.



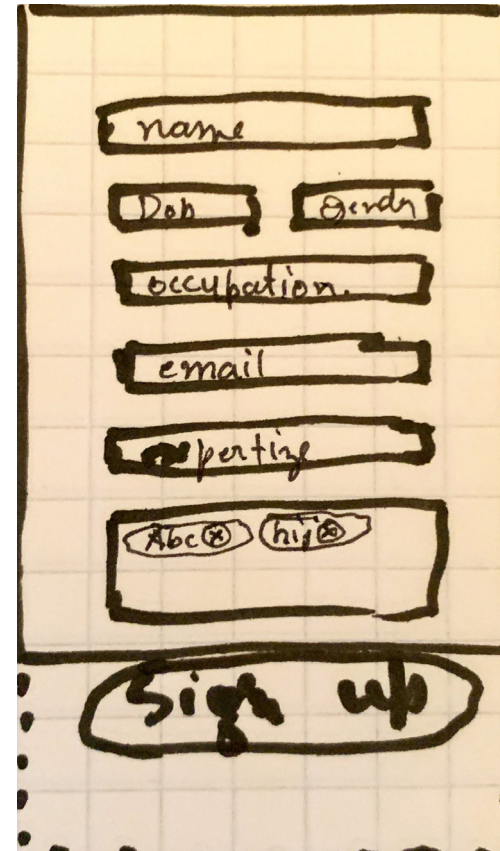
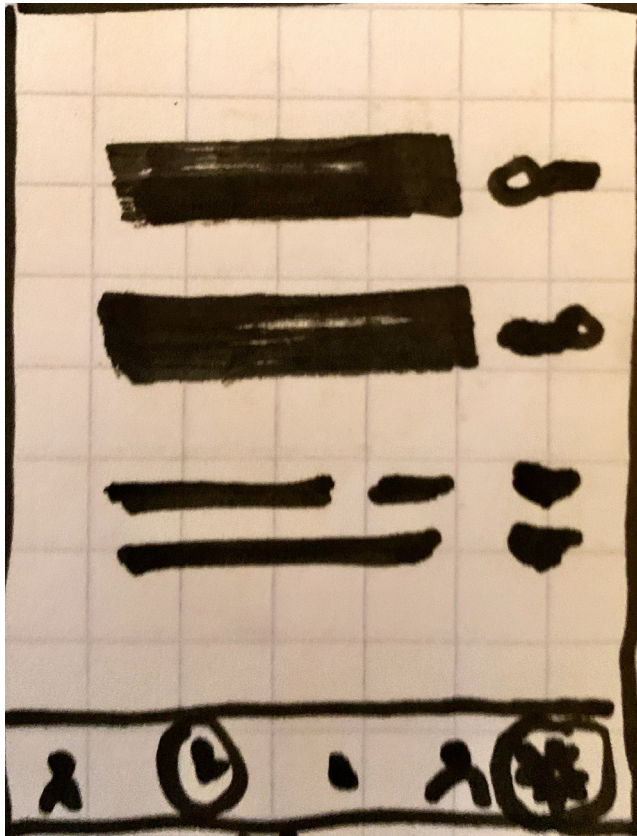
Translucent panels (desktop version):  
This glass themed panel style in dark desktop mode reduces strain on the eyes and blurs out the background so as to not allow information cramming.



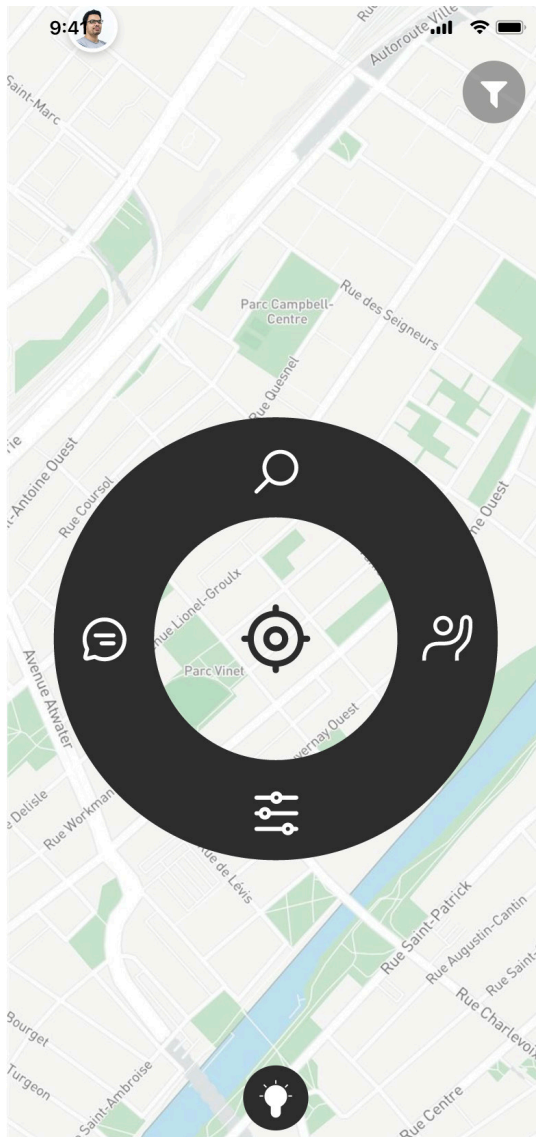




**BRAND MOODBOARD**



SAMPLE LO-FI



9:41



**Taylor White**

Organic Chemistry



**Jason Smith**

Advanced Algebra



**Sarah Holmes**

Effective Communication



**Meghan**

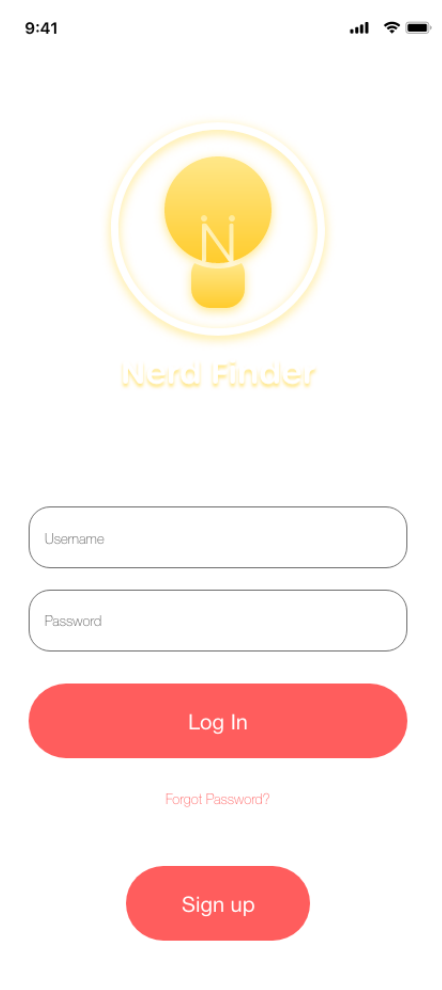
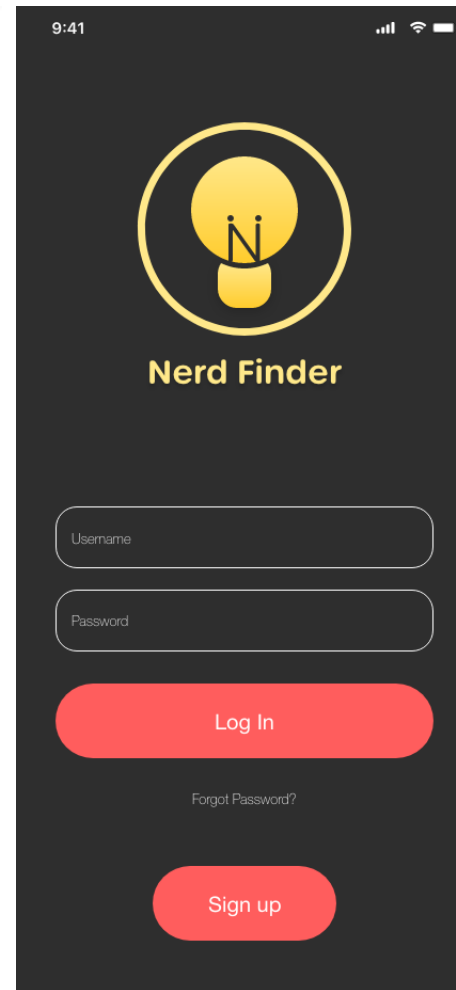
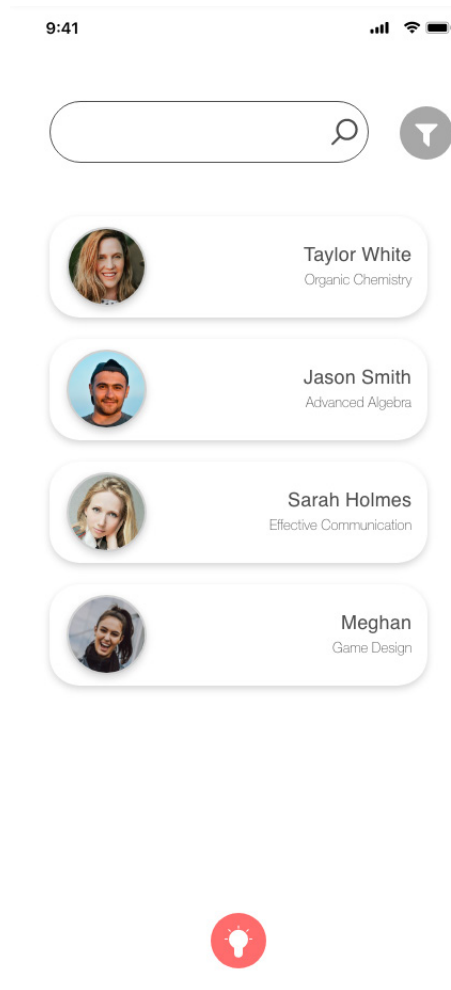
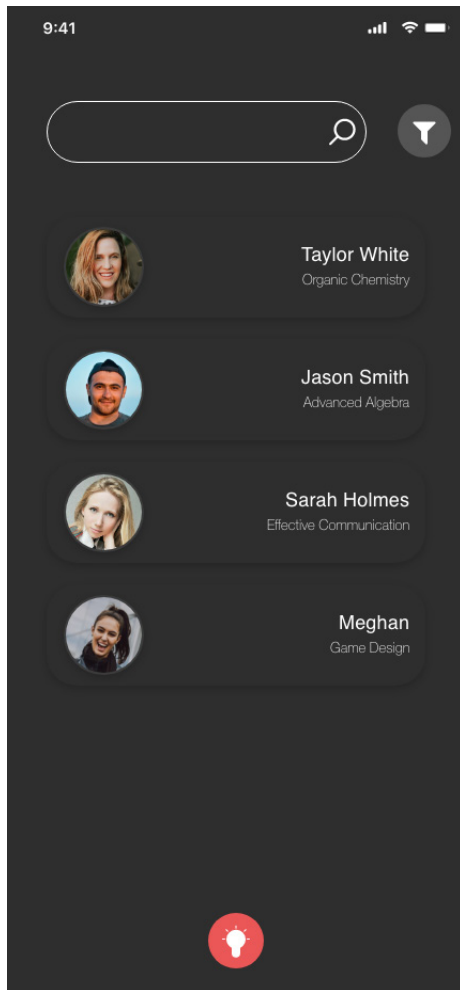
Game Design



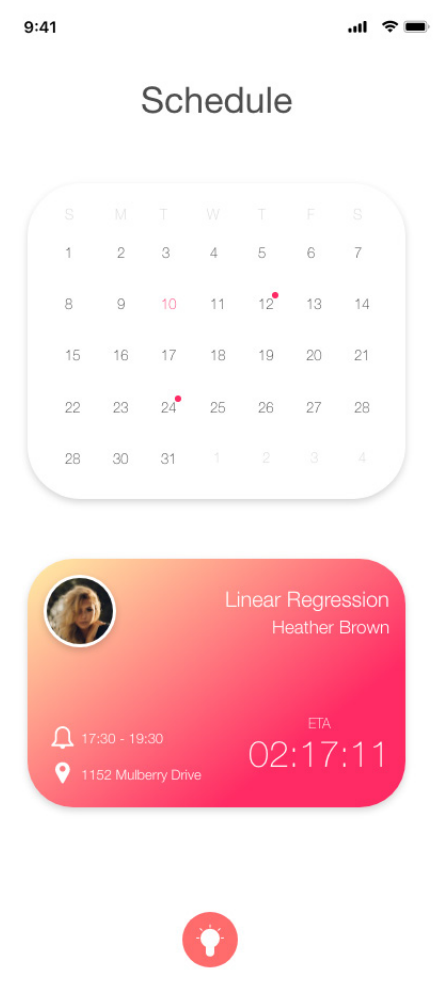
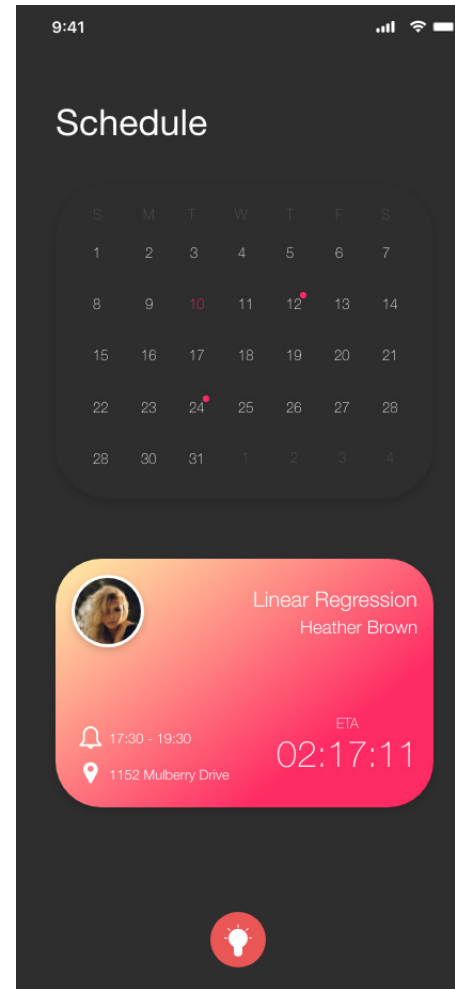
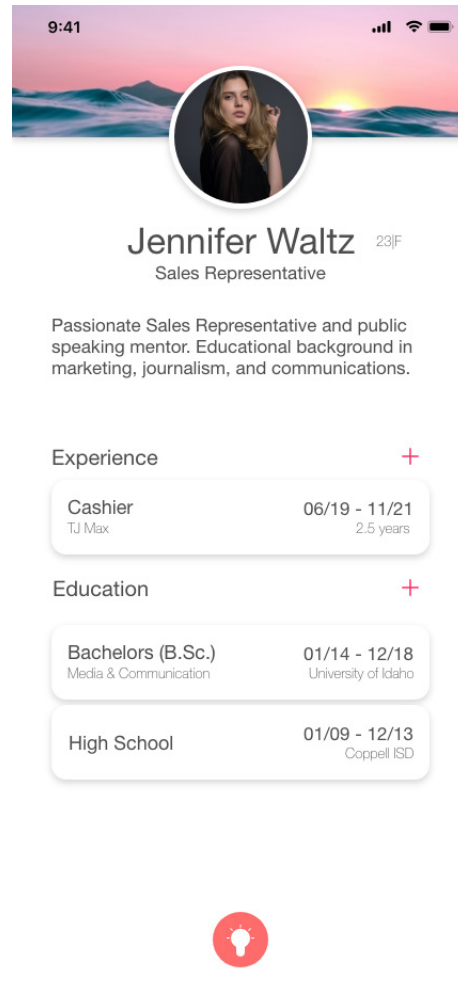
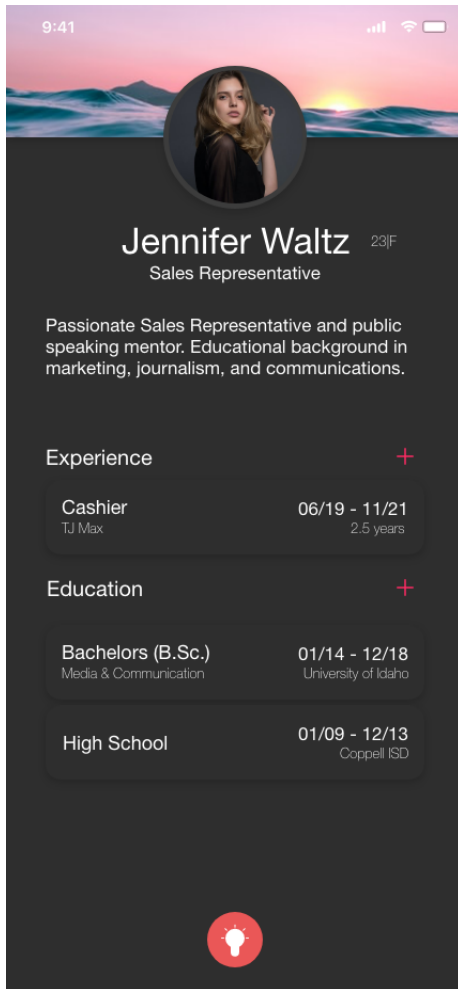
**SAMPLE MID-FI**



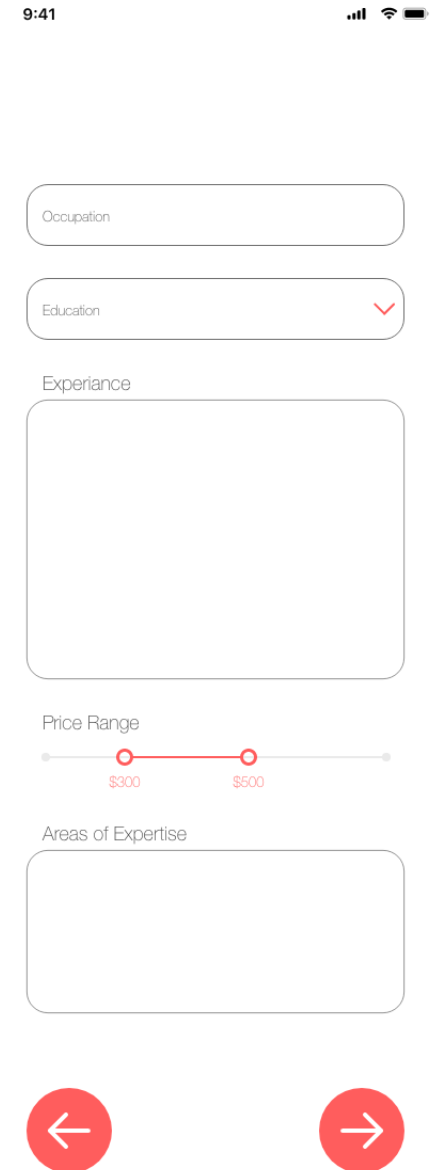
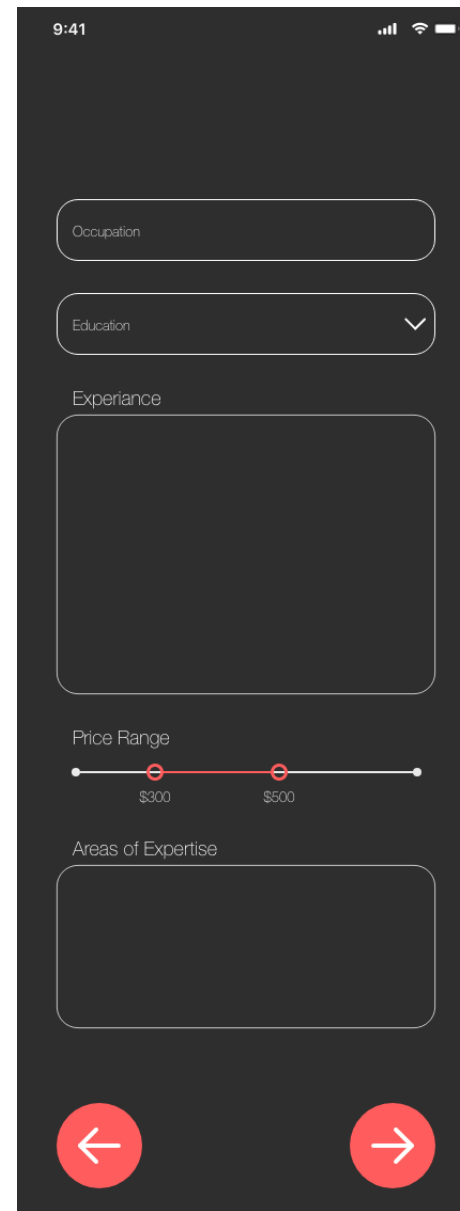
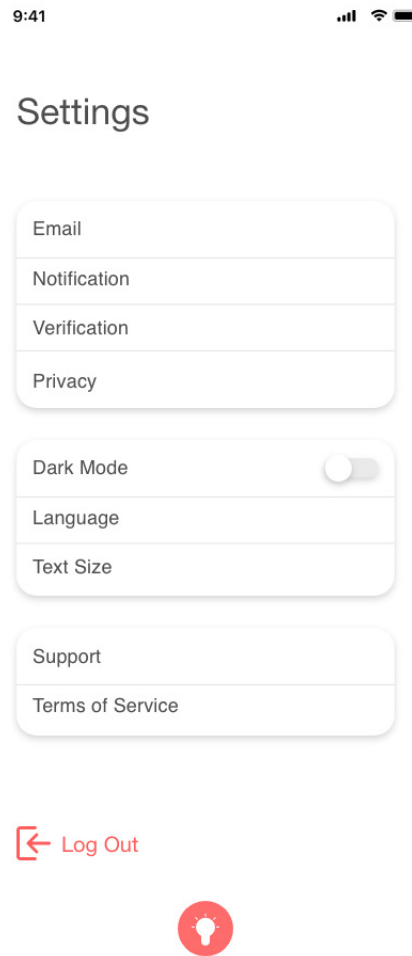
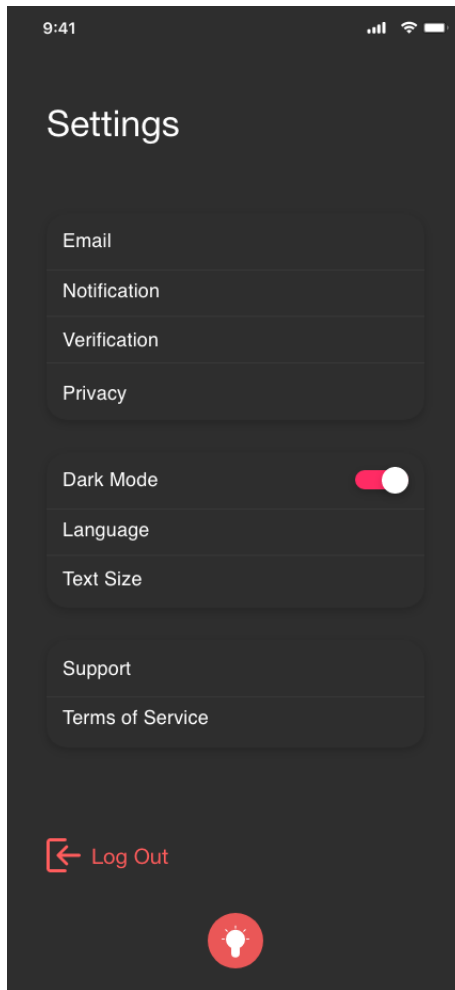
# MOBILE PROTOTYPE



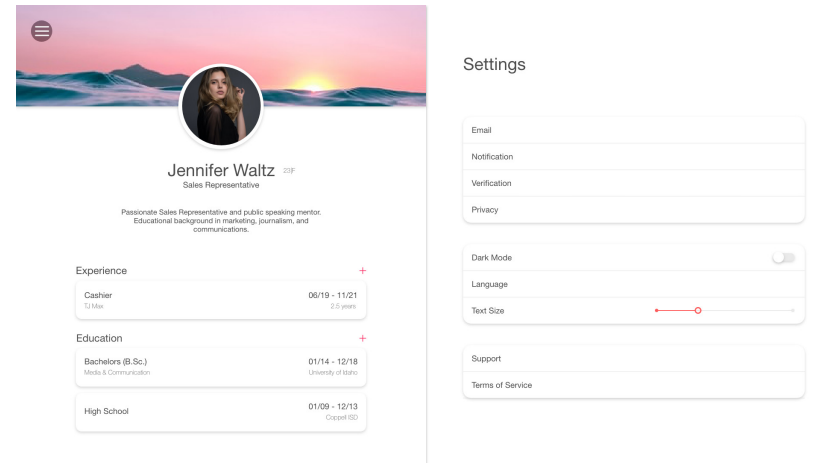
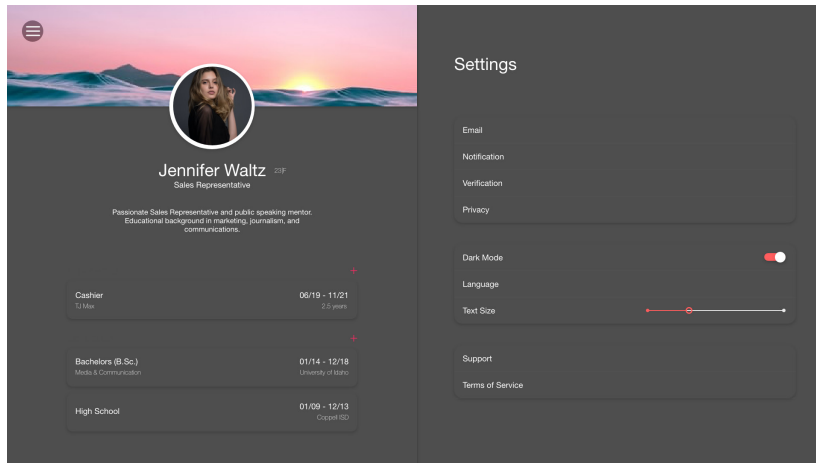
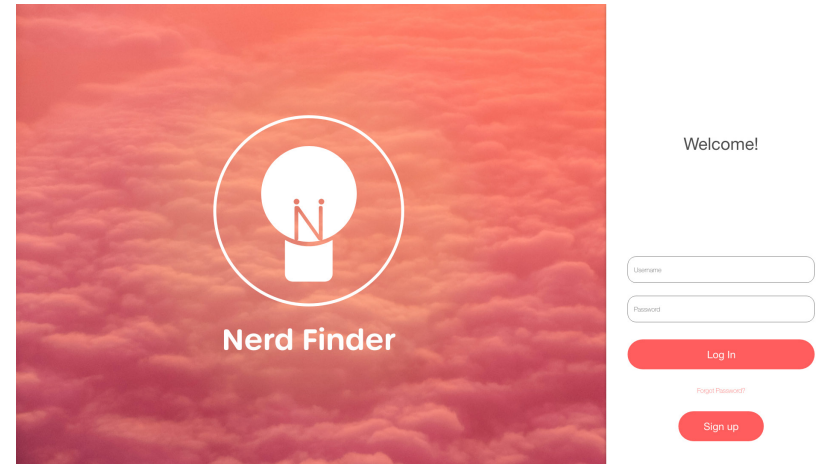
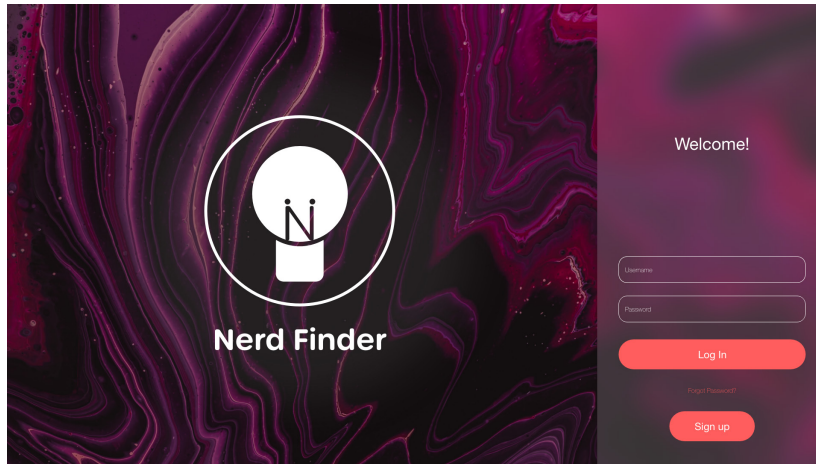
# MOBILE PROTOTYPE



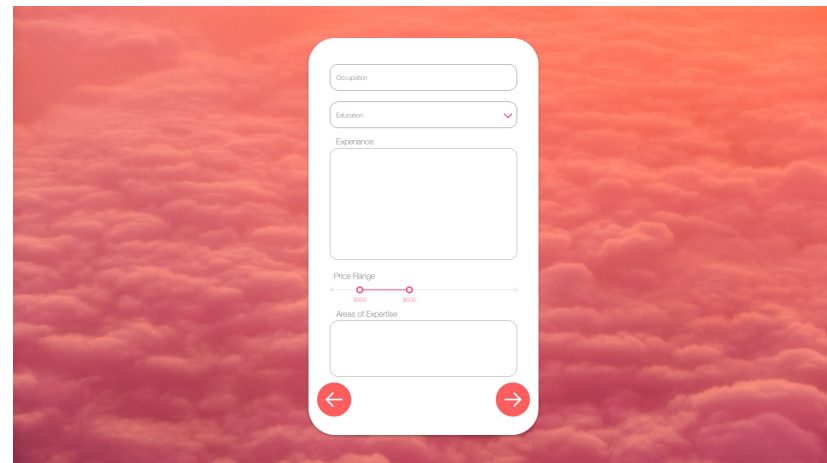
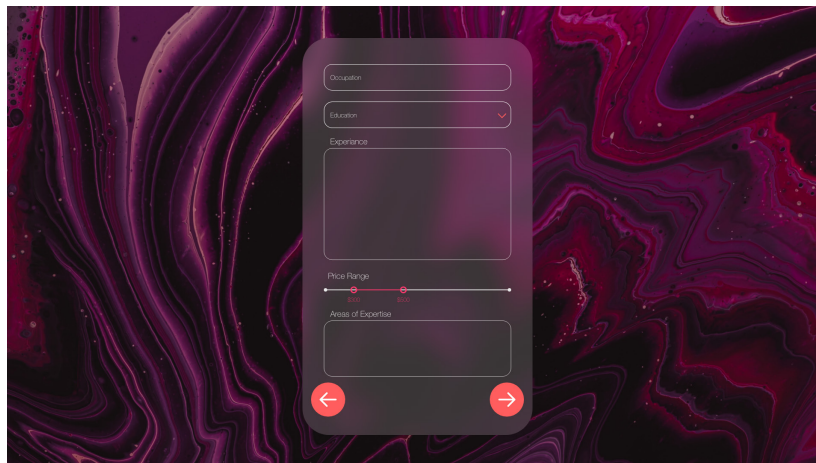
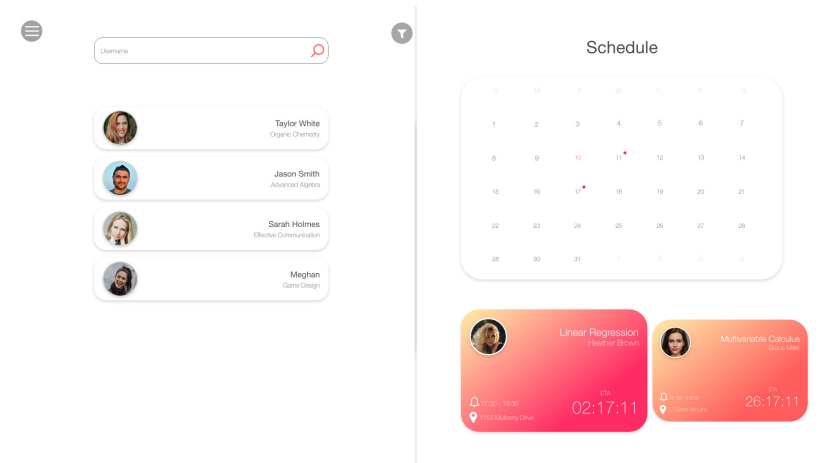
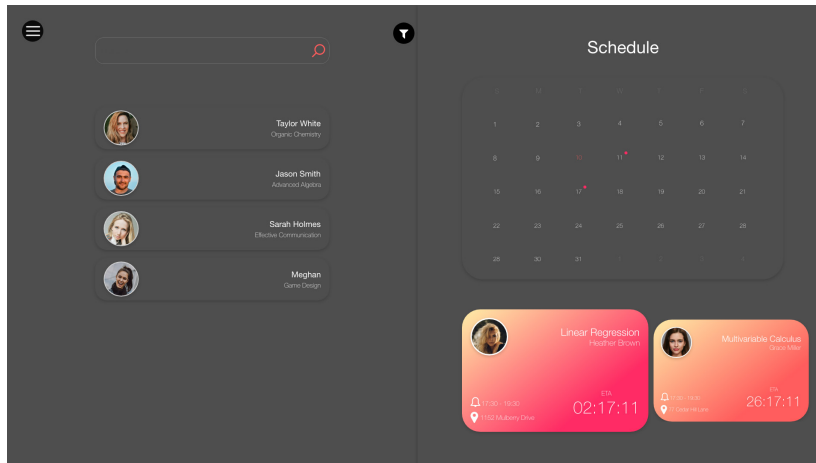
# MOBILE PROTOTYPE



# WEBSITE PROTOTYPE



# WEBSITE PROTOTYPE





# SUMMARY

## Takeaways

- Doing solo sketches allowed us to collaborate ideas for prototypes and helped us determine design, functionality and user experience.
- Conducting contextual inquiry helped us create personas which set boundaries for design. Along with creating personas it helped our team in targeting a specific audience.
- User-testing for our mid-fi prototype helped us as a team visualize a user going through the application the first time. With the responses and results received from the test we were able to

## Next-Steps

- The next phase would be to work on the interface for the tutors. The goal is to design a good mode of communication with minimal and essential information which will help us get more user engagement through the application and not outside it. Once this part has been prototyped and tested, based on the feedback of users we might or might not try to get this developed. All critique and feedback is greatly welcomed to improve this project.

# THANKS!

WE'D LIKE TO THANK PROFESSOR ADAM STEELE  
FOR HIS GUIDANCE, AND THE USEFUL CRITIQUE  
FROM TEST SUBJECTS AND PEERS WHO HELPED  
MAKE THIS PROJECT A SUCCESS.