

Report

Shenghao Shek (ss3526), Jinmo Huang (jh2439), Zeyu Liu (zl326), Xiaohan Wang (xw642)

| | |
|--|-----------|
| Report..... | 1 |
| Shenghao Shek (ss3526), Jinmo Huang (jh2439), Zeyu Liu (zl326), Xiaohan Wang (xw642)..... | 1 |
| Planning..... | 4 |
| 1. Research..... | 4 |
| 1.1 Interview Findings..... | 4 |
| 1.2 Process..... | 5 |
| 2. User..... | 6 |
| 2.1 User- Ph.D Students..... | 6 |
| 2.1.1 User Goals..... | 6 |
| 2.1.2 Personas..... | 7 |
| 2.1.3 Task Scenarios..... | 7 |
| Task Scenario 1: Schedule..... | 8 |
| Task Scenario 2: Networking..... | 8 |
| 2.2 User- Administrator..... | 9 |
| 2.2.1 User Goals..... | 9 |
| 2.2.2 Persona..... | 9 |
| 2.2.3 Task Scenarios..... | 10 |
| Task Scenario 1: Make Schedule..... | 10 |
| Task Scenario 2: Reimbursement Process..... | 11 |
| Design..... | 12 |
| 1. Brainstorming..... | 12 |
| 2. Design Ideation: Sketches..... | 13 |
| 3. Task Flow..... | 17 |
| 4. Final Design: Neat Sketches..... | 18 |
| 4.1 Homepage..... | 18 |
| 4.2 Schedule..... | 21 |
| PhD.Students..... | 21 |
| Admins..... | 24 |
| 4.3 Networking..... | 26 |
| 4.4 Reimbursement..... | 29 |
| PhD.Students..... | 29 |
| Admins..... | 29 |
| 4.5 Profile..... | 30 |
| PhD.Students..... | 30 |
| Admins..... | 31 |
| Evaluation..... | 32 |
| 1. Findings..... | 32 |
| 2. Process..... | 33 |

| | |
|---|-----------|
| Contribution..... | 33 |
| Appendix..... | 36 |
| 1. Planning..... | 36 |
| 1.1 Protocol & Interview Questions..... | 36 |
| 1.1.1 For PhD students..... | 36 |
| 1.1.2 For Admins..... | 38 |
| 1.2 Interview data..... | 39 |
| Interview 1..... | 40 |
| Interview 2..... | 44 |
| Interview 3..... | 46 |
| Interview 4..... | 48 |
| Interview 5..... | 49 |
| Interview 6..... | 50 |
| Interview 7..... | 51 |
| Interview 8..... | 52 |
| 1.3 Affinity Diagram..... | 54 |
| 2. Design..... | 54 |
| 3. Evaluation..... | 54 |
| 3.1 Tasks..... | 54 |
| 3.2 Evaluation criteria..... | 55 |
| 3.3 Usability testing data..... | 55 |

Planning

1. Research

1.1 Interview Findings

Through interviews, our objective is to delve into the experiences of PhD students who participated in visit days at Cornell University, as well as the experiences of administrative staff involved in planning and organizing these visit days.

For the PhD candidates, most of the interviewees expressed a desire to meet with as many faculty members as possible and appreciated the flexibility to choose which faculty members they could meet with. They also generally found visit days to be helpful in making their decision to choose Cornell for their PhD studies. They also mentioned that communication with faculty members when setting up appointments is important, and that information about faculty and labs is relatively easy to find on university websites. Some interviewees suggested improvements such as more time to interact with current grad students.

The interviewees also shared insights on various other aspects of the visit day, including transportation, accommodation, and food. Some interviewees expressed the value of receiving personalized recommendations for visit day planning, being able to explore dining options beyond the planned meals, enabling them to fully immerse themselves in the university's culture and lifestyle. Overall, most interviewees had positive experiences during their visit day at Cornell.

According to the admin participant, the main challenge for administrators is the manual organization of Cornell visit days, which often involves handling a large number of participants exceeding a hundred. She emphasized the need for improved data management through technology, drawing from their experience in collaborative visit day planning and data handling. The participant suggested enhancing efficiency in

editing schedules and providing additional resources for transportation and accommodation. Currently, the itinerary and group activities are uniformly created and shared with students as PDF emails. The participant also mentioned a need for a better organization of reimbursement reports and the implementation of a system to notify students about travel changes. She also suggested utilizing an app messaging system for enhanced communication, as they currently organize Slack channels and schedule appointments between students and professors, which is very manual-dependent.

1.2 Process

We used semi-structured interviews as the primary method for data collection. The use of semi-structured interviews is a good choice because it allows for both structure and flexibility in the conversation, and for in-depth exploration of the research themes while also providing space for participants to share their experiences and perspectives in their own words.

The themes of the interviews were determined based on the research questions and the specific context of the study and were also analyzed using affinity diagrams. The themes of goal, schedule, transportation, accommodation & food, and experience and future improvement were chosen to cover the essential aspects of the participant's visit to Cornell's campus for the Ph.D. program visit day.

Due to scheduling constraints, we conducted the interviews both in person and on Zoom. This allowed for a remote, convenient, and efficient way to connect with participants without geographical limitations. It also provided a more personal interaction than other online methods, allowing for non-verbal cues and a more conversational approach.

During the interviews, several themes emerged from the Ph.D. candidates' experiences during the visit day, such as their goals, schedules, transportation, accommodations, food, and suggestions for future improvements. To organize and make sense of this

qualitative data, we used an affinity diagram, leading to better insights and recommendations for improving the visit day experience.



2. User

2.1 User- PhD Students

Users are prospective PhD students who are interested in visiting Cornell University for a visit day. They are looking to efficiently plan their visit day, including scheduling appointments with faculty, navigating the campus, and making travel arrangements. In addition, they may be seeking opportunities to socialize with current students and learn more about the program and campus community.

2.1.1 User Goals

1. Users want a way to improve communication with faculty, such as a platform that allows for easier scheduling and messaging.

2. Users want personalized recommendations or suggestions for planning their visit day, such as recommendations for hotels, restaurants, and local attractions, to help them save time and make the most of their visit.
3. Users want to be able to efficiently navigate the campus during the visit day, to make the most of their time and ensure that they don't miss any important meetings or events.
4. Users want access to weather information, particularly if they are traveling from a different region, to help them prepare for the visit day.
5. Users want to customize their schedule easily for the visit day.

2.1.2 Personas



Samantha

ABOUT

She graduated with a Bachelor's degree in Computer Science from UCLA and has been working in software engineering for two years with a specific interest in accessibility development. She has always been passionate about research and decided to pursue a Ph.D. in Computer Science to deepen her knowledge in the field. She was accepted both in Cornell and Cornell Tech programs.

"I'm excited to attend Cornell's visit day and explore the opportunities that the Ph.D. program has to offer."

| | | |
|------------------|-----------------------------------|------------------------------------|
| AGE 24 | JOB TITLE PhD candidate | LOCATION Los Angeles, CA |
|------------------|-----------------------------------|------------------------------------|

GOALS

- Ensures that the Cornell Ph.D. program aligns with her research interests well of her ideas at any place.
- Sees the Cornell campus and get a sense of the community and culture of the program

PAIN POINTS

- Has a tight schedule and needs to effectively manage her time to meet with professors and attend other events.
- Needs clear communication and organization of the visit day schedule and logistics.
- Manages her expenses during the visit day, including transportation, food, and lodging.
- Feel overwhelmed or unsure about how to approach the visit day and make the most of her time and build connections there.

NEEDS

- Connects with professors and faculty members to learn more about their research
- Connects with current Ph.D. students to learn about their experiences in the program

7

2.1.3 Task Scenarios

Task Scenario 1: Schedule

Samantha, a Ph.D. student in Information Science, wants to make the most of her visit day to a university where she intends to meet with six professors, attend an information session, and tour the campus. Using our app, Samantha can view her personalized schedule on the homepage, which includes all of her events for the day. Samantha can also drag and drop events to different timeslots to customize her schedule. The app displays the distance and estimated commuting time between two events in the middle of the two cards, and users can easily navigate to Google Maps for directions by clicking on the "nav" button. Additionally, the app provides personalized recommendations for local hotels, restaurants, and attractions based on Samantha's preferences and budget. Samantha can easily modify her schedule by selecting from four types of events (professional, dining, hotel, and visit) on the Schedule page, viewing available professionals or restaurants, and clicking on available time slots to add events to her calendar.

Task Scenario 2: Networking

Samantha wants to improve her communication with faculty and other Ph.D. students during her visit day to a university. Using our app, Samantha can access the Networking page, where she can browse and search for questions related to her field of study. She can also post her own questions and specify the category of the question. If someone responds to Samantha's post, she can initiate a chat with them and communicate directly. The app provides several categories of questions for Samantha to select from, including research, professional development, and social events. The app also features a search button to facilitate question searches.

2.2 User- Administrator

Users are admins from information science departments who are responsible for PHD visit day. Each year they hold a visit day for incoming Ph.D Students to explore the campus and meet with faculties. They are looking to make the visit day experience better for both themselves and Phd Students.

2.2.1 User Goals

1. The users want to adjust the schedule quickly in response to harsh weather, special situations, etc.
2. The users want to provide convenience to PHD students in terms of finding information for faculty, lab, transportation, dining, hotels, etc.
3. The users want to make the reimbursement process more easier and efficient for both themselves and PHD students.
4. The users want to have a department focus page that is created specially for visit day.

2.2.2 Persona



"I design with all my heart, thinking about the users"

| | |
|-----------|-------------|
| AGE | 38 |
| JOB TITLE | Coordinator |
| LOCATION | Ithaca, NY |

Jessica

ABOUT

Jessica is a administrator coordinator from information science departments who are responsible for planning PHD visit day. Each year they hold a visit day for incoming Ph.D Students to explore the campus and meet with faculties. They are looking to make the visit day experience better for both themselves and Phd Students.

GOALS

- To make a department focused page for Ph.D Student visit day
- Provide Ph.D Student essential resources for faculty, transportation, livings, dining, etc.

PAIN POINTS

- Cornell weather condition around visit day usually to be unpredictable and harsh, which causes necessary changes to schedule.
- Modifying PDF schedule for each student may be time consuming.
- There are so many data to handle including survey to track hotel room preferences, faculty to meet with, reimbursement, etc.

NEEDS

- Able to edit and coordinate schedule more efficiently for each student
- Make the reimbursement process to be handle faster
- Manage the data effectively and intuitively

2.2.3 Task Scenarios

Task Scenario 1: Make Schedule

Jessica is an office administrator working in the information science department. Using our app, Jessica can quickly create a common schedule for all candidates to attend some common events and make sure that there is no overlap between the different events times. Jessica can also adjust the schedule quickly in response to harsh weather or special situations. The app also provides information on local faculty, labs, transportation, dining, and hotels, making it easier for Jessica to plan some recommendations for PhDs, making a comprehensive and convenient visit day for the PhD candidates.

Task Scenario 2: Reimbursement Process

Jessica is an office administrator from the information science department. Using our app, Jessica can easily verify the reimbursement form by reviewing all final reimbursement forms from PhDs uploaded to the app. The app provides a convenient and efficient way for Jessica to process the reimbursement by automating the process of creating reimbursement forms and providing a digital platform for submitting and tracking reimbursement requests. After reviewing the reimbursement form, Jessica can either approve by signing a digital signature or reject to notify PhDs to revise their reimbursement forms.

Design

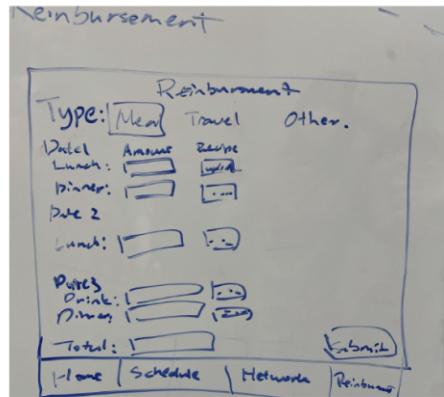
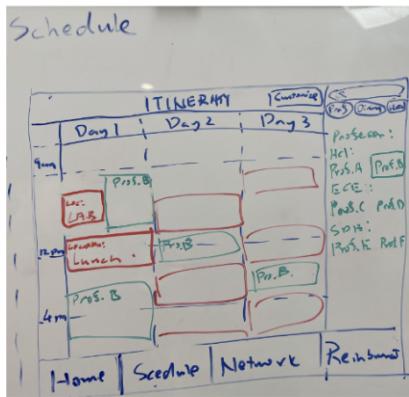
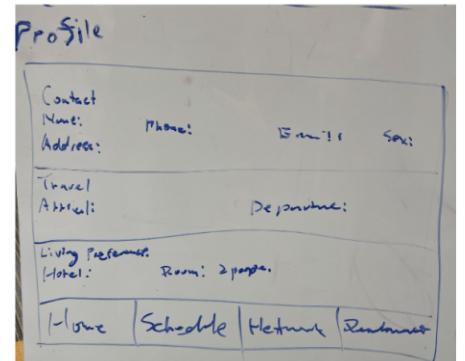
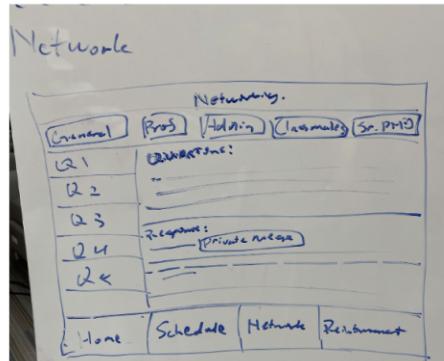
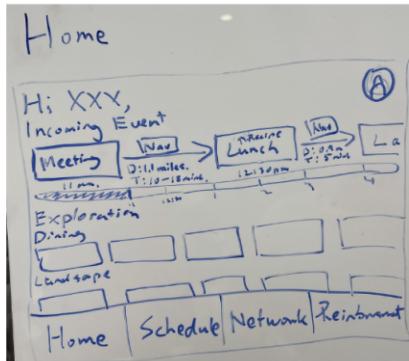
1. Brainstorming



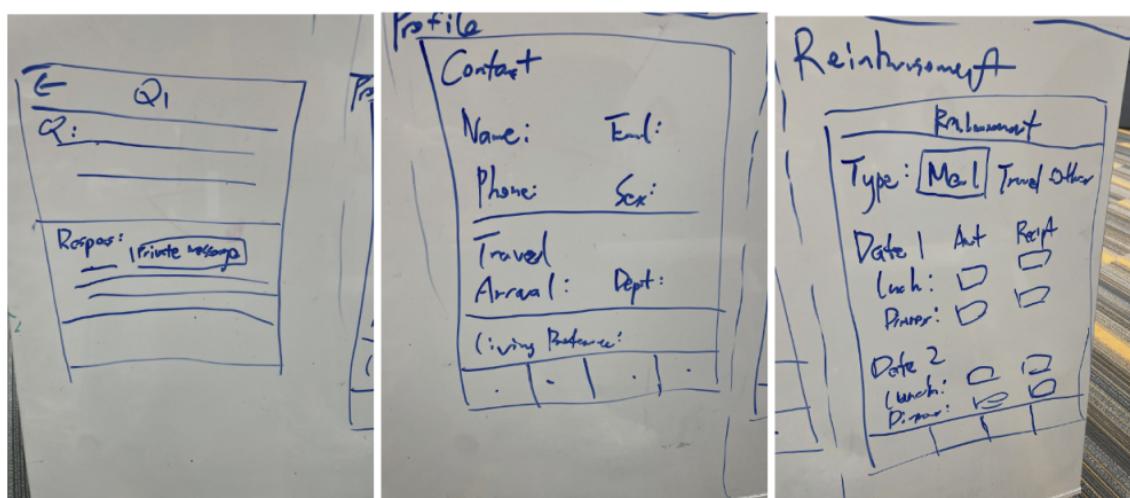
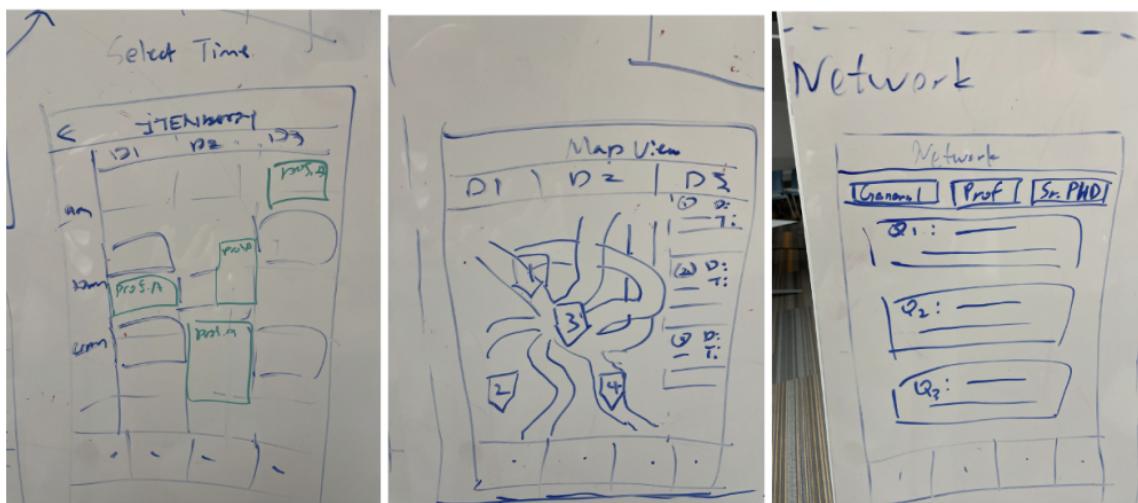
We first brainstormed to explore the primary functionalities, components, and layout possibilities. Through this process, we identified the key requirements needed by the users, namely Ph.D. students and administrators. These requirements encompass comprehensive features facilitating scheduling, reimbursement, and communication. Additionally, we acknowledged the importance of secondary features such as visiting on campus and arranging activities.

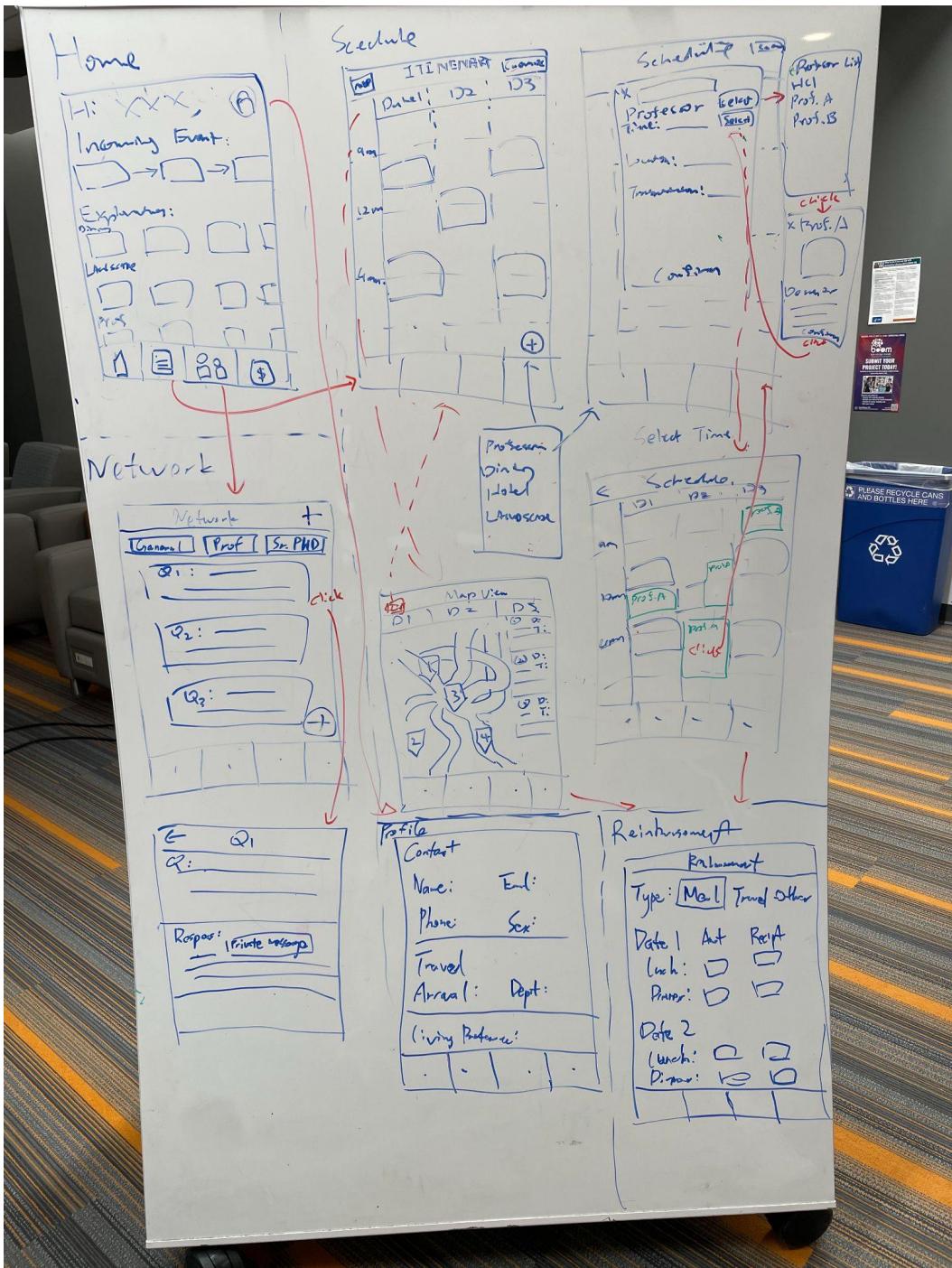
2. Design Ideation: Sketches

Desktop sketches:

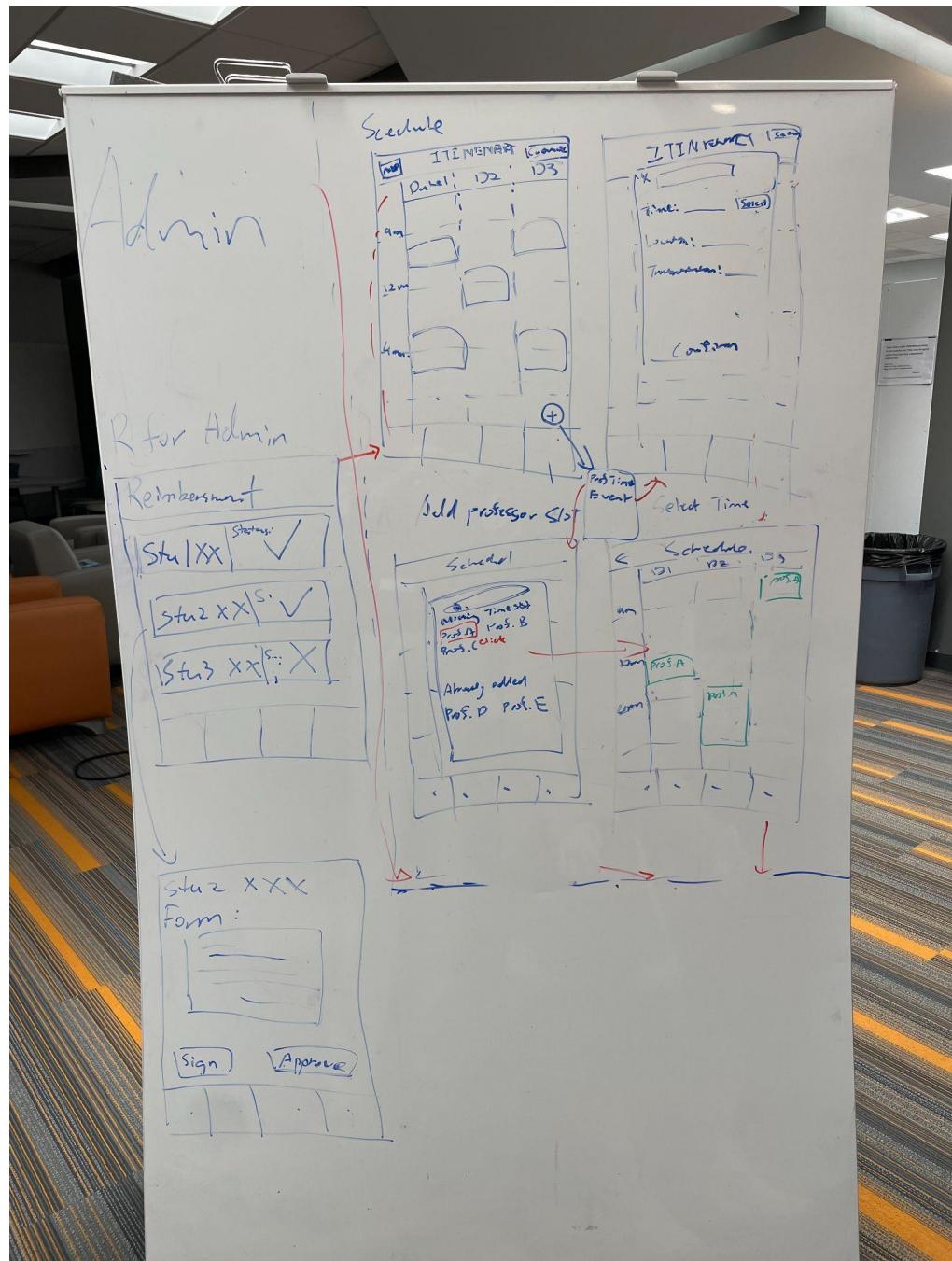


Mobile sketches:

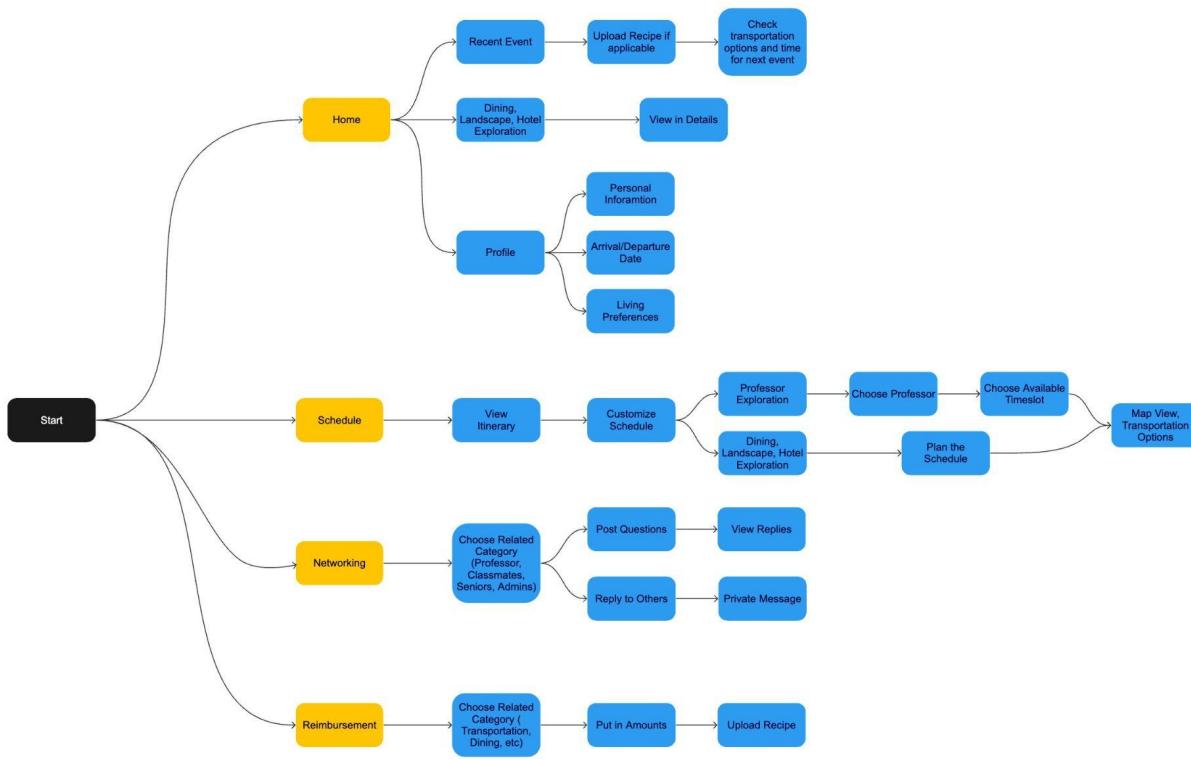




Flow



3. Task Flow



miro

4. Final Design: Neat Sketches

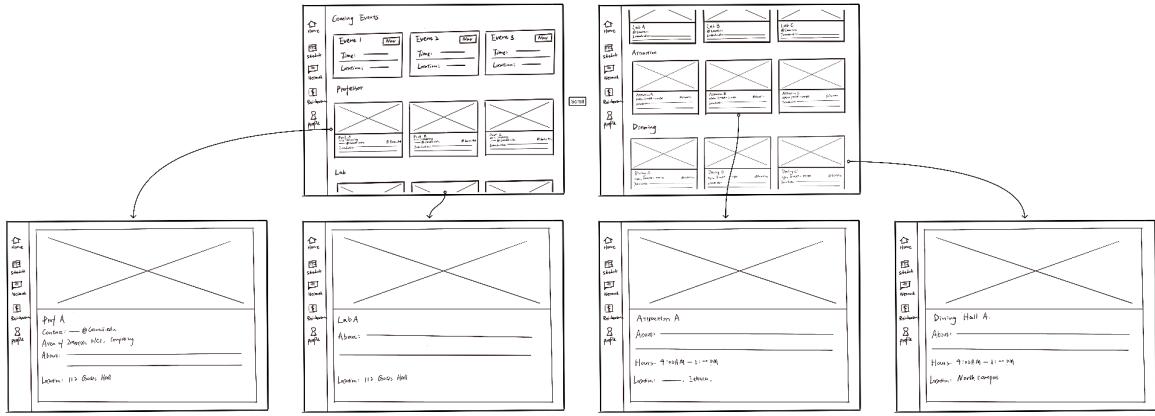
4.1 Homepage

The upcoming event of the user is prominently displayed at the top of the page, with the event card positioned directly below. This card contains essential details about the event, including time and location. Users have the option to click the "navigate" button on the card, which opens Google Maps to provide directions from the previous event to the next, including the required time and route. Additionally, below the event card, suggestions and overviews of professors, labs, scenery, restaurants, hotels, and other options are listed for users' convenience and reference. Upon clicking on the card, the user is presented with a detailed description on an individual page.

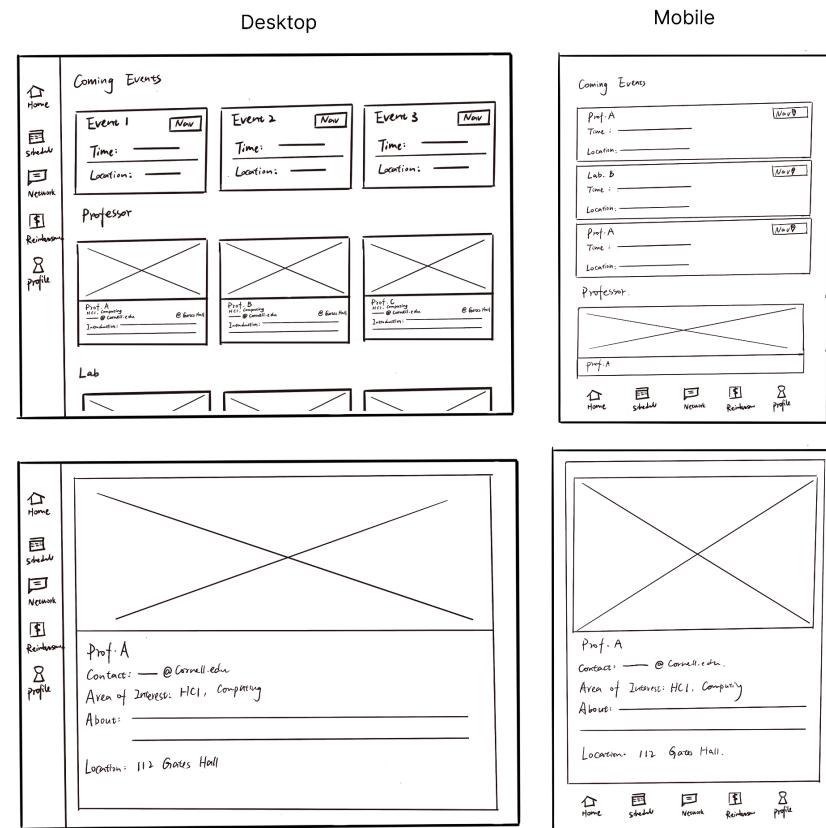
Rationale: The upcoming events prioritize fulfilling users' core needs, which include being aware of their time-sensitive schedule and easily locating destinations in an unfamiliar environment. The exploration list below the events caters to users' desire to immerse themselves in the university's culture. Through personalized recommendations and commuting information, our app efficiently assists users in maximizing their visit day experience while saving valuable time.

Task Scenario:

Samantha, a visiting PhD candidate arriving at Cornell tomorrow, is eager to learn about the day's upcoming schedule. She also wishes to allocate some time for exploring scenic spots outside of the pre-planned activities. Opening her app, Samantha discovers that she has an appointment with Professor Shifi to discuss her research interests at the earliest possible time of 9 o'clock tomorrow. Following that, she plans to visit the lab at 10 o'clock. Interested in ensuring sufficient time and proximity between locations, she clicks on the navigation button to check the distance and estimated travel time. Samantha then notices various attractions listed below, with the museum captivating her interest, prompting her to consider visiting it independently once her scheduled events conclude.



Flow



Layout

4.2 Schedule

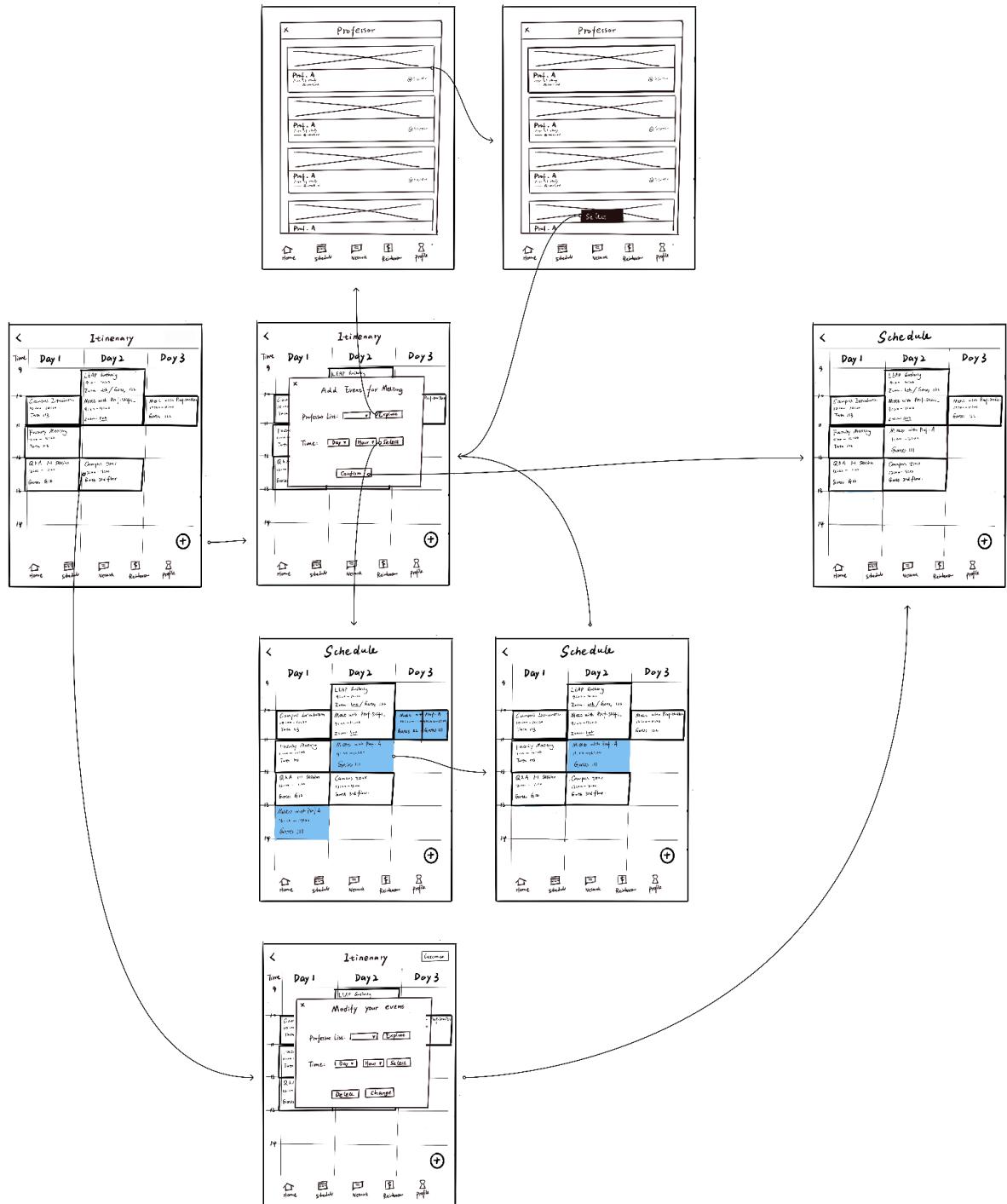
PhD.Students

The interface initially presents the itinerary set by the administrative staff, allowing students to make adjustments as needed.

1. Create an event: Upon tapping on the plus button, students can choose from options such as meeting with professors, visiting the lab, exploring campus attractions, and planning meals. There are two ways to add an event. The first way is for students who have already decided on the time and destination. They can select and confirm these two details using the dropdown menu. The second method is for users who are uncertain. By clicking on "explore," they can access a list with relevant information and select a destination from the card list, then it will return to the menu. For users who are unsure about the timing, they can click on "select" to preview the calendar, which will display available time slots in green. They can then choose a time from the calendar by tapping on it. Finally, users click the confirm button to complete the adding process.
2. Change and Delete: To modify or delete an event, users can click on the respective event to make changes or remove it.

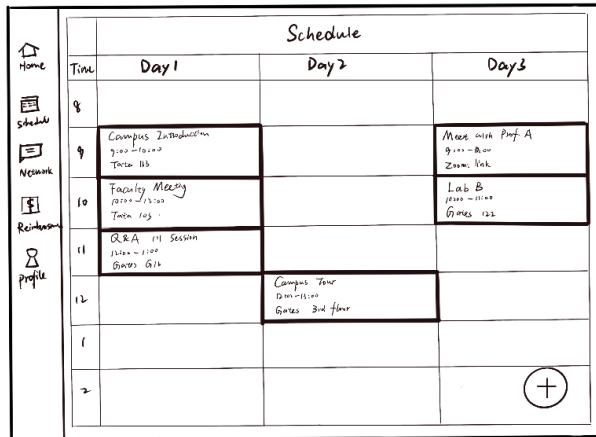
Task Scenario: Continuing with her planning for the next day, Samantha decides to explore the possibility of meeting two professors in the field of HCI. She removes the campus tour from her schedule since she is not particularly interested in it. Then, Samantha clicks on the "Add" button, selects the option for professors, and explores the list of professors in the relevant field available in the explore section. After identifying the individuals she wishes to meet, she carefully selects the appropriate time to add these meetings to her existing events.

Rationale: This addresses users' need of improving user experience from traditional pdf itinerary. Our app aims to convert itinerary quickly to their customized schedule by helping users set up appointments with faculties automatically with their availability slot which is logged by admins and plan any events in an efficient and effective manner.

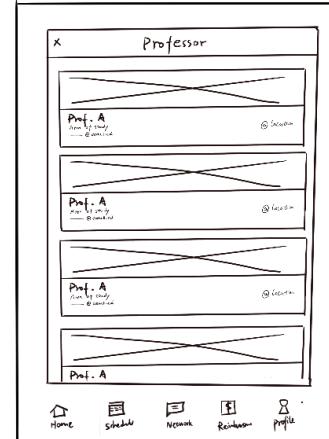
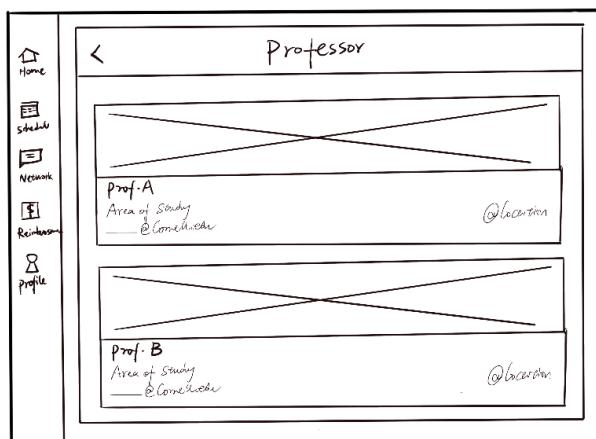
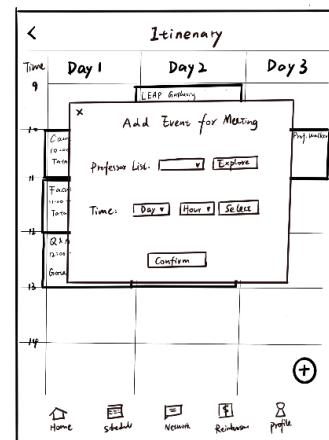
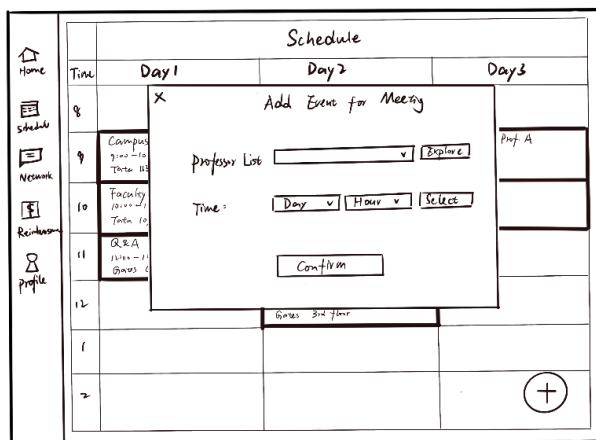
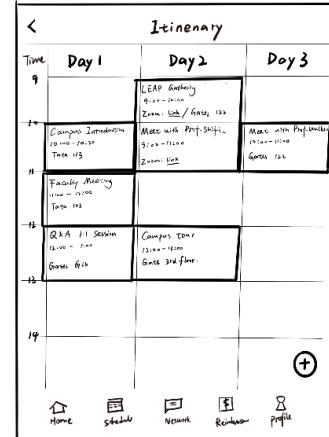


Flow

Desktop



Mobile



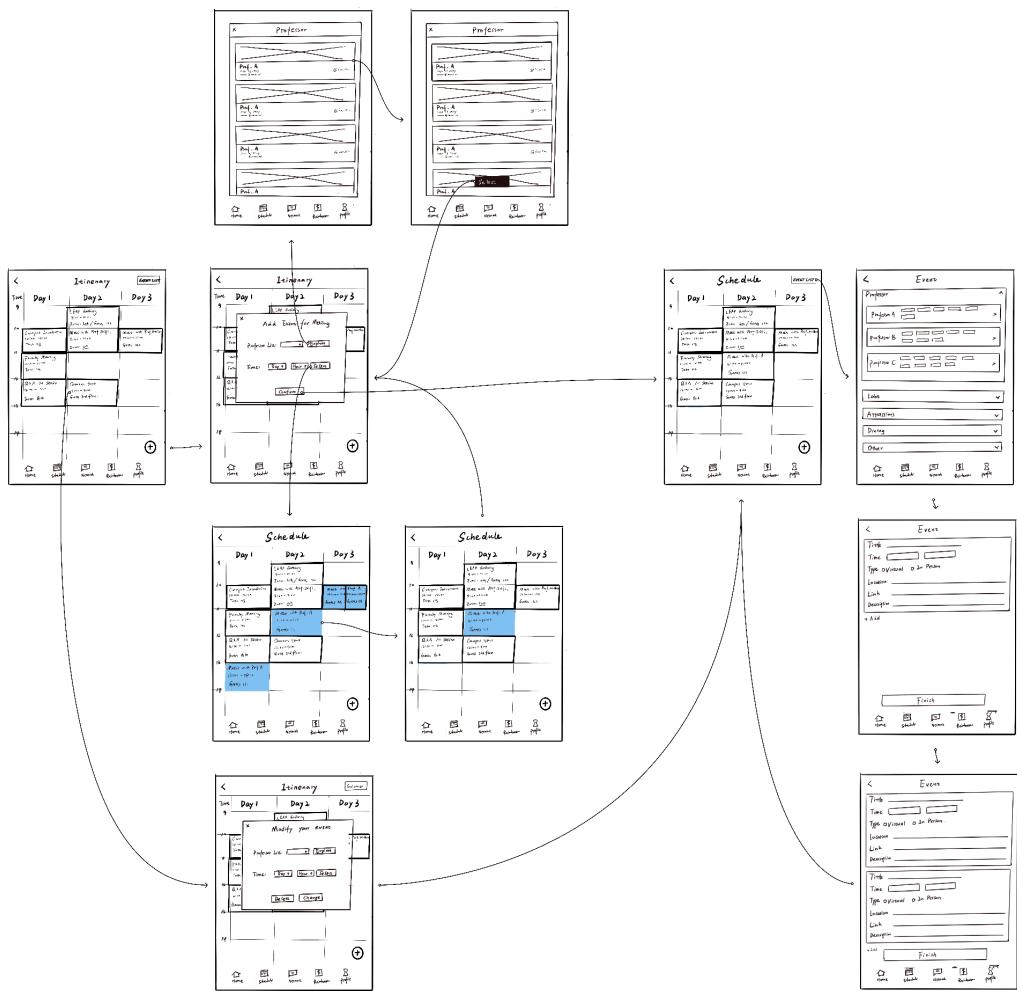
Layout

Admins

For the administrators, the calendar arrangement follows the same flow but with only a single itinerary view. Any changes made to the itinerary, such as adding events, will be automatically updated for each student. Administrators also have the ability to edit details of the meetings and events, and they can update event details by using the edit button. Furthermore, they will not need to set appointments between students and faculty one-by-one. Instead, they only need to log the availability slots for each lab and faculty, in which students can later set up appointments automatically through the system.

Task Scenario: Using our app, Jessica can quickly create a common itinerary for all candidates to attend some common events and make sure that there is no overlap between the different events times. Jessica can also adjust the schedule quickly in response to harsh weather or special situations and notify others through the app. Furthermore, Jessica can add available time slots for each professor/faculty and lab for students to set up appointments automatically.

Rationale: This feature is tailored to the clients' needs by providing a convenient feature to swiftly edit itineraries, ensuring efficient updates that effectively inform all participants. Additionally, administrators have the ability to add and modify new activities, categorized by type, which promotes a systematic approach to schedule management. This eliminates the need for administrators to individually email students, saving time and streamlining the process of confirming arrangements between students and professors for meetings.



Flow

Desktop

< Event

Professor

- Professor A >
- Professor B >
- Professor C >

Labs

Attractions

Dining

Other

Home Schedule Network Reinforcement Profile

Mobile

< Event

Professor

- Professor A >
- Professor B >
- Professor C >

Labs

Attractions

Dining

Other

Home Schedule Network Reinforcement Profile

< Event

Title _____

Time

Type Virtual In Person

Location _____

Link _____

Description _____

+Add

Finish

Home Schedule Network Reinforcement Profile

< Event

Title _____

Time

Type Virtual In Person

Location _____

Link _____

Description _____

+Add

Finish

Home Schedule Network Reinforcement Profile

Layout

4.3 Networking

On the left side of this interface, a range of questions is presented with filter tags. By clicking on a question on the left, the details of the question interface will be displayed on the right-hand side. Here administrators can also view and answer students' questions.

Task Scenario: Samantha expresses her interest in having a meal with current PhD students after the meeting to discuss related fields. She navigates to the "Current PhD" tab, but doesn't find the desired information. As a result, she posts a query seeking assistance. Shortly afterward, another student, having the same question, replies to her post. The administrator promptly responds, offering to facilitate connections with willing volunteer PhD students. A volunteering student studying the relevant field expresses enthusiasm and agrees to organize the event.

Rationale: We want to include this feature where users can post questions and receive responses from faculty or other attendees. Student users can also initiate a chat with someone who has responded to their question, allowing for easy communication and better scheduling. Additionally, it allows student users to connect with peers and seniors for questions, hangouts, and friends, which address the user's goal of gaining opportunities to meet and make conversations with more seniors. Meanwhile, this also minimizes the administrative burden of individually communicating with students and establishing and maintaining a communication platform.

Desktop

NETWORKING

Filter: All professor Incoming PhDs Current PhDs other

Create One!

Professor _____
Professor _____
Professor _____
Professor _____
Professor _____

Choose a question

Home Schedule Network Reinforcement profile

Mobile

NETWORKING

Filter: All professors Incoming PhDs Current PhDs other

create one!

Professor _____
Incoming PhDs _____
Current PhDs _____

choose a question

Home Schedule Network Reinforcement profile

NETWORKING

Filter: All professor Incoming PhDs Current PhDs other

Create One!

Professor _____
Professor _____
Professor _____
Professor _____
Professor _____

Title: _____

Description: _____

Genre: _____

Home Schedule Network Reinforcement profile

NETWORKING

Filter: All professors Incoming PhDs Current PhDs other

create one!

Professor _____
Incoming PhDs _____
Current PhDs _____

How can I learn more about specific professors' research interests during the PhD visit day?
 Genre: Professor
 Alice
 2023-9-25
 I'd like to know more about research projects and potential advisors.

ANSWERS:
 Prof. Thompson

Home Schedule Network Reinforcement profile

NETWORKING

Filter: All professor Incoming PhDs Current PhDs other

Create One!

Professor _____
Professor _____
Professor _____
Professor _____
Professor _____

How can I learn more about specific professors' research interests during the PhD visit day?
 Genre: Professor
 Alice
 2023-9-25
 I'd like to know more about research projects and potential advisors.

Answers:
 Prof. Thompson
 2023-9-25
 Attend research presentations and meet with professors during office hours

Home Schedule Network Reinforcement profile

NETWORKING

Filter: All professors Incoming PhDs Current PhDs other

create one!

Professor _____
Incoming PhDs _____
Current PhDs _____

Title: _____

Description: _____

Genre: _____

Home Schedule Network Reinforcement profile

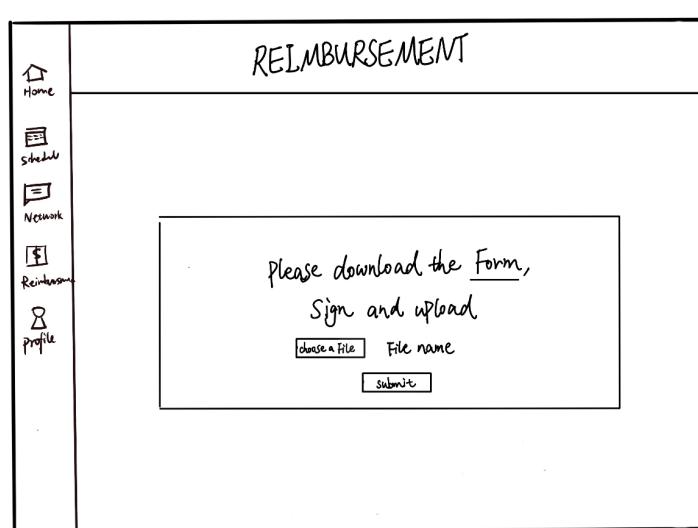
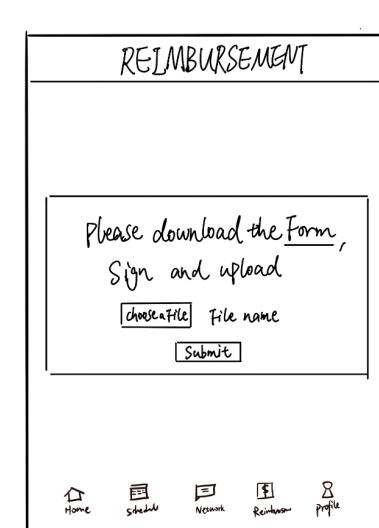
4.4 Reimbursement

PhD.Students

On this page PhD candidates can download the Reimbursement Form provided by Cornell and upload the file here.

Task Scenario: At the end of the three-day campus visit, Samantha is required to complete and submit a reimbursement form based on the expenses incurred during the three days. She downloads the reimbursement form from the app and fills out and signs the form and uploads it to the app and then submits it within the time limit.

Rationale: Students can download the reimbursement form directly from the reimbursement section of the app, upload it as soon as they complete it and then submit it. Administrators do not need to email the reimbursement form to each student, and students do not need to email the reimbursement form back.

| Desktop | Mobile |
|---|---|
|  |  |

Admins

Administrators can see the people and their documents that have been uploaded, as well as the list of those that have not yet been uploaded.

Task Scenario: Jessica is an office administrator from the information science department. Using our app, Jessica can easily verify the reimbursement form by reviewing all final reimbursement forms from PhDs uploaded to the app. The app provides a convenient and efficient way for Jessica to process the reimbursement by automating the process of creating reimbursement forms and providing a digital platform for submitting and tracking reimbursement requests. After reviewing the reimbursement form, Jessica can either approve by signing a digital signature or reject to notify PhDs to revise their reimbursement forms.

Rationale: The reimbursement amounts would also be calculated by the system to reduce efforts to compute for each student.

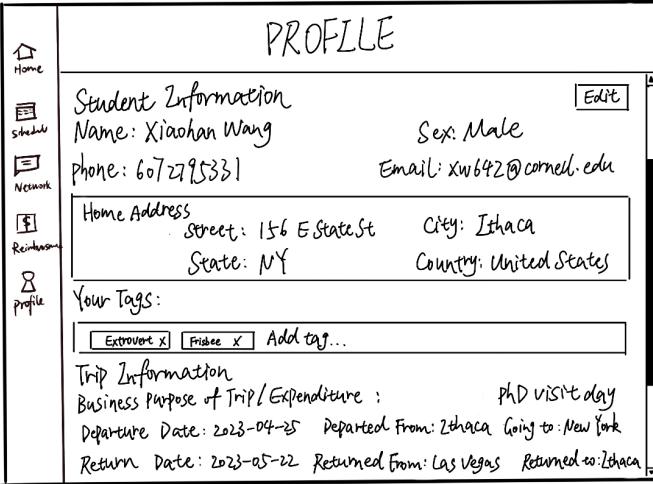
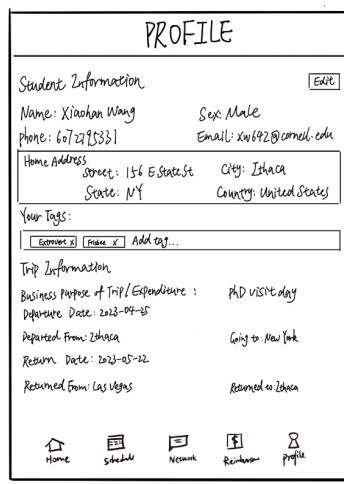
| REIMBURSEMENT | |
|-------------------------------|-------------|
| Home | |
| Schedule | |
| Network | |
| Reimbursement | |
| Profile | |
| Student | File |
| Emma | <u>Form</u> |
| Mike | <u>Form</u> |
| Alex | |
| John | <u>Form</u> |
| Jake | |
| Lisa | <u>Form</u> |

| REIMBURSEMENT | |
|-------------------------------|-------------|
| Home | |
| Schedule | |
| Network | |
| Reimbursement | |
| Profile | |
| Student | File |
| Emma | <u>Form</u> |
| Mike | <u>Form</u> |
| Alex | |
| John | <u>Form</u> |
| Jake | |
| Lisa | <u>Form</u> |

4.5 Profile

PhD.Students

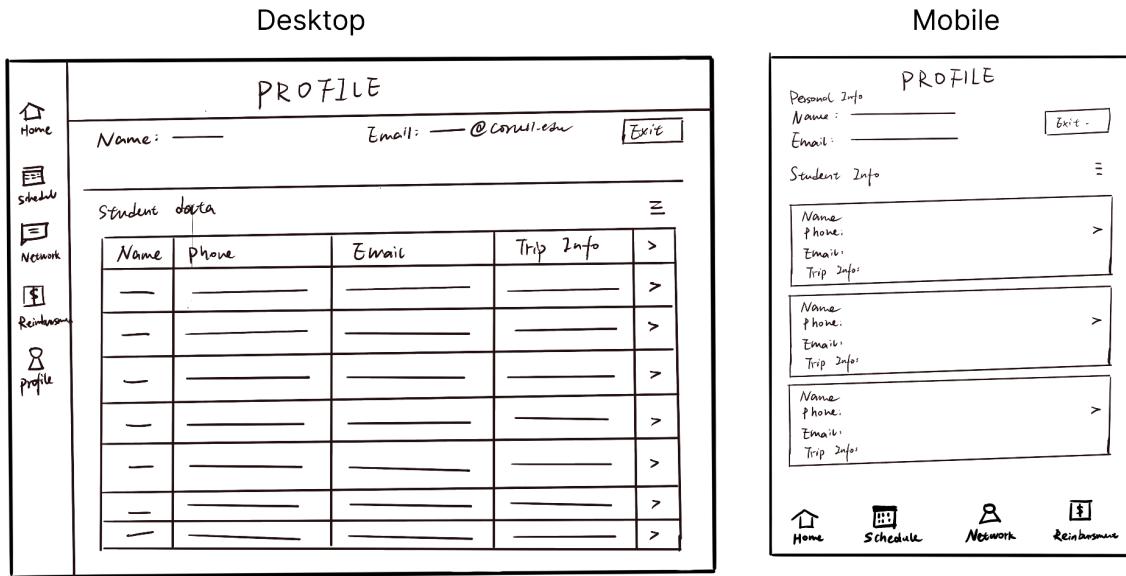
Within this interface, student users have the ability to input personal and travel details, and subsequently save the information by clicking on the button located below.

| Desktop | Mobile |
|--|--|
|  |  |

Admins

In the profile section, administrators will have access to their own basic information and also be able to manage and browse student data.

Rationale: Our app reduces admins' effort to collect information for each individual about their departure and arrival time as well as their living preferences. All of these would be in the dataset when students create their accounts.



Evaluation

1. Findings

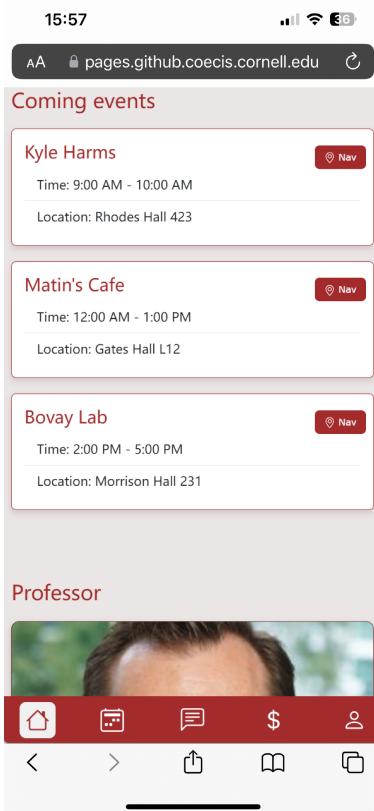
Overall, the feedback from all four participants was positive, with each participant indicating that they could effortlessly locate the necessary information for their visit day within the app. The app's design and functionality received a commendation, with special emphasis on the natural mapping principles implemented in the homepage information, calendar, networking forum, and profile sections. Moreover, the participants appreciated the color scheme, which corresponded with Cornell University's theme.

Nonetheless, some participants pointed out issues with certain layouts, such as the homepage card being excessively large and containing an abundance of information. Furthermore, a few participants encountered navigation challenges, including

overlapping functions for selecting and confirming calendar times and the necessity to return to the networking page's top to switch tabs after scrolling down.

Lastly, participants also reported a few bugs that require attention, such as the explore page not displaying correctly. The testing offered valuable insights that can be utilized to enhance the app's usability and resolve the identified concerns.

2. Process



We recruited a total of 4 participants for the usability testing, consisting of graduate students seeking Ph.D. opportunities and current Ph.D. students at Cornell University who had attended their visit day. Before the testing commenced, we obtained verbal consent from each participant and informed them about the test's purpose, the type of data to be collected, and their right to withdraw consent at any moment.

Throughout the testing, we employed the "think-aloud" method to gain a deeper understanding of the participant's interactions with the app and to detect any instances of confusion or frustration. As participants performed tasks within the app, we observed and documented our findings based on predetermined criteria.

Upon completing the testing, we analyzed the collected data and summarized our findings. Using these insights, we identified key areas for improvement and offered recommendations to augment the app's usability and overall user experience.

Contribution

Jinmo Huang - Designed interview questions, conducted user interviews, mapped out the affinity diagram, defined user personas and task scenarios for Ph.D. students, and contributed to group ideation and brainstorming sessions during the user research process. Created sketches for both mobile and desktop views, participated in brainstorming ideas for usability testing planning, drafted and refined testing tasks and evaluation criteria, conducted four testing sessions, and analyzed findings with the team. Coded the homepage and card list view.

Xiaohan Wang - Contributed to design interview questions, conduct 2 user interviews, participate in an affinity diagram, define user goals for PhDs, and join brainstorming sessions. Contributed to brainstorming and sketching activities. Contributed to Milestone 3 writeup, including drafting, revising for Milestone 2, providing clear explanations for neat sketches, and offering rationale for PhDs. Coded Networking feature. Modified the evaluation document. Fixed bugs in Networking and Profile pages based on user testing feedback and analyzed usability testing results.

Shenghao Shek - Contributed to the administrator persona, conducted 2 user interviews, designed interview questions, and participated in brainstorming sessions. Contributed to rough sketches, brainstorming, rationale, and task scenarios specifically for administrators, as well as document visualizations and organization. Coded Schedule feature and adjusted overall css of the app. Refined the evaluation document, fixed bugs, implemented improvements to the app based on feedback, and conducted usability testing analysis.

Leo Liu - Authored two task scenarios for administrators, conducted 2 user interviews, designed interview questions, and participated in brainstorming sessions. Contributed to brainstorming and ideation sessions, creating neat sketches for both mobile and

desktop views for PhD students and administrators. Participated in brainstorming ideas for usability testing planning, refined the evaluation document, fixed bugs, made app improvements based on feedback, and analyzed usability testing results. Coded the reimbursement page and helped publish the prototype.

Appendix

1. Planning

1.1 Protocol & Interview Questions

Hi, we are Cornell Students currently taking App Design class and have a recent project about creating an app to improve the experience for PHD students on visit Day. Do you have 10-15 minutes for a quick user interview?

1.1.1 For PhD students

General:

- Could you introduce your academic background and which year of PhD you are in?

Visit Day:

- What motivated you to attend the Cornell visit day, and what were your main goals and objectives for the visit day?
- Why did you choose Cornell for PhD?
- Is the visiting day an important factor for you to choose Cornell? Why?
- Did you attend the Cornell Tech visit day, the Ithaca campus visit day, or both? How were they different from each other?
- Where do you find the information regarding the faculty and labs? Do you find it easy?
- What activities and places would you like to visit that day to include?

Schedule:

- Can you walk me through your schedule for the visit day (or provide a schedule pdf if you have it), including any meetings with professors or other faculty members?

- How did you arrange your time, and was it flexible?
- Before the visit day, are you already accepted to the program and any assigned faculty?
- Are you required to talk with the faculty assigned? Do you have freedom to choose who to visit among faculties for visit day?
- Do you need approval from faculties before meetings? Are walk-ins allowed?
- What's the experience with setting up appointments with faculty?
- Does the schedule limit you for when to meet with faculty?
- Have you ever had to reschedule or cancel a PhD visit day, and if so, what factors contributed to that decision?
- What factors might contribute to cancel visiting?

Accommodation & Food:

- Where did you stay during your visit, and how was your experience with the accommodation?
- How was the food provided during your visit day? Was it provided, or did you have the option to choose where to eat?
- Were you interested in exploring some areas of the campus or Ithaca by yourself? Restaurant, landscape, etc

Expense Report:

- How did you manage to submit your expense report after the visit day, and did you face any difficulty uploading your receipts or expenses? If so, could you describe the problem and any steps you took to resolve it?

Travel:

- How did you get to your first destination (Ithaca or NYC), and how did you commute during your visit to Cornell?
- What is your most used mode of transportation on the visiting day?

Communication:

- How did you communicate with the staff during your visit, and how did you receive information or updates from them?
- Were there any changes to your schedule due to weather or any other unexpected circumstances?

Connections:

- How did you build connections with other PhD students or faculty members during the visit, and did you find it valuable?
- Do you know anyone when visiting the campus? Do you wish to know someone or Cornell student to take you around?

Comparison and Improvements:

- If you have visited other universities, how would you compare your experience at Cornell?
- Based on your visit day experience, do you think visit day is helpful? What do you think could be improved in terms of the overall experience and schedule for future visit days?

1.1.2 For Admins

General:

- What's your role in the information department?

Visit Day:

- How do you play roles on planning visit day?
- What's your experience with planning?
- What are some areas that can be improved?

Schedule:

- What's the experience like with the editing schedule?
- How can the experience be improved?

Accommodation & Food:

- What kind of resources do you provide for students?
- What is the feedback you received?
- What other resources do you think would be helpful?

Expense Report:

- How does handling reimbursements process like?
- In what ways can it be improved?

Travel:

- How do you plan travel for students?
- What happens when there is a special situation such as a storm?
- What can be implemented to make it more efficient and effective?

Communication:

- How do you communicate with students?
- In what ways can it be improved?
- How do you connect the communication between students and professors?

1.2 Interview data

[Script](#)

Interview 1

Wednesday, March 29, 2023 (Tech)

* This zoom link will be active for all information sessions below

Zoom:

<https://cornell.zoom.us/j/92414907299?pwd=WUZHditqUHIGNFILRWFGVDhQbUtGQT09>

Meeting ID: 924 1490 7299

Passcode: 168082

| | |
|---------------|---|
| 09:30 – 10:00 | Breakfast <i>Location: Bowtie Space</i> |
| 10:00 – 10:20 | Campus Introduction and Associate Dean's Welcome <i>Location: Tata 123</i> |
| 10:20 – 11:20 | Faculty 1:1 Meetings <i>Location: Tata 123</i> |
| 11:20 – 11:40 | Q&A with Students & Academic Affairs/Inclusion & Belonging <i>Location: Tata 123</i> |
| 11:40 – 12:00 | Housing Presentation <i>Location: Tata 123</i> |
| 12:00 – 13:00 | Current Student PhD Studen Panel <i>Location: Tata 123</i> |
| 13:00 – 13:30 | Lunch <i>Location: Bowtie Space</i> |
| 13:30 – 15:00 | Faculty 1:1 Meetings |
| 15:00 – 16:00 | Housing & Campus Tours <i>Location: The House/Campus</i> |
| 16:00 – 17:30 | Happy Hour <i>Bowtie Space</i> |

Tuesday, March 28, 2023

| | |
|----------------|---|
| 08:00 – 10:00 | Breakfast <i>Location: Statler Ballroom</i> |
| LEAP Gathering | |
| 09:00 – 10:00 | <p><i>(LEAP is an Alliance of 11 top computer science programs to increase the diversity of the future leadership in the professoriate in computing, focusing on students who self-identify as African American, Black, Hispanic, Latinx, American Indian, Alaska Native, Native Hawaiian, Pacific Islander, persons with a disability)</i></p> |

Location : Gates 122

Zoom:

<https://cornell.zoom.us/j/95240827759?pwd=TDRLZUR2U29aY05EU1A1ZHJSQ0prQT09>

| | |
|-----------------------|---|
| | Lab tours |
| 09:00 – 11:00 | OR |
| Meetings with Faculty | |
| 10:00 – 11:00 | Campus Tour <i>Location: Meet at 9:45am in Gates 3rd Floor Lounge to walk to Martin Y. Tang Welcome Center</i> |
| | |
| 11:30 – 12:30 | Boxed Lunch <i>Location: Gates 310</i> <i>* Shuttle leaves at 12:30 right outside of Gates</i> |
| 12:30 – 14:00 | Break |
| 14:00 – 16:00 | Meetings with faculty |
| | |
| 18:00 | Welcome Reception Dinner <i>Location: Bloomberg Masters' Studio</i> |

Show tours

Tuesday, March 28, 2023

| | |
|---------------|---|
| 08:00 – 10:00 | Breakfast <i>Location: Statler Ballroom</i> |
| | LEAP Gathering <i>(LEAP is an Alliance of 11 top computer science programs to increase the diversity of the future leadership in the professoriate in computing, focusing on students who self-identify as African American, Black, Hispanic, Latinx, American Indian, Alaska Native, Native Hawaiian, Pacific Islander, persons with a disability)</i> |
| 09:00 – 10:00 | <i>Location : Gates 122</i> <i>Zoom:</i> https://cornell.zoom.us/j/95240827759?pwd=TDRLZUR2U29aY05EU1A1ZHJSQ0prQT09 |
| | Lab tours |
| 09:00 – 11:00 | OR |
| | Meetings with Faculty |
| 10:00 – 11:00 | Campus Tour <i>Location: Meet at 9:45am in Gates 3rd Floor Lounge to walk to Martin Y. Tang Welcome Center</i> |
| 11:30 – 12:30 | Boxed Lunch <i>Location: Gates 310</i> <i>*Shuttle leaves at 12:30 right outside of Gates</i> |
| 12:30 – 14:00 | Break |
| 14:00 – 16:00 | Meetings with faculty |
| 18:00 | Welcome Reception Dinner <i>Location: Bloomberg Masters' Studio</i> |

General:

- Could you introduce your academic background and which year of PhD you are in?
1-year PhD in Cornell tech, visited last year

Visit Day:

- What motivated you to attend the Cornell visit day, and what were your main goals and objectives for the visit day?
To have interviews and see if it's a good fit for the program
- Did you attend the Cornell Tech visit day, the Ithaca campus visit day, or both? How were they different from each other?
Students get to stay in Ithaca for 2 days and choose whether or not go to tech

Schedule:

- Can you walk me through your schedule for the visit day (or provide a schedule pdf if you have it), including any meetings with professors or other faculty members? Which parts of your schedule were arranged by you and which parts were assigned to you?
Google form - prof schedule/ available time for you

Don't need to worry about availability.

The meetings are in person or via zoom. One prof didn't show up and through email learned that she was on a vacation and had to reschedule one afterwards.

- How did you arrange your time, and was it flexible?
Nice. don't have to worry about it.

Accommodation & Food:

- Where did you stay during your visit, and how was your experience with the accommodation?
Hotel without a roommate. Downtown south of the commons, arranged
- How was the food provided during your visit day? Was it provided, or did you have the option to choose where to eat?
Catering, form stater hotel.

Expense Report:

- How did you manage to submit your expense report after the visit day, and did you face any difficulty uploading your receipts or expenses? If so, could you describe the problem and any steps you took to resolve it?
500\$ budget last year and the candidate covers the off-limit budget
Fill out a Google form after that and send an email.
3 weeks to get the response.

Travel:

- How did you get to your first destination (Ithaca or NYC), and how did you commute during your visit to Cornell?
Booked a ticket from Seattle to Ithaca cost 505\$
Don't need other travel since it's all planned out and mainly on the campus area
mainly use google map or follow people around campus so didn't need much planning
No subway use in NYC because it's also around the campus

Communication:

- How did you communicate with the staff during your visit, and how did you receive information or updates from them?
Email is the only way/ effective
- Were there any changes to your schedule due to weather or any other unexpected circumstances?
No

Connections:

- How did you build connections with other PhD students or faculty members during the visit, and did you find it valuable?
All students and staffs are on slack channel. It'd be good to stay connected and they get to reach out to each other on slack.

Comparison and Improvements:

- If you have visited other universities, how would you compare your experience at Cornell?
Virtually uw, uci university of maryland. bigger and more organized here.
- Based on your visit day experience, what do you think could be improved in terms of the overall experience and schedule for future visit days?
Could be better if not having that canceled meeting or having notice beforehand

Interview 2

General:

- Could you introduce your academic background and which year of PhD you are in?
1 year phd, visited last year and helped to organize this year's event

Visit Day:

- What motivated you to attend the Cornell visit day, and what were your main goals and objectives for the visit day?
I wanted to have some interviews and check if this PhD program was a good match for me. Mainly, I was interested in finding out about the funding options and the instructors.
- Did you attend the Cornell Tech visit day, the Ithaca campus visit day, or both? How were they different from each other?
stay in Ithaca for 2 days

Schedule:

- Can you walk me through your schedule for the visit day (or provide a schedule pdf if you have it), including any meetings with professors or other faculty members? Which parts of your schedule were arranged by you and which parts were assigned to you?
I had a meeting with six professors. I filled out a Google form indicating my available time slots and they scheduled the meetings accordingly. The meetings were either 4 in-person or conducted 2 via Zoom, so the schedule was pretty tight.
- How did you arrange your time, and was it flexible?
Overall good

Accommodation & Food:

- Where did you stay during your visit, and how was your experience with the accommodation?
I stayed in a hotel without a roommate. It was arranged for me and located downtown south of the commons. Don't know about this year but maybe now they have roommates.

- How was the food provided during your visit day? Was it provided, or did you have the option to choose where to eat?
Food was all provided by Cornell so I didn't need to eat out.

Expense Report:

- How did you manage to submit your expense report after the visit day, and did you face any difficulty uploading your receipts or expenses? If so, could you describe the problem and any steps you took to resolve it?
Last year, I had a budget of \$500, and any expenses beyond that were my responsibility. This year, the budget was \$600. After the visit day, I filled out a Google form and sent an email regarding my expenses. It took about three weeks to receive a response.

Travel:

- How did you get to your first destination (Ithaca or NYC), and how did you commute during your visit to Cornell?
I booked a flight from Berkeley to Ithaca and had dinner at the airport before boarding. Once I arrived in Ithaca, I didn't need any other form of transportation as everything was planned out and mainly in the campus area. On Sunday, I took a campus tour and used Google Maps for navigation.

Communication:

- How did you communicate with the staff during your visit, and how did you receive information or updates from them?
I receive emails from the administration and talked with the professors through emails for pre-interview and follow-up questions. For other questions, I used the Slack channel.
- Were there any changes to your schedule due to weather or any other unexpected circumstances?
No

Connections:

- How did you build connections with other PhD students or faculty members during the visit, and did you find it valuable?
All the students and staff were on a Slack channel, and I had the chance to talk to some of the students during my visit day. However, I didn't know anyone there personally.

Comparison and Improvements:

- If you have visited other universities, how would you compare your experience at Cornell?
The other 2, Info sci. The one in Berkeley is a similar size, and the rest is pretty similar
- Based on your visit day experience, what do you think could be improved in terms of the overall experience and schedule for future visit days?
It would have been really helpful if there was more time to interact with current grad students during the visit day. Last year, there was only an informational panel where six

grad students spoke to everyone. However, this year, ten students volunteered to take the candidates out in groups of 8-15 for dinner, with a budget of around \$20-\$25. The students can either pay for the dinner themselves or submit an expense. The PhD volunteers communicate with each other first through email then on slack to make arrangements for the dinner, such as choosing the dining place and assigning students to take out.

Interview 3

- What's your major:

Biomedical Engineering

- Before the visit day, are you already accepted to the program and any assigned faculty?

Yes got an offer letter from Cornell with an assigned faculty.

- Are you required to talk with the faculty assigned? Do you have freedom to choose who to visit among faculties for visit day?

No requirement but certainly will contact the faculty. Can choose any faculties and labs in the related field. Flexible.

- Do you need approval from faculties before meetings? Are walk-in allowed?

Need to schedule ahead. Can walk in to visit labs but had to schedule appointments first.

- What's the experience with setting up appointments with faculty?

it's pretty smooth. Contact via email. In email: her research interest why interested in prof

- Does the schedule limit you for when to meet with faculty?

yes. Some prof might be busy and there may be other students who are also interested in meeting with the same faculty members

- Have you ever had to reschedule or cancel a PhD visit day, and if so, what factors contributed to that decision?

yes. Canceled visit day at University of Rochester. It's safe school and declined the offer and visit day after getting offer from Cornell

- What factors might contribute to cancel visiting?

maybe distance and school reputation? No appropriate prof for her research interest.

- Would it be helpful if you have personalized recommendations or suggestions when planning a PhD visit day?

absolutely. That would be pretty helpful. I don't have enough time planning for visit days, especially for those who wanted to visit multiple schools. R and S will be a great help of choosing hotel and restaurant. Save time

- Why did you choose Cornell for PhD?

Reputation and great profs to work with. Good ranking in bio and enough stipend

- Is the visiting day an important factor for you to choose Cornell? Why?

I don't think it is the most important one but it still mattered. The weather and location of university matter bc it will take me 4 or 5 years to live here. But the most important factor is prof and major ranking.

- What's the common process for a visiting day?

Contact prof via email and schedule appointments. Visit day started with welcome and intro of Cornell. Then attending events and meeting with faculties. Also, there was a campus tour and social events.

- Where do you find the information regarding the faculty and labs?

University Websites. Some from peers and undergrad professors

- Do you find it easy?

Yeah pretty easy i think. Of course it would be great if showed in an certain app.

- Do you think visit day is helpful? What are some aspects that can be improved?

Super helpful. But I heard that there were just some virtual visit day during covid. What a pity.

- Do you know anyone when visiting the campus? Do you wish to know someone or Cornell student to take you around?

Just prof assigned but never met him before. Of course! I think one of the greatest thing in visit day is social and meeting peers.

- Were you interested in exploring some areas of the campus or ithaca by yourself? Restaurant, landscape,etc

I'd love to but I don't think I have enough time and passion to do it especially after attending lots of events during visit day.

- What do you think of the reimbursement process for visiting? Is it complicated?

I think it is simple. The visiter only need to fill in a form, but the submit is complicated it can not be done online.

- What is your most used mode of transportation on the visiting day?

drove here

Interview 4

- What's your major:

Information Science

- Before the visit day, are you already accepted to the program and any assigned faculty?

Yes for both. Got an offer but not accepted yet. Got referred by some professor and be assigned to talk to them; but feel free to talk any faculty

- Are you required to talk with the faculty assigned? Do you have freedom to choose who to visit among faculties for visit day?

No. we're free to choose anyone to talk with unless they are not available. but it's fine if we make an appointment before visiting.

- Do you need approval from faculties before meetings? Are walk-ins allowed?

Need to schedule with prof. can't walk in.

- How to contact with prof?

Previous person he worked with, or co-email them

- What's the experience with setting up appointments with faculty?

Via email; But Hard to get response unless with mutual contacts

- Does the schedule limit you for when to meet with faculty?

Yes.

- Have you ever had to reschedule or cancel a PhD visit day, and if so, what factors contributed to that decision?

No. but visited UC Sandiego. I think UCSD is far away and environment is unfamiliar.

- What factors might contribute to cancel visiting?

Maybe weather? Storm or sth

- Would it be helpful if you have personalized recommendations or suggestions when planning a PhD visit day?

Sure why not? It always takes a lot of time finding hotels and restaurants.

- Why did you choose Cornell for PhD?

funding more, person who work with, good reputation

- Is the visiting day an important factor for you to choose Cornell? Why?

Yes. Know more about cornell and get familiar with the environment

- What's the common process for a visiting day?

Looking at schedule; find labs interested; talk to people there; appointment time: half an hour to 1 hour; can skip labs.

- Where do you find the information regarding the faculty and labs?

Official department website and from prof.

- Do you find it easy?

Year easy to me. But it take me a lot of time to check those info before application

- Do you think visit day is helpful? What are some aspects that can be improved?

It's pretty helpful. Just worry about the weather there. And told before: Hard to get response unless with mutual contacts

- What do you think of the reimbursement process for visiting? Is it complicated?

food & stay accommodation in downtown; give receipts(pic) ; submit thru email or in person; it is not complicated bc can submit after a while.

- What is your most used mode of transportation on the visiting day?

Drove here

Interview 5

- Before the visit day, are you already accepted to the program and any assigned faculty?
NO

- Are you required to talk with the faculty assigned? Do you have freedom to choose who to visit among faculties for visit day?
We can choose the professors to meet with and the department will arrange the meeting for us.
- Do you need approval from faculties before meetings? Are walk-in allowed?
We would follow the schedule. No walk-in
- What's the experience with setting up appointments with faculty?
We can only set up appointments with our own department professors. And then we will be emailed a pdf schedule.
- Have you ever had to reschedule or cancel a PhD visit day, and if so, what factors contributed to that decision?
No
- Would it be helpful if you have personalized recommendations or suggestions when planning a PhD visit day?
Yes! Very helpful.
- Is the visiting day an important factor for you to choose Cornell? Why?
Very important. Because we can talk to professors and students who already work here and learn more.
- What's the common process for a visiting day?
I went to Cornell tech first. I didn't need to meet professors there. So I attended some lectures that were arranged by the department. There was a specific schedule for all the students. It told us when to eat breakfast, when to take the bus etc. There was another schedule for each student, and it told students when and where to meet with professors.
- Where do you find the information regarding the faculty and labs?
Their personal website. But I think it is better to consult with the PhDs who already work here.
- Do you think visit day is helpful? What are some aspects that can be improved?
Yes. I think it is good enough
- What activities and places would you like to visit that day to include?
Attend the lectures, meet with PhDs who have already worked here
- Do you know anyone when visiting the campus? Do you wish to know someone or Cornell student to take you around?
No and Yes
- What do you think of the reimbursement process for visiting? Is it complicated?
We need to email the office administrator the receipts.
- What is your most used mode of transportation on the visiting day?
Bus

Interview 6

Nutritional Science PHD

- Before the visit day, are you already accepted to the program and any assigned faculty?
NO

- Are you required to talk with the faculty assigned? Do you have freedom to choose who to visit among faculties for visit day?
We can choose the professors that we're interested in and the administrator would make the schedules for us and email them to us.
- Do you need approval from faculties before meetings? Are walk-in allowed?
We would follow the schedule. No walk-in
- Have you ever had to reschedule or cancel a PhD visit day, and if so, what factors contributed to that decision?
No
- Is the visiting day an important factor for you to choose Cornell? Why?
Yes, definitely was.
- What's the common process for a visiting day?
We just came to the Ithaca campus. Our department was a little bit different, but they had us stay at the Statler Hotel. The next day we started doing the recruitment weekend. We would have breakfast on campus, and we'd go through like question answers and then we'd go into the interviews with faculty. So we'd have a schedule where we had the times that we would meet with the faculty members, whatever building or room number they were in. And we'd have lunch and then finish interviews. And then in the evenings we'd have something more social. I think we went to Big Red Barn. And then the next day was kind of similar. You had interviews but maybe like a half day. And then the rest we went to a winery and then we went bowling for recruitment.
- Where do you find the information regarding the faculty and labs?
Their personal website. I know the room number of the labs from the schedule but I have to figure out where it is.
- Do you think visit day is helpful? What are some aspects that can be improved?
Yes. I think it is good enough
- What activities and places would you like to visit that day to include?
The department has already arranged all the activities. I didn't go anywhere after dinner because i was tired
- Do you know anyone when visiting the campus? Do you wish to know someone or Cornell student to take you around?
No and I don't care
- What do you think of the reimbursement process for visiting? Is it complicated?
I don't remember.
- What is your most used mode of transportation on the visiting day?
Bus/van
- Is the weather information important to you when you come to visit today?
It was during February so it was really cold, but I guess if it's snowing I didn't know how cold it got, so I didn't really understand how that was important at that time. I don't really realize how cold it is until I am there and then I know it gets really cold.

Interview 7

- Before the visit day, are you already accepted to the program and any assigned faculty?

No

- Are you required to talk with the faculty assigned? Do you have freedom to choose who to visit among faculties for visit day?

Yes and Yes

- Do you need approval from faculties before meetings? Are walk-ins allowed?

Cannot remember

- What's the experience with setting up appointments with faculty?

Very easy. Department secretaries do all the jobs

- Does the schedule limit you for when to meet with faculty?

A little bit

- Have you ever had to reschedule or cancel a PhD visit day, and if so, what factors contributed to that decision?

No

- Would it be helpful if you have personalized recommendations or suggestions when planning a PhD visit day?

Yes! Very helpful.

- Why did you choose Cornell for PhD?

Faculty seems nice. Better job market placement

- Is the visiting day an important factor for you to choose Cornell? Why?

Play a role but not super important

- Where do you find the information regarding the faculty and labs?

Their personal website

- Do you find it easy?

Yes

- Do you think visit day is helpful? What are some aspects that can be improved?

Yes. Longer period to meet more professors will be better.

- What activities and places would you like to visit that day to include?

Meet more faculty members and more 1 on 1 meetings with current phd students

- Do you know anyone when visiting the campus? Do you wish to know someone or Cornell student to take you around?

Yes and Yes

- Were you interested in exploring some areas of the campus or ithaca by yourself?

Restaurant, landscape,etc

Yes

- What do you think of the reimbursement process for visiting? Is it complicated?

Straightforward. No

- What is your most used mode of transportation on the visiting day?

Hotel shuttle

Interview 8

Barbara

General:

- What's your role in the information department? Advisor, Coordinator

Visit Day:

- How do you play roles on planning visit day? Coordinating with two other coordinators
- What's your experience with planning? There is so much data to handle.
- What are some areas that can be improved? Technologies that can help handle data

Schedule:

- What's the experience like with the editing schedule? I have to adjust each one for each student. There are two pdf respectively for faculty and itinerary.
- How can the experience be improved? Make the edit process more efficient

Accommodation & Food:

- What kind of resources do you provide for students? Provide food and living
- What is the feedback you received? Mostly satisfied
- What other resources do you think would be helpful? Including information for transportation, accommodation, etc

Expense Report:

- How does handling reimbursements process like? Students submit a google form and admins need to process the data from there.
- In what ways can it be improved? I hope the data can be more organized.

Travel:

- How do you plan travel for students? We offer bus and students need to book the flight.
- What happens when there is a special situation such as a storm? We have to make call to rearrange the transportation.
- What can be implemented to make it more efficient and effective? To notify students and changed the schedule accordingly in efficient manner.

Communication:

- How do you communicate with students? Emails
- In what ways can it be improved? Too many emails are easy to get messy. App message system can be helpful
- How do you connect the communication between students and professors? I play a role as a middleman to set up the appointment.

1.3 Affinity Diagram



2. Design

Sketches

3. Evaluation

3.1 Tasks

Home

Task 1: Check the opening time and location of the botanic garden.

Task 2: Check what's the next event and how to get there.

Schedule

Task 1: Schedule a meeting with Prof. Leshed on day 1.

Task 2: Cancel your visit to Reid Lab.

Task 3: Plan your visit to the Herbert F. Johnson Museum of Art.

Networking

Task 1: Ask current PhDs questions about life experiences in Ithaca.

Task 2: Reply to a question about incoming Ph.D. students.

Reimbursement

Task 1: Download a reimbursement file.

3.2 Evaluation criteria

- Task Success: Measure the success rate of users in completing the networking tasks assigned to them.
- Time to Complete Task: Measure the time taken by users to complete each task, from browsing questions to initiating a chat with someone who responded to their post.
- Error Rate: Count the number of errors users make while browsing questions, posting their own questions, or initiating chats with other users.
- Satisfaction: Gather feedback from users on their overall satisfaction with the features of the app.
- Navigation: Test how easily users can navigate through the pages.

3.3 Usability testing data

Home

Task 1: Check the opening time and location of the botanic garden.

| | P1 | P2 | P3 | P4 |
|-----------------------|-----|-----|-----|-----|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 48s | 50s | 34s | 35s |
| Error Rate | 0 | 0 | 0 | 0 |

| | | | | |
|--------------|--|--|-------|---------------|
| Satisfaction | Have no problem with it, only the cards on the homepage are too big now. | Makes sense that the users can find the information on the homepage. | Great | Overall good. |
| Navigation | Great | Great | Great | Great |

Task 2: Check what's the next event and how to get there.

| | P1 | P2 | P3 | P4 |
|-----------------------|------------------------------|---|---|-------|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 16s | 22s | 16s | 15s |
| Error Rate | 0 | 1 | 0 | 0 |
| Satisfaction | Very self-explanatory to me. | It feels like the navigation button should guide you from the current location to the event location. | I don't understand why the third card has no navigation button. | Great |
| Navigation | Great | Great | Great | Great |

Schedule

Task 1: Schedule a meeting with Prof. Leshed on day 1.

| | P1 | P2 | P3 | P4 |
|-----------------------|---------------------------|-------------------------------|-------------------------|-----------------------------------|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 2 min | 1 min 30s | 1min | 1min 27s |
| Error Rate | 3 | 1 | 0 | 1 |
| Satisfaction | I think it's awesome that | Overall great experience. One | Looks a lot like Google | I find it visually helpful to use |

| | | | | |
|------------|--|--|--|---|
| | we can arrange our schedule like this. | thing is that the user can see all the details about the professor on the homepage so there's no need to open it. | Calendar to me, so I picked up pretty quickly, and I quite like that. | different colors to distinguish between events. |
| Navigation | I initially believed that tapping the "select" button would complete the task, however, it redirected me to the schedule page with a green overlay. I was able to understand the process, but it was initially perplexing. | Tap on the cards on the homepage to see only information about the professor, it could be better if the users can also schedule appointments | Have no problem with the design, and it feels natural to add events like this. | The "add" button was blocked by the navigation bar. |

Task 2: Cancel your visit to Reid Lab.

| | P1 | P2 | P3 | P4 |
|-----------------------|-------|-------|-------|-------|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 8s | 8s | 6s | 7s |
| Error Rate | 0 | 0 | 0 | 0 |
| Satisfaction | Great | Great | Great | Great |
| Navigation | Great | Great | Great | Great |

Task 3: Plan your visit to the Herbert F. Johnson Museum of Art.

| | P1 | P2 | P3 | P4 |
|--------------|-----|-----|-----|-----|
| Task Success | Yes | Yes | Yes | Yes |

| | | | | |
|-----------------------|--|-------|---|--|
| Time to Complete Task | 1 min 43s | 20s | 30s | 56s |
| Error Rate | 3 | 0 | 0 | 1 |
| Satisfaction | I thought it was interesting so I also tried to add other events. | Great | I think it is very good, but I noticed when selecting in the calendar, the attraction event block seems to be much bigger than other types of events. | The card list is really big on the screen? I can only see one or two cards here. |
| Navigation | When you click on the card in explore, a blank page will appear. And I tried for the lab page but that works well. | Great | Great overall. | Tapped on the explore and cannot schedule after that. Tried another way and finished the task. |

Networking

Task 1: Ask current PhDs questions about life experiences in Ithaca.

| | P1 | P2 | P3 | P4 |
|-----------------------|---|-------|--|-------|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 1min 37s | 53s | 1 min 23s | 57s |
| Error Rate | 2 | 0 | 1 | 0 |
| Satisfaction | I feel that this feature is very useful, but it does not look like the interface that a mobile app will have. | Great | Overall not bad, only the submit button will be blocked by the navigation bar below. | Great |
| Navigation | | Great | I'm okay with | Great |

| | | | | |
|--|--|--|---|--|
| | | | this part as long as there aren't any bugs. | |
|--|--|--|---|--|

Task 2: Reply to a question about incoming Ph.D. students.

| | P1 | P2 | P3 | P4 |
|-----------------------|---|---|---|-------|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 50s | 53s | 30s | 21s |
| Error Rate | 1 | 1 | 0 | 0 |
| Satisfaction | I think it is very clear what I can do in this page. | It looks nice to me, but the "Choose a question" displayed below at the beginning makes me not quite clear what this part does. | Don't know and not really sure. It seems to work just fine to me but I feel like the layout of the components is not quite intuitive. | Great |
| Navigation | It seems like it would be more effective to present this as a post rather than a separate section? Then remove the choose a question and add a side navigation bar? That's what I'm thinking. | Great | Great | Great |

Reimbursement

Task 1: Finish the reimbursement process.

| | P1 | P2 | P3 | P4 |
|-----------------------|-------|-------|-------|-------|
| Task Success | Yes | Yes | Yes | Yes |
| Time to Complete Task | 14s | 12s | 16s | 14s |
| Error Rate | 0 | 0 | 0 | 0 |
| Satisfaction | Great | Great | Great | Great |
| Navigation | Great | Great | Great | Great |

*Here, we use "great" to exclude the aspects that are already satisfactory and free from issues.