Executive Weekend Support App

Sprint #3: Final Design Report

Dean D’souza
FNU Arun
Princess Dianne Bungay

Overview

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  - Main Facts and Assumptions
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Team Overview

- Dean D’souza
  - Team Leader, Paper Prototyping, Software Prototyping
- Princess Dianne Bungay
  - Secretary, Software Wireframing, Software Prototyping
- FNU Arun
  - Documentation, Paper Wireframing, Software Prototyping

Project Overview

Project Background

The Executive course offered by Harrisburg University is a convenient way for working professionals (as well as full time students) to pursue their higher education without having to visit the campus every day. However, this convenience comes at the cost of students being unfamiliar with the area and the campus in general.

With the addition of new subjects and programs, even professors and newly hired faculty can have trouble in navigating the campus, finding ways to kill time or finding places to grab a bite to eat during their free time.

This project attempts to address some issues by providing the foundations for an Executive Weekend Application to make every visit to the University a pleasant one.

Competitive Landscape Statement

There exist a number of mobile applications that effectively perform the individual functions that would be a part of the application, and we can take inspiration from some of them such as:

- Studentuniverse (For travel options)
- Yelp (For suggestions on places to eat)
- Google Maps (For routes from hotels to the campus)
- Uber/Lytt (For getting to campus and ride sharing)
- Moodle Mobile Application (For assignment reminders and other notificaitons)

We can also take inspiration from other sources such as:

- University displays (For subject classrooms and wifi information)
- Help Desk Personnel (For answering most asked questions)
- University website (For suggestions on accommodations)
- University blueprints or layouts (For giving an idea of where classrooms are)

Main Facts and Assumptions

Facts

- Students refer to either the university displays or the myhu.harrisburgu.edu website for details about class timings and location
- Most students who book a hotel for the previous night, travel to the campus via Uber/Lyft
- Very few of students wait after lectures are over for their train or flight back home

Assumptions

- Few students travel by train or by flight to the university
- Most students eat at Subway or at Strawberry Square Mall
- Few students book hotels to stay the night before the executive weekend visit
- Few students know about the general layout of the campus
- Professors tend to know the most about the campus and nearby events

Key Questions from Question Storming

DOMAIN

- What do we know about Harrisburg University?
- What do we know about the areas around the school?
- What do users need on Executive visits?

PAIN POINTS

- Where to get a ride?
- Where is my classroom?
- Where to get Vegan food?
- How do I use the elevators?

MANDATE

- Do we fully understand the scope of this application?
- Do we know which platforms to use to develop the app?
- Who will use this app?

TASKS

- Do we want to survey people?
- How much information do we put in the app?
- How do we want the users to give us feedback of the app?

Key Users Statement

The key users of this application are students and professors of Harrisburg University Executive Program.

Both of the type of users are concerned with navigating the campus efficiently while having all required and necessary information available to them at all times.

However for the most part, students are more concerned with their travel and accommodations for each trip and submitting their assignments on time, while professors are more concerned with helping students, having additional knowledge of the campus and the neighbourhood and keeping students informed about changes to their course.

Problem Statement

The students and faculty of the Harrisburg University Executive Weekend Program want to improve their academic and social experiences around the university through accurate information on resources and opportunities such as class information and schedules, travel and exploration opportunities, and campus facilities.

UCD Ideation Process Milestones

1. Design Sprint 1
    a. Dean D’souza - Project Idea, Competitive Landscape Statement, Main Facts and Assumptions, Key Users Statement, Persona 1
    b. FNU Arun -Refined Problem Statement, Photographing in-class materials, Key Users Statement, Persona 2
    c. Princess Dianne Bungay -Key Questions from Question Storming, Main Facts and Assumptions, Key Users Statement, Persona 3
2. Rule of Seven Squared Exercise
    a. Dean D’souza - george persona
    b. FNU Arun - amy persona
    c. Princess Dianne Bungay- olga persona

UCD Ideation Process Milestones

1. Design Sprint 2
    a. Dean D’souza - Prototypes early ideas
    b. FNU Arun - Wireframes
    c. Princess Dianne Bungay - Design and style Guidelines
2. Tests and Risks Reflection
    a. Dean D’souza - George Persona
    b. FNU Arun - Amy Persona
    c. Princess Dianne Bungay - Olga Persona

UCD Ideation Process Milestones

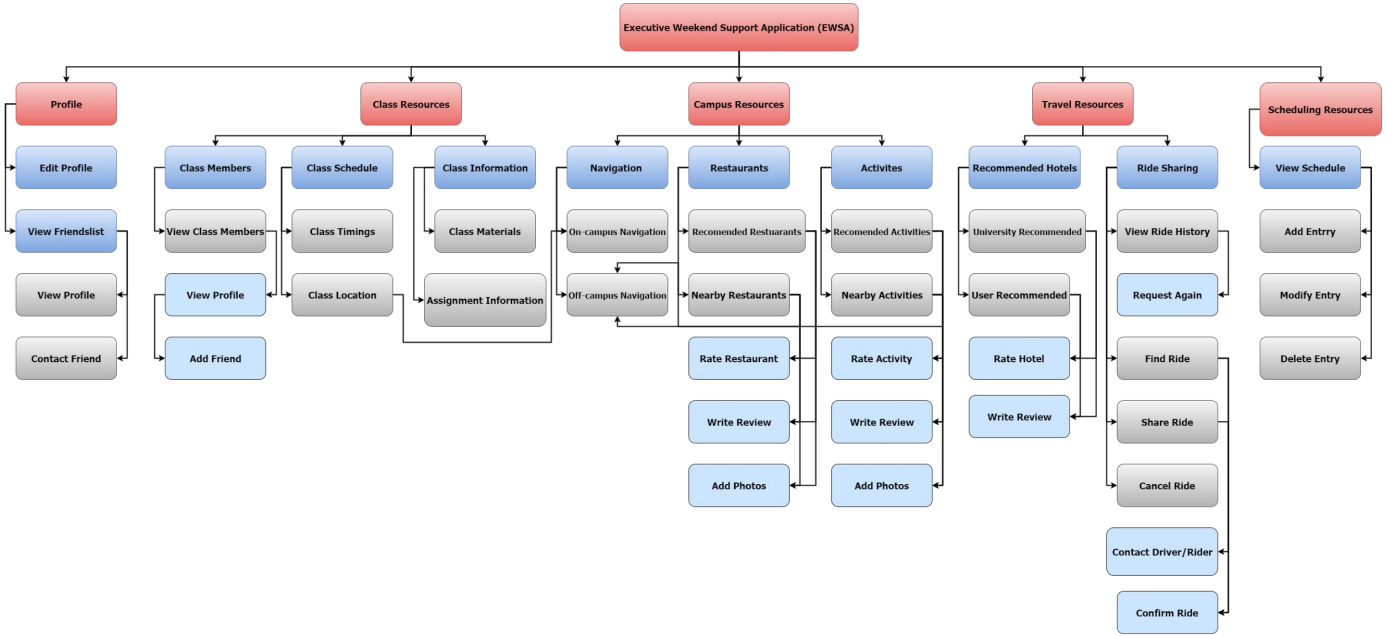
1. Design Sprint 3
    a. Dean D’souza - Prototype construction
    b. FNU Arun - Prototype construction
    c. Princess Dianne Bungay - Wireframe construction

Content and Image Creation

- Background and element tones: Tweaked in the code
- Icons: Can use stock images or make new icons in Adobe Illustrator or even Photoshop
- Images: Most images from restaurants and activities are left to the user to upload. Initial set can be taken from the respective websites and then tweaked with Adobe Photoshop.
- Maps: Route and vicinity maps can be fed in through Google Maps API (application program interface) and map-making APIs for the university grounds

Information Architecture

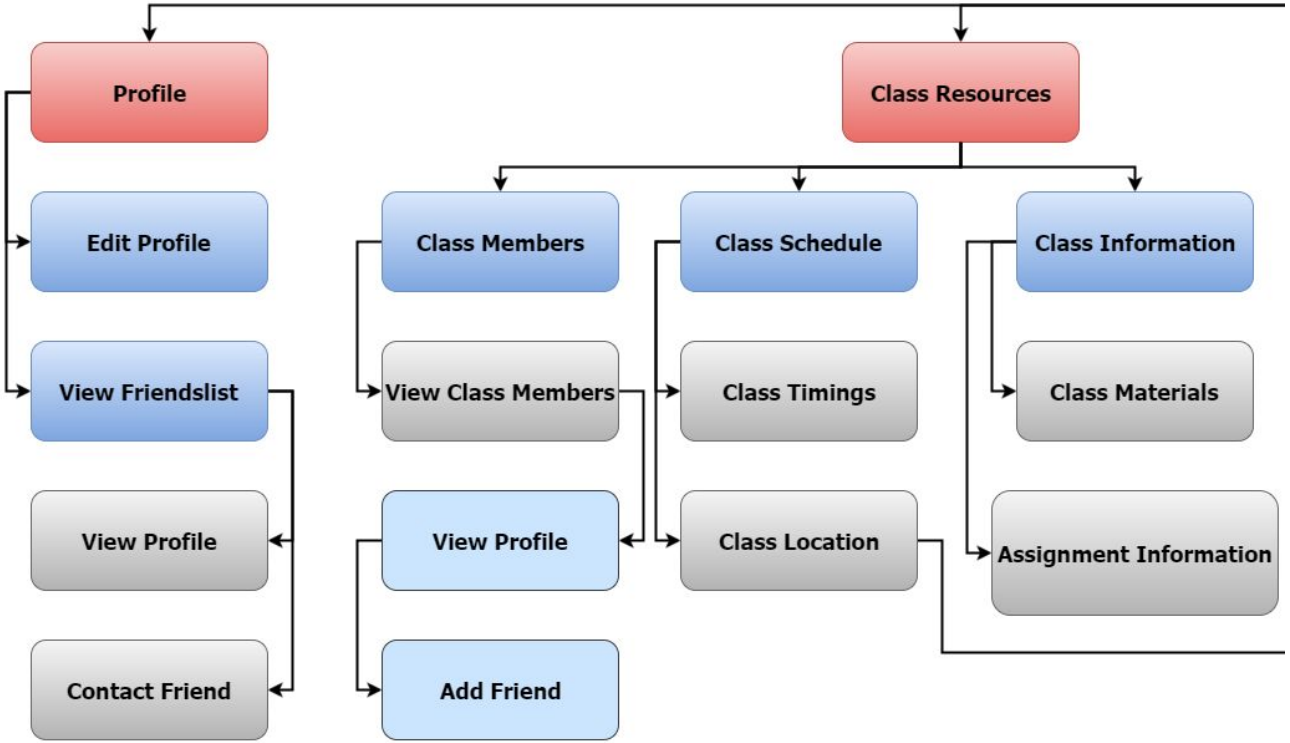
The general information architecture of the proposed application is as follows:



Legend:

Red	1st Tier
Blue	2nd Tier
Grey	3rd Tier
Light Blue	4th Tier

Information Architecture (Breakdown)



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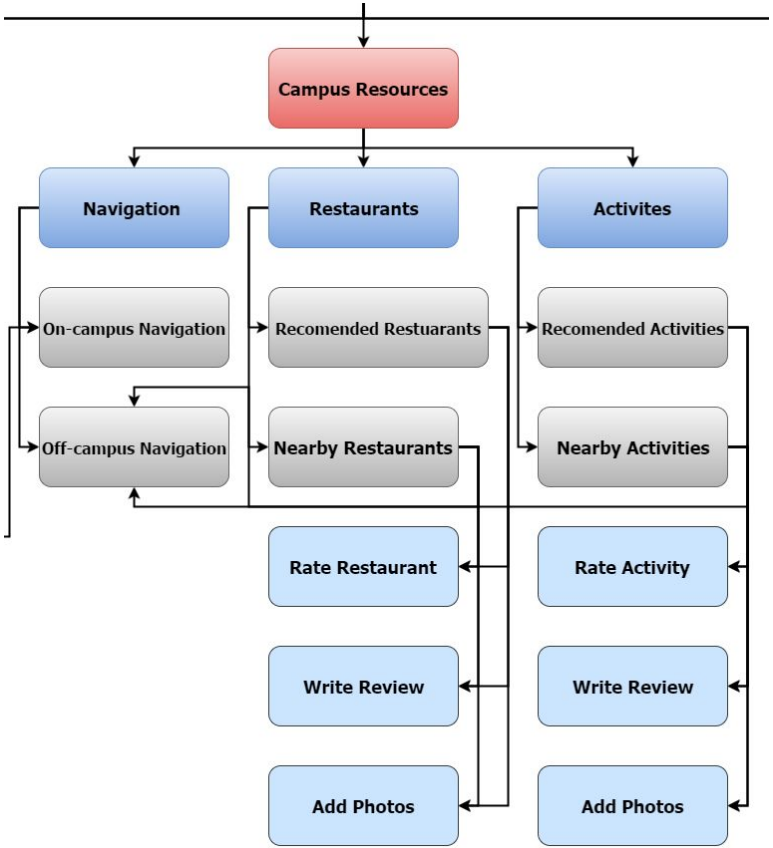

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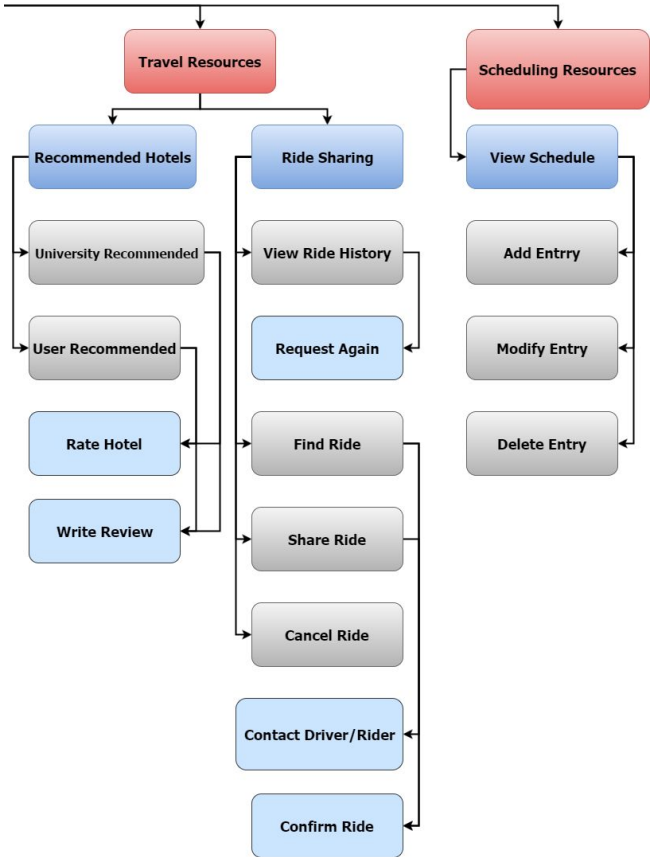


Design & Style Guide: Shneiderman

1. **Strive for consistency.** There will be consistent actions and terminologies throughout the screens. For example, the Menu icon will always be present and consistent in all screens.
2. **Cater to universal usability.** The app will be designed for both first time users (beginners) to frequent users (expert). We will allow users to customize their main dashboard to their favorite actions while providing default actions for beginners. Icons may be accompanied with labels/explanations.
3. **Offer informative feedback.** Feedback mechanisms that will be implemented in the app can be as simple as highlighting a selection or a dialog box informing a user of a setting he just set up.
4. **Design task-flows to yield closure.** One use case of the Executive Weekend App is the ability to ride share with nearby students to save commute expenses. This process includes entering source and destination, searching for nearby students, selecting a ride-share group and confirming ride-share details. This entire process can be displayed on the screen with steps to show task-flow, and automatically going back to main menu to signal completion of task.

Design & Style Guide (continuation)

5. **Prevent errors.** The app will be designed to prevent invalid user inputs and properly showing user-friendly error messages if unexpected issues arise.
6. **Permit easy reversal of actions.** There will be back or cancel buttons to allow for reversal of individual actions. The users will, however, always have a choice to start over if they so desire.
7. **Make users feel *they* are in control.** A feature of the app includes the ability to snooze or reschedule reminders for class or other activities. The users will be the initiators of actions, not responders. The app also ensures that user confirmation is taken at every step and gives options to cancel all actions.
8. **Minimize short-term memory load.** The short term memory of a human can only hold 5 items at a given time. The app will be designed so multi-page actions can be consolidated to up to 5 screens only. For example, nearby restaurant search results can be up to items on first load (but this can be configurable).

Personas

Persona 1: George, the scatterbrain

Name: George
Age: 23
Occupation: Full-time student

"I'm going to be a straight A student. If I can figure out how to manage everything."

About George:

George finished his bachelor's degree as one of the top of his class. After which, he worked for while as a computer technician for a major corporation. After a year and a half of working he decided that he wanted to get a Master's Degree. He chose Harrisburg University for the convenience of learning while staying with his family in New York, but due to being a bit of a scatter brain, he tends to easily forget which classroom he needs to go to next, what he needs to have on him and usually ends up forgetting to book tickets for travel early.

Sees

- Schedule for classes
- Discrepancy in courses taken
- Time between lecturers
- Time before his train departs

Does

- Books travel tickets late
- Asks at the help desk about his query
- Gets something to eat from the Deli next door
- Waits on campus till it's time to depart

Thinks

- Book tickets once home
- Search for the general information email he had received
- Grab something to eat nearby
- Nothing to do on campus in the evening

Feels

- Sure that he will remember to book tickets
- Confused about what he should refer or who he should ask first
- Hungry and worried about being late for the next lecture
- Bored and tired of waiting for the train

Persona 2: Amy, the diligent student

Name: Amy
Age: 25
Occupation: Part-time student (Cancer Research Assistant)

"I love technology! It's too bad technology doesn't always love me"

About Amy:
Amy completed her first masters in biotechnology and had been working as a junior cancer research assistant in Richmond, VA for two years. She decided to learn more about computers and get a second masters while still being able to continue working. She hopes to learn coding and implement this to build models for her research activities.

Sees

- Getting good grades
- Access to good libraries
- Working with students and faculty to maximise effectiveness of the learning process
- Travel time from her home to the university

Does

- Checks with other students and groups on facebook on which courses to take
- Uses scheduling apps to help track the class timings and assignment due dates
- Drives to and from the university

Thinks

- Need to schedule time in order to juggle between studies and work
- Needs to plan trips to and from the university effectively
- Needs to find out more about future subjects

Feels

- She may miss assignment deadlines
- Might not take the correct combination of courses
- She might be late for class if there is too much traffic

Persona 3: Olga, the Organizer

Name: Olga
Age: 42
Occupation: Learning Technologies Professor

"I like things simple and efficient."

About Olga:
Olga has been teaching for more than 20 years in Terre Haute, IN. She recently moved to Philadelphia, PA with her husband and daughter for her husband's job. She is neat, punctual and organized. She likes to plan in advance to make the most of her time. Her level of confidence with technology is intermediate: she has a smartphone but with only the basic apps. She always has a pen and notebook with her.

Sees

- Students who seem lost or just hanging out on the corridors
- Activity/events boards of what's happening this week
- Parking space availability

Does

- Tries to help out lost students
- Plans her itinerary for the day
- Packs her lunch
- Look for a quiet room to meditate or relax

Thinks

- She should get a campus map
- Where to park her car
- The shortest path between her classes to save time and effort
- How to contact Technical personnel with issues on devices

Feels

- Enjoys interacting with students and co-teachers
- Accomplished when everything goes as planned
- That she should pay it forward when someone helps her

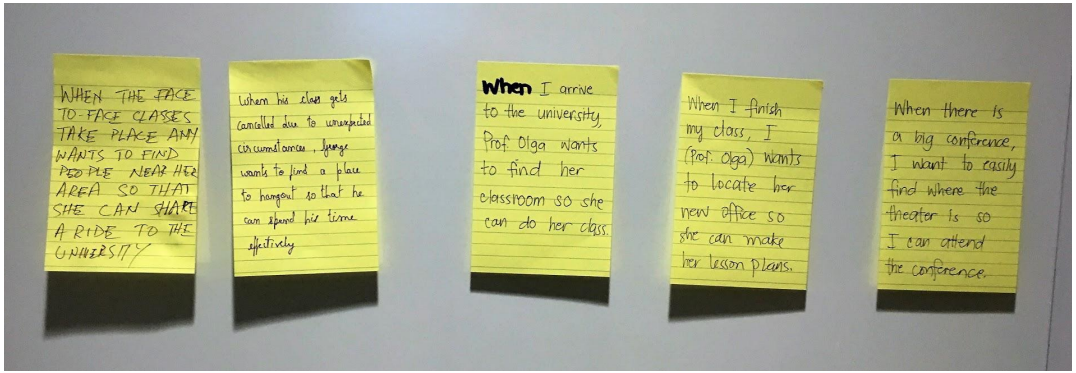
Job Stories

The following are some of the job stories we wrote during class.

- When his class gets cancelled due to unexpected circumstances, George wants to find a place to hangout so that he can spend his time effectively.

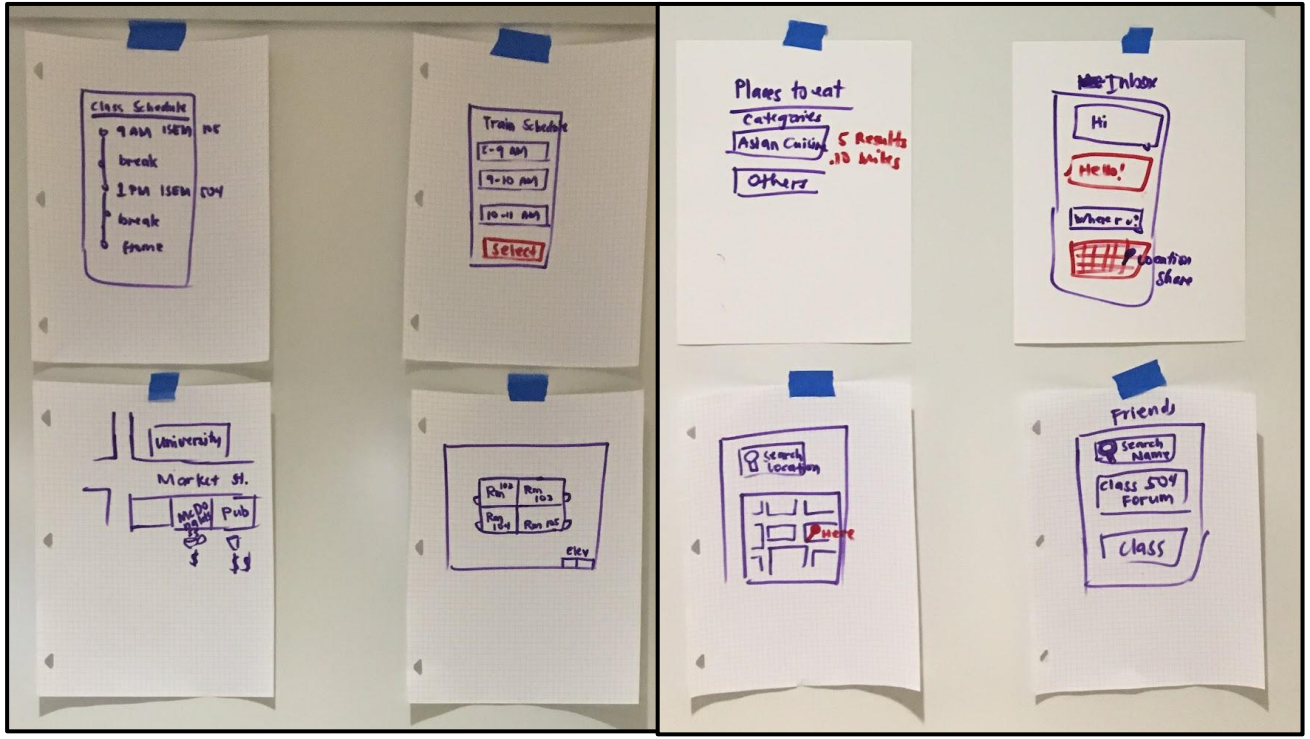
- “When I arrive to the university, I want to find my classroom so I can do my class.” - Prof. Olga

- When the face-to-face classes take place, Amy wants to find people near her area so than she can share a ride to the university.

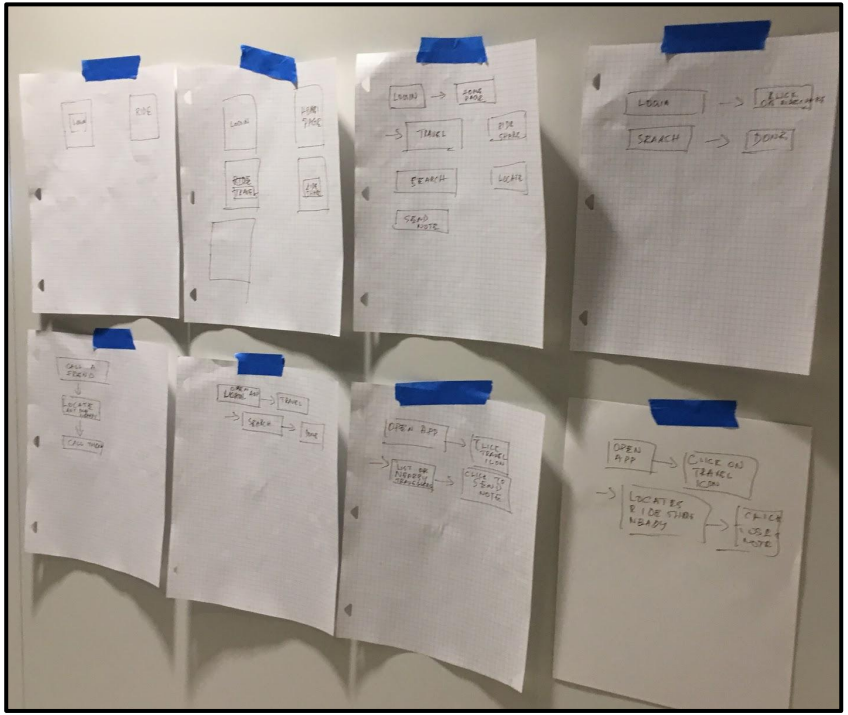


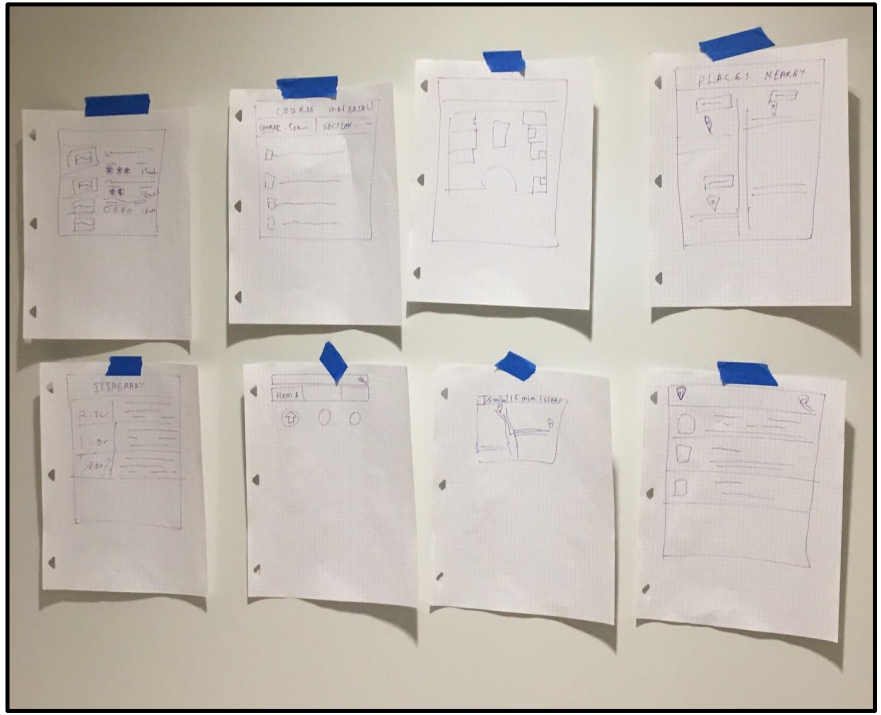
8-Ups

After reviewing the Problem Statement, Job Stories, Rule of Seven[2], and Personas the team developed 8 different solutions to the different aspects of the project's problem individually.



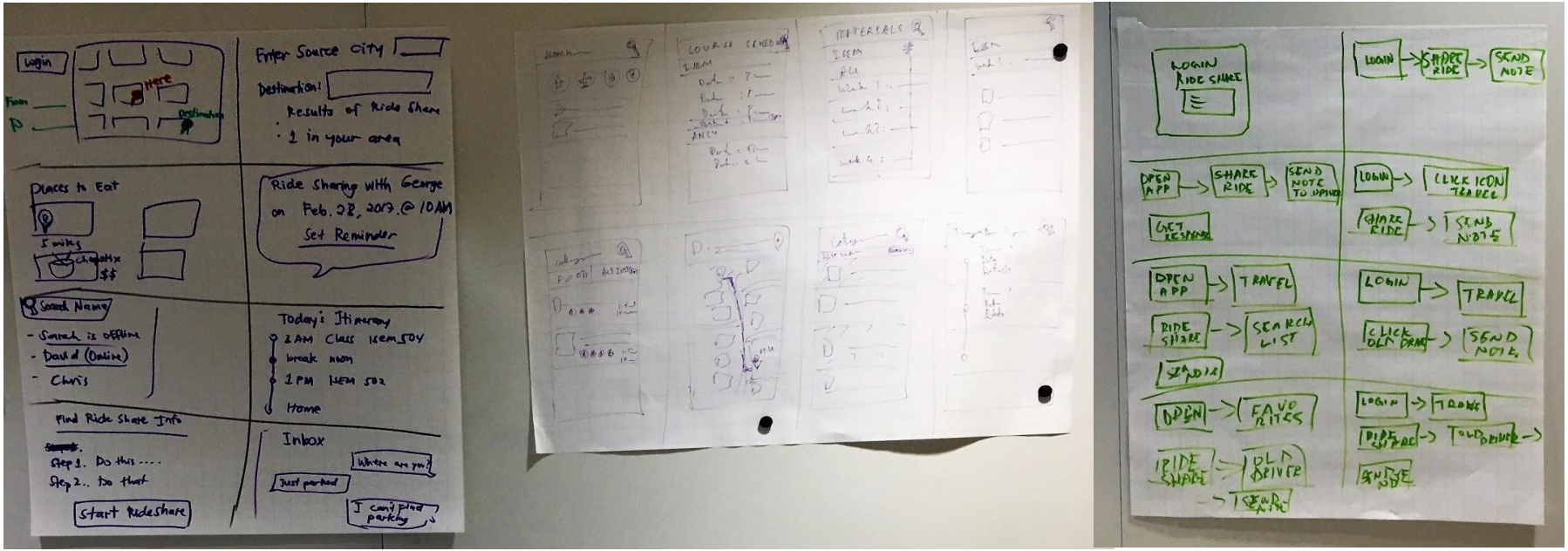
8-Ups (continuation)





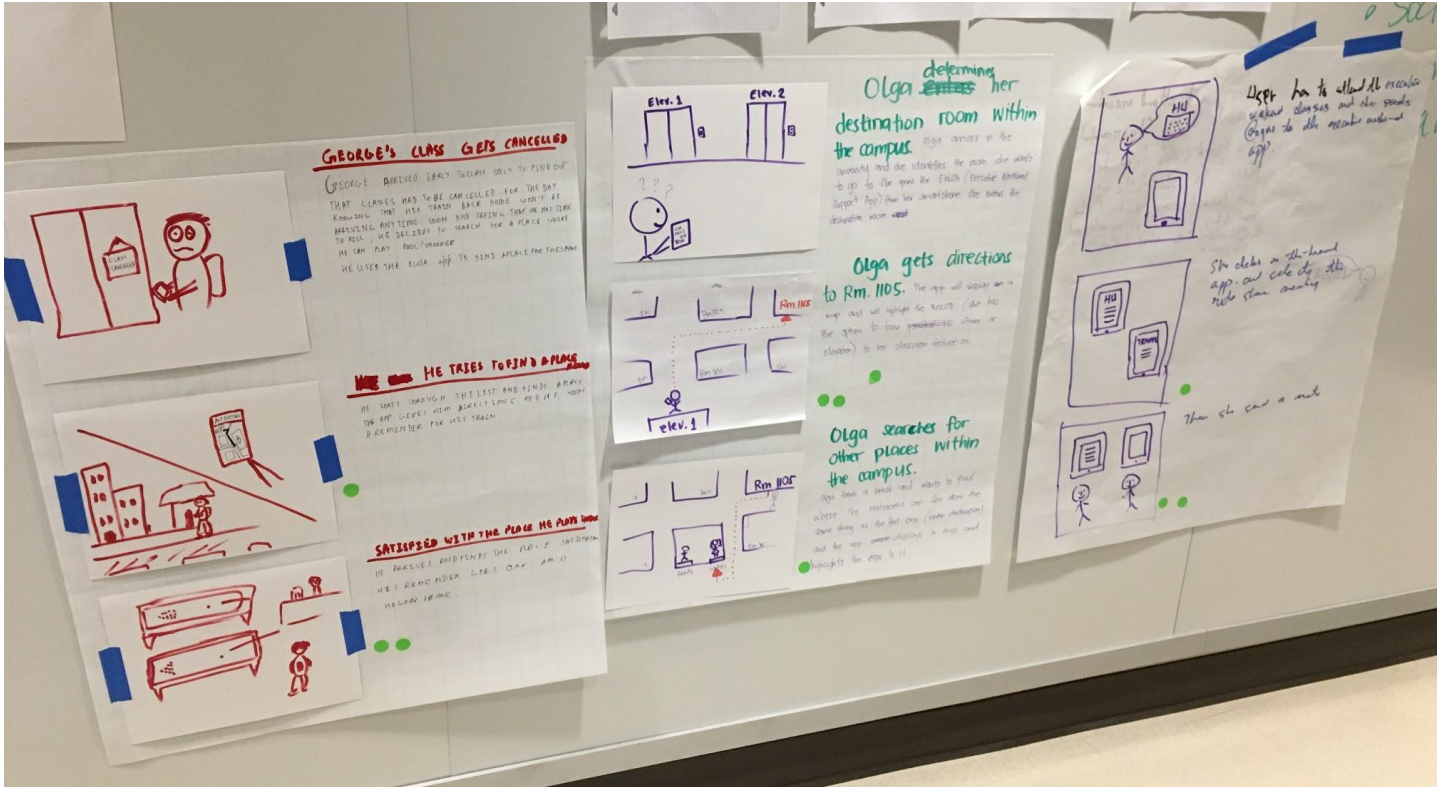
8-Ups (continuation)

The team repeated the process of 8-Ups after sharing the first round results.

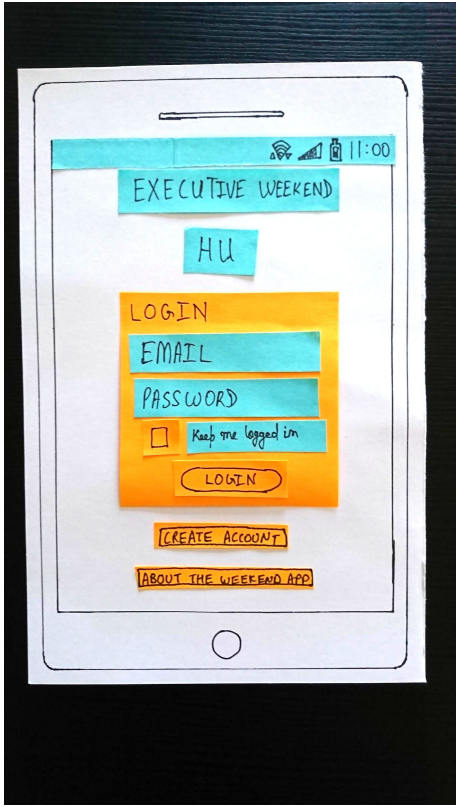


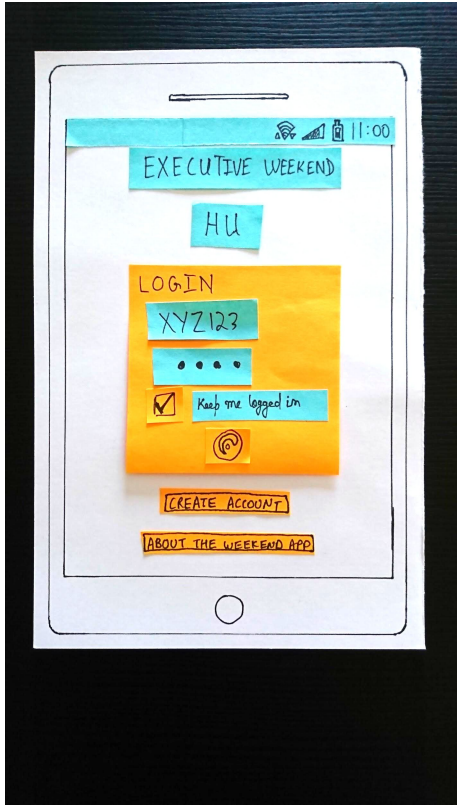
Storyboards

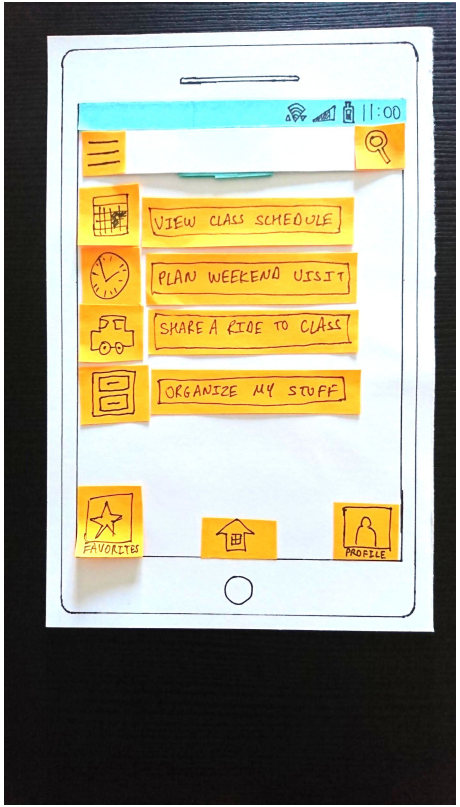
The team also developed individual storyboards of different scenarios of human-human, human-device or human-system interactions.

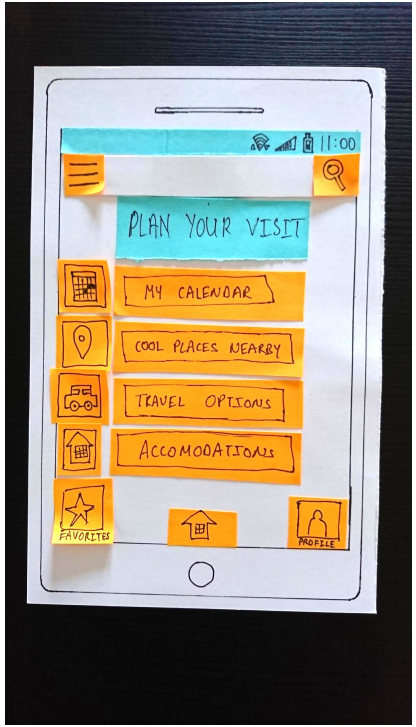


Prototypes (Early Ideas)









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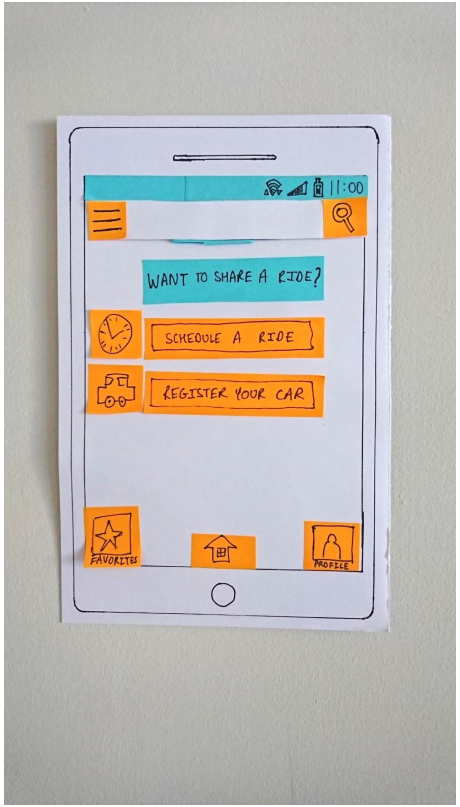
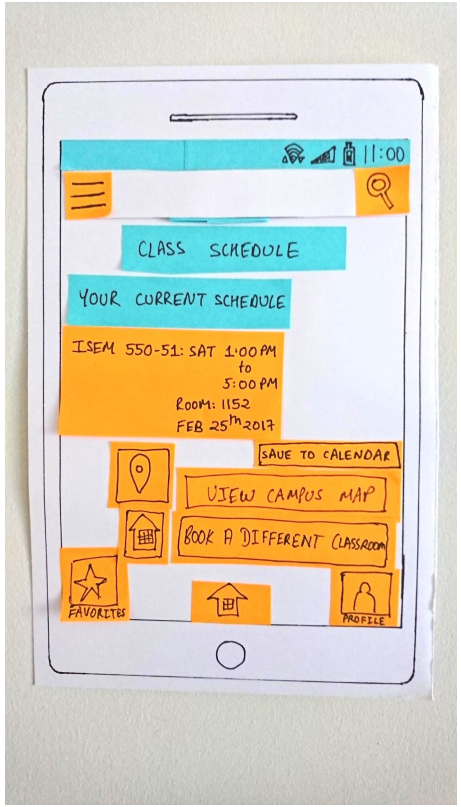
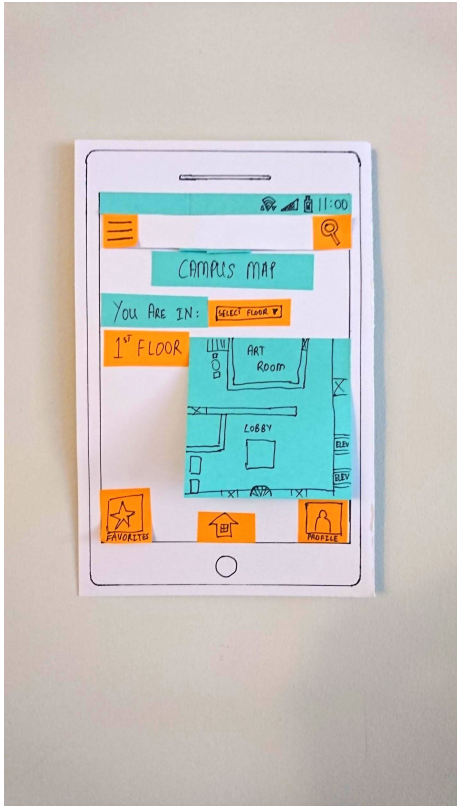






Prototype (Final)

- The final prototypes is in the form of a .vp file which is the file format used by the justinmind prototyper
- Link to the simulated version is as follows: https://www.justinmind.com/usernote/prototypes/25021808/25220033/25220035/index.html#/screens/d12245cc-1680-458d-89dd-4f0d7fb22724
-
- It is also included with the file

Ideation Testing

User Testing video links:

Testing was done on the prototype created and the Video of the same has been uploaded in the Youtube link below:

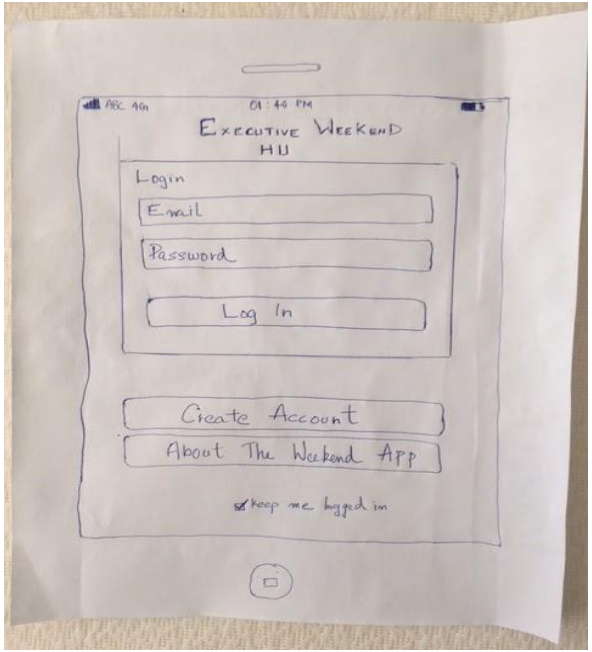
- https://youtu.be/Kt_eg0BPVsk

The user liked the Scheduling ability, the University maps and the Ride sharing functionality of the application

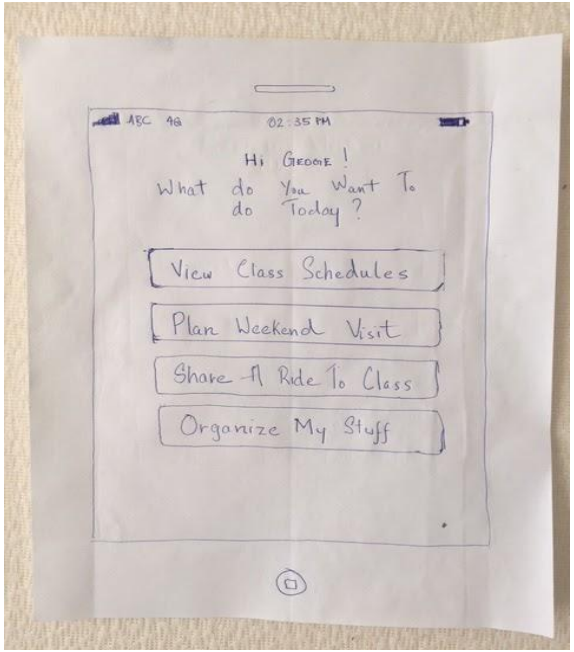
The user did not find the searching for locations nearby application in the App very useful for him.

Wireframes - Paper

Home Screen

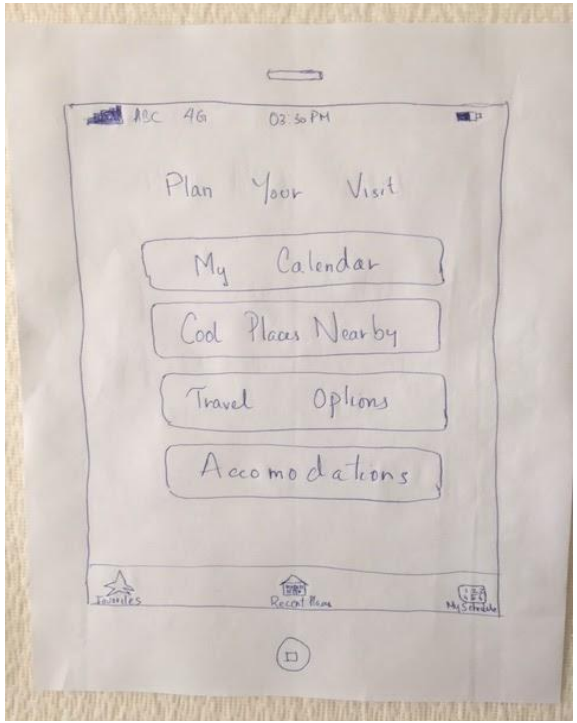


Student Login Page

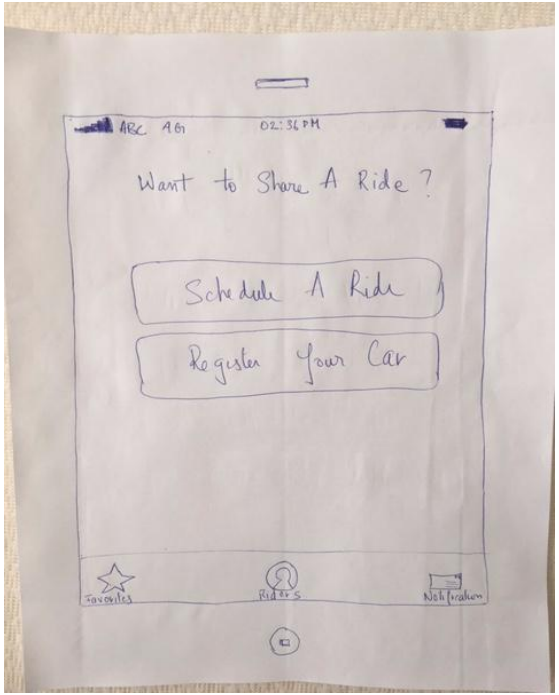


Wireframes - Paper

Planning Student Visit Page

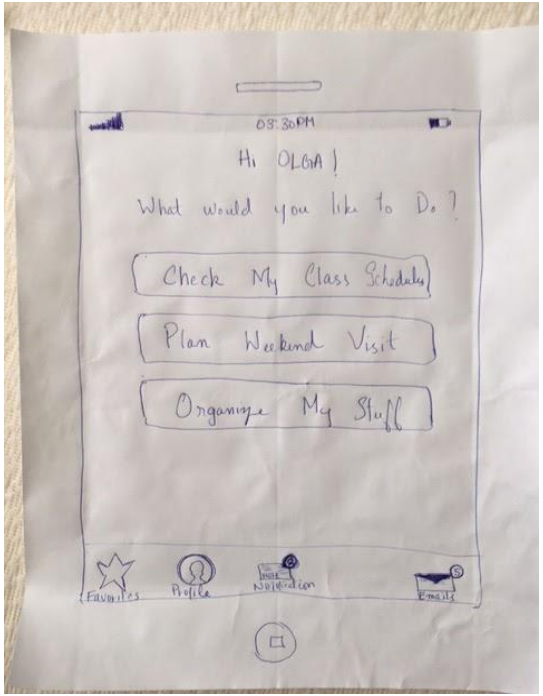


Ride Sharing

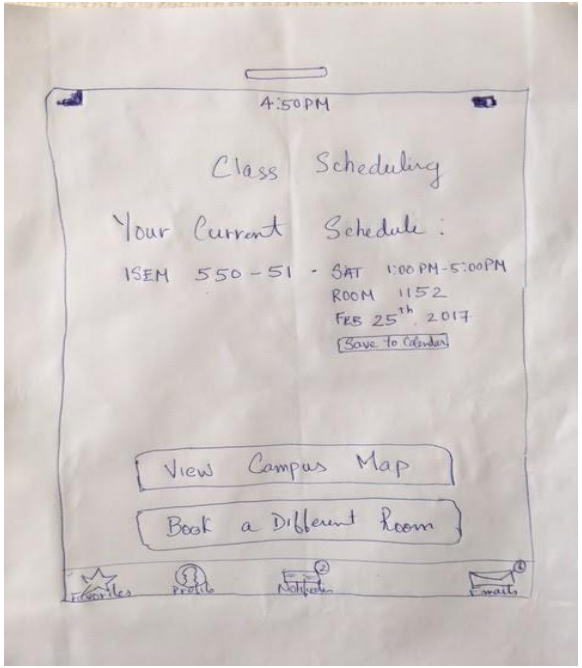


Wireframes - Paper

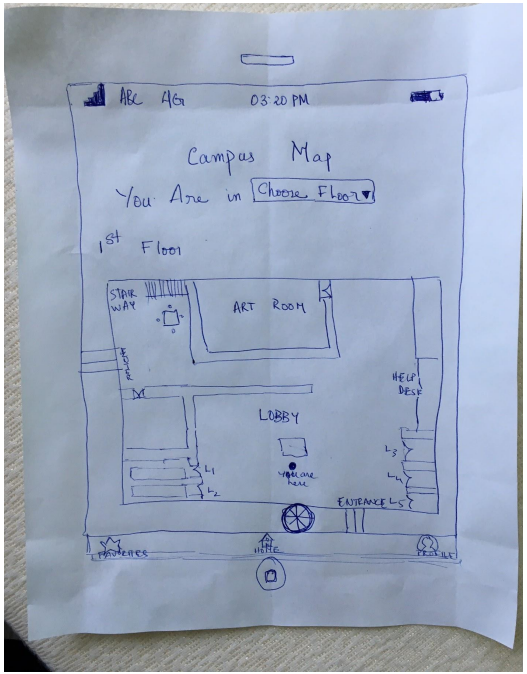
Faculty Login Page



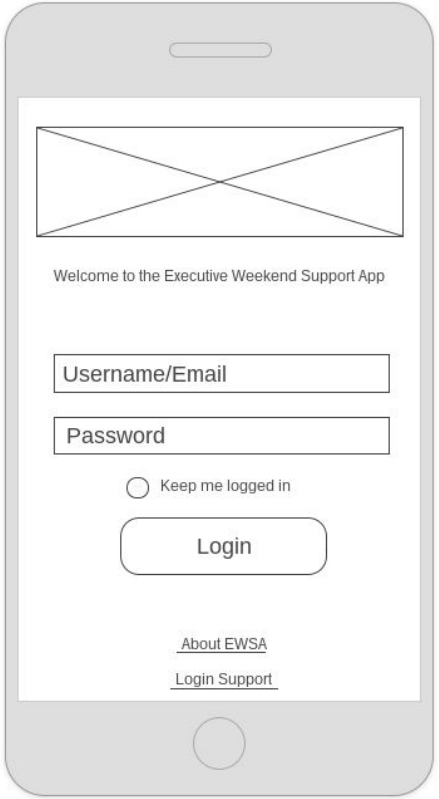
Faculty Class Schedule

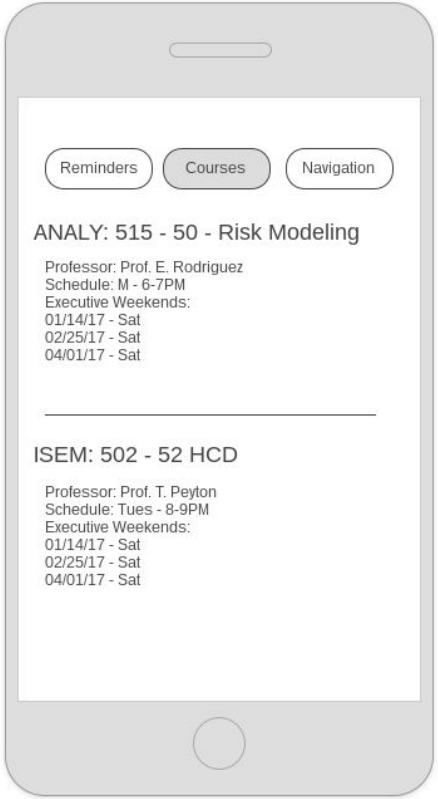


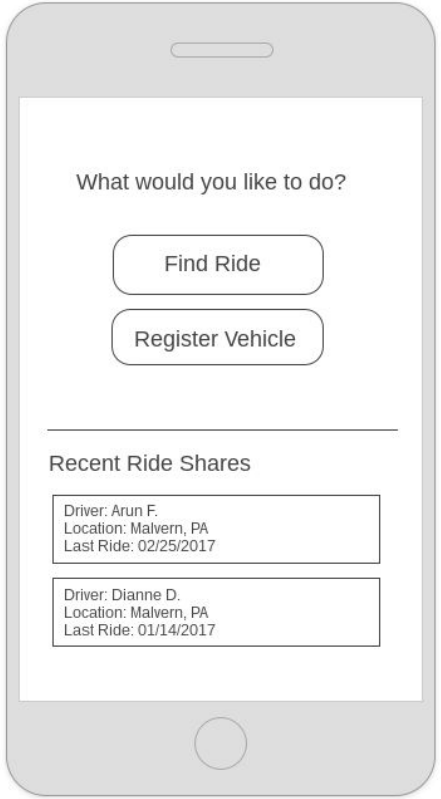
Campus Map



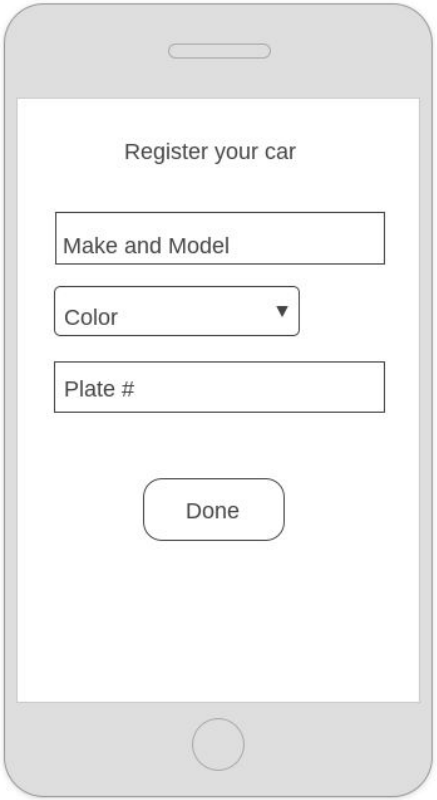
Wireframes - Software

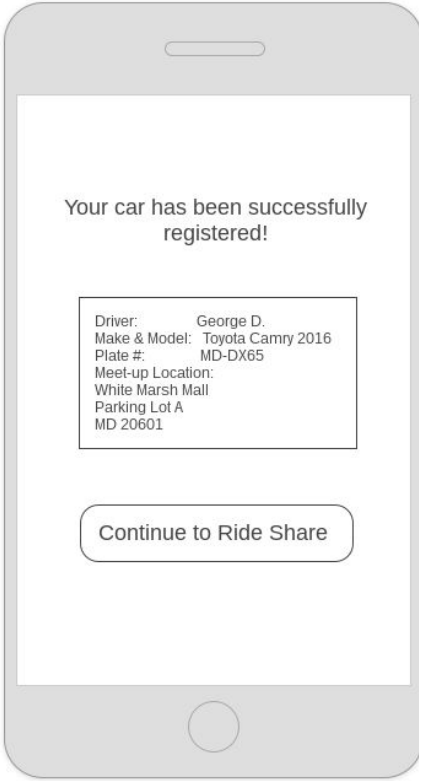


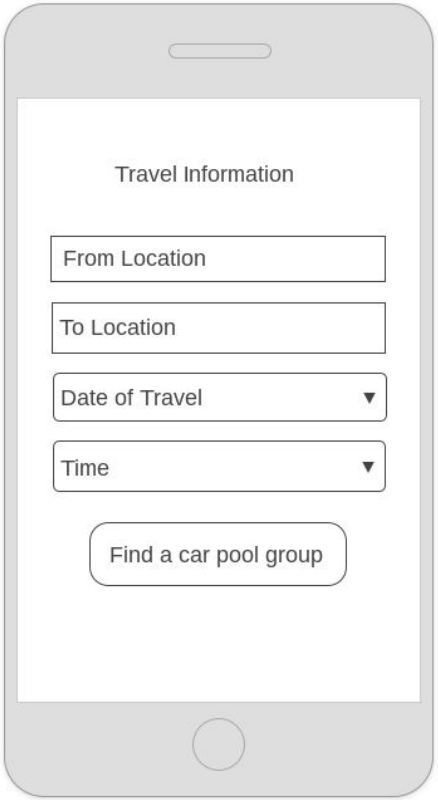




Wireframes - Software (continuation)







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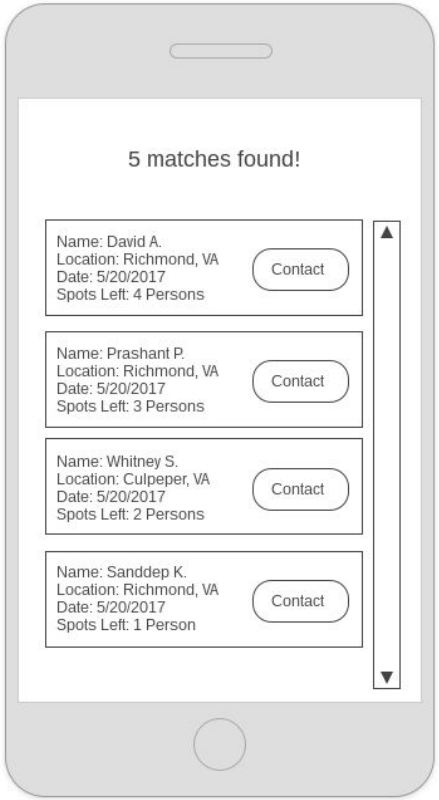
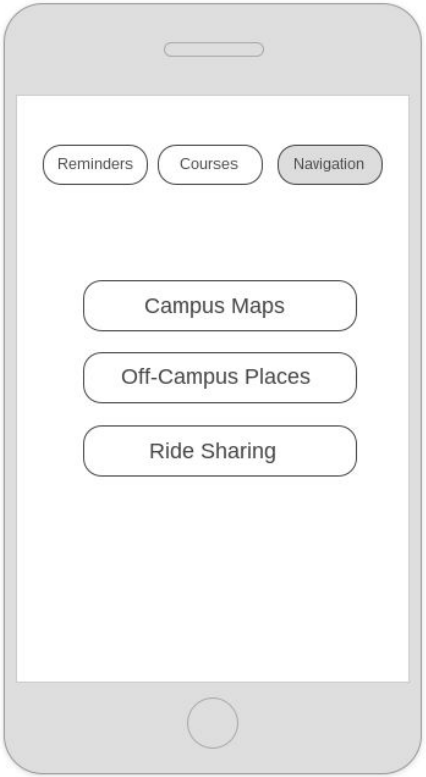
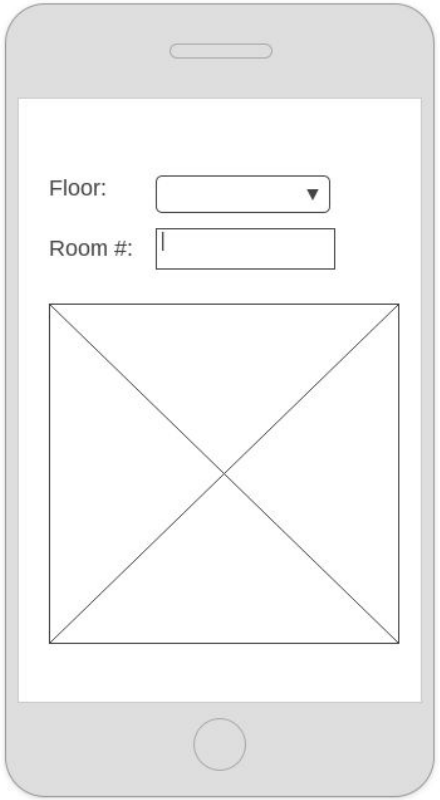
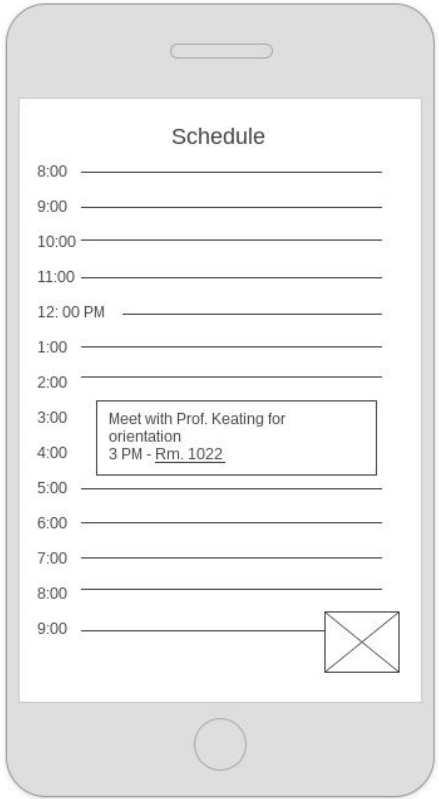
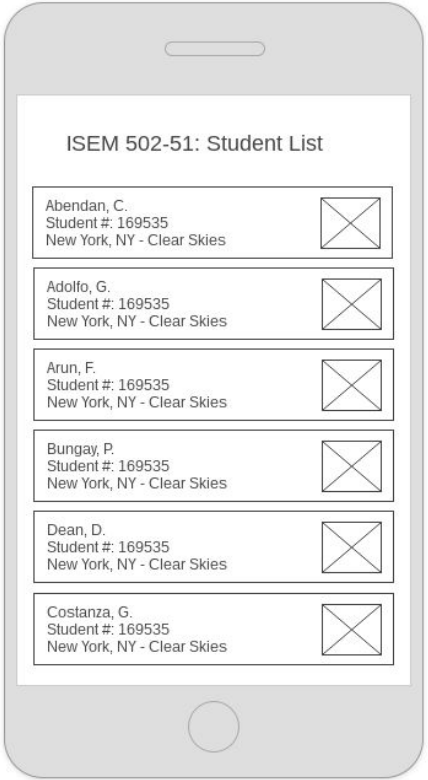






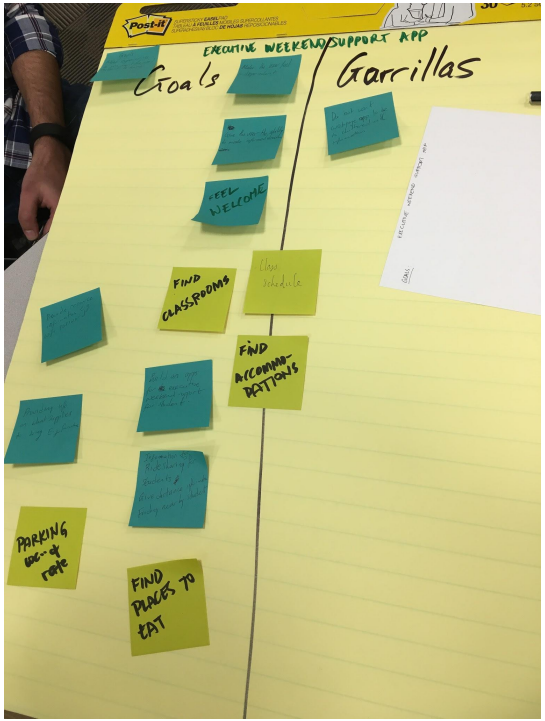
Wireframes - Software (continuation)

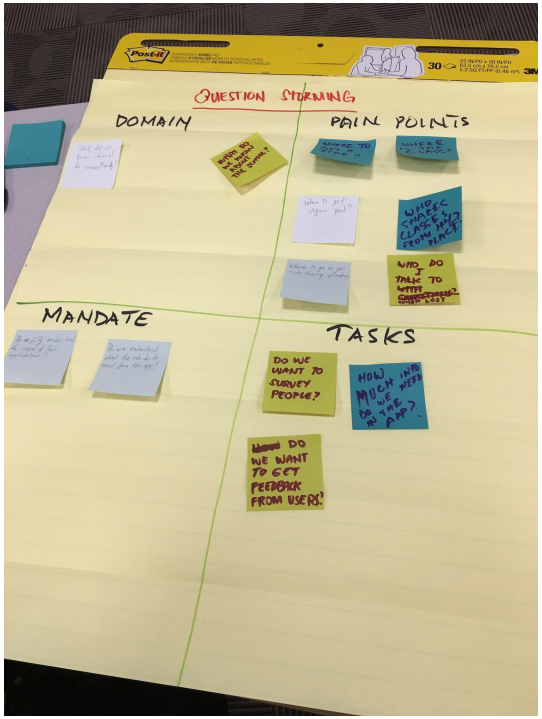


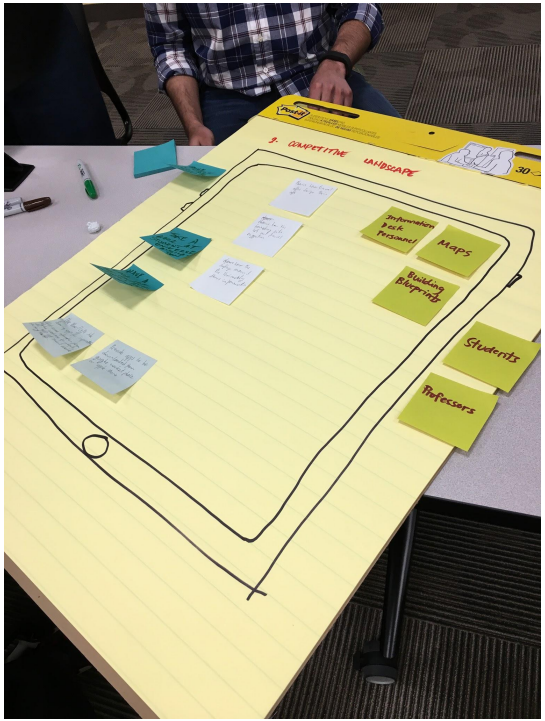


Appendix:
Photos from in-class activities

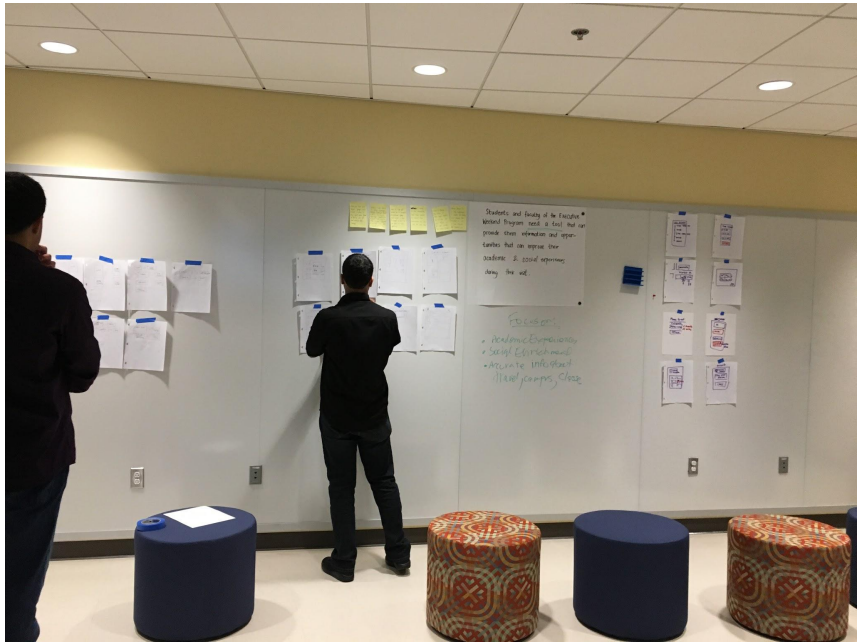
January 14, 2017



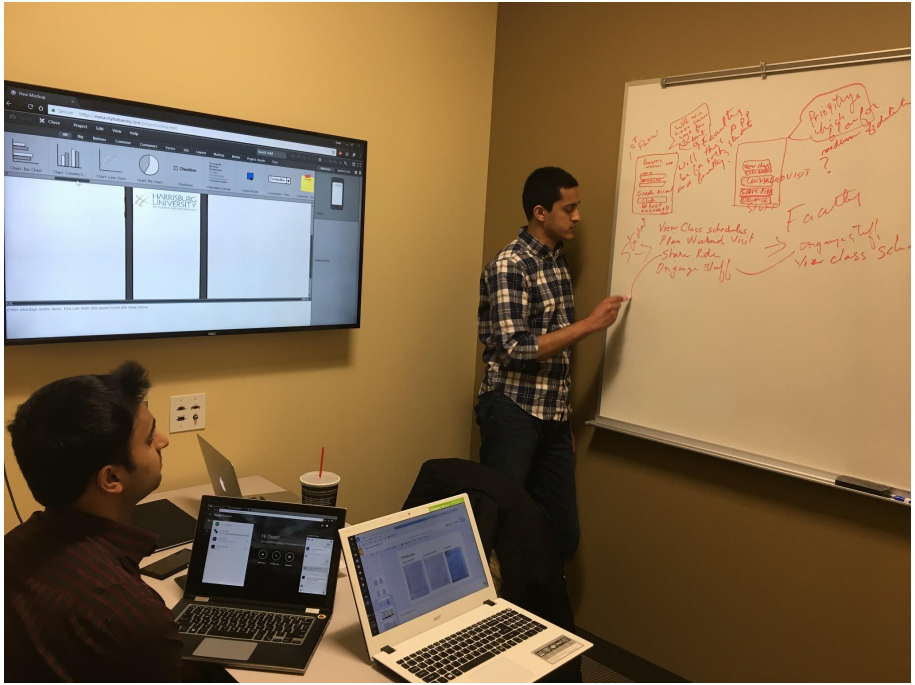


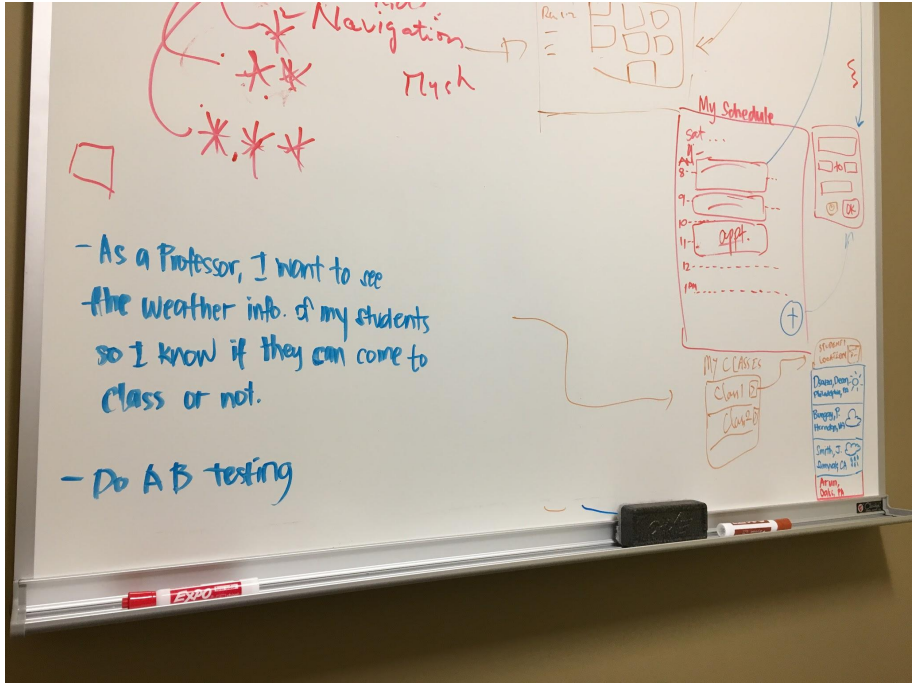


February 25, 2017



April 1, 2017


View Class schedules
Plan Weekend Visit
Share Ride
Organize Stuff


Navigation
Mych
My Schedule
- As a Professor, I want to see the weather info. of my students so I know if they can come to class or not.
- Do AB testing
My CLASSES