

P3: Design Requirements and Core Tasks

Submitted by Team Crazy for Jalfrezi:

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518B

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Design Requirements

These are our prioritized design requirements from P2.

1. Provide a way for people to quickly access information about dining locations on the UW campus with their mobile phones: an app.
2. A UW-Campus dedicated app, tentatively called “Hungry Huskies” should automatically show nearest open locations at any given time.
3. App needs to have a simple, fast search option that provides the three most important factors listed above: proximity, hours of operation, type of food.
4. App needs to be programmable to reflect individual’s priorities and preferences.
5. App allows users to bookmark favorite locations.
6. App needs to provide a walking route/map so user can quickly find location.
7. App info should be sharable so people can meet at a location.
8. Providing other services, such as nutrition information, directories, and reviews.

Core Tasks

First, we listed core tasks and assigned each team member 2 tasks to sketch.

Originally, this was the order of tasks:

1. I need to find a place to eat now. --- Erika
2. I need to select a place to eat. --- Erika
3. I need to know the hours of operation. ---Abhi
4. I need directions to restaurant from my current locations. ---Abhi
5. I need to see the menu. ---Bill
6. I need to know restaurant name/address/phone number.---Bill

In reviewing and critiquing our sketches, we took a closer look at our scenarios and research, and quickly realized we needed to reorder the list. For example, Our survey from exercise P2 showed us that when looking for a place to eat on campus in 10-20 minutes, eight-nine percent of respondents chose as their top decision criteria: proximity to current location, what type of food restaurant served, and hours of operation.¹

These are our prioritized core tasks.

Once we prioritized the order of core tasks, we felt that they better fit the steps users will likely take when looking for a “place to eat on the UW campus right now.”

¹ UW Dining Survey. Question 9. <https://github.com/aageek/518B/blob/master/HungryHuskiesSurvey.pdf>

Task 1 remained the same. Task 2 became Task 6. Task 3 became Task 2. Task 4 became Task 3. Task 5 remained the same. We also replaced Task 6 with “Need to know the restaurant’s location,” which became Task 2.

1. I need to find a place to eat right now.

Our first core task begins with our design problem.

2. I need to know the hours of operation.

Our second core task is guided by our survey results, as mentioned above. Since each of the criteria listed had the same number of votes, we chose hours of operation as the second task because if a user wants to eat within 10-20 minutes, she will need to know first what is open at that moment. Hours of operation were also vital to both of the personas in our scenarios, who need to find food at specific times.

3. I need to know where the place is located.

Again, our survey tells us that proximity is a key factor for users, and our scenarios also make location important since both personas have limited time to find something to eat.

4. I need to get directions.

Our survey indicated that a significant percentage of our target users were not familiar with the locations of on-campus restaurants and cafes.² In both our scenarios, our personas were new to the UW campus and didn’t know where dining venues were located.

We believe that our solution should serve the user in her current location, and once a restaurant is identified, the user will need directions to it. Since time is of the essence in both scenarios, directions help the user get to the restaurant.

This task is different from task three; we saw it as a part of the decision making process rather than a step in the interaction. Knowing the location of the restaurant may not be helpful without directions for ours users since they are not familiar with the UW campus.

5. I need to see menu choices.

Again, our research and our scenarios showed that “type of food available” at a dining location was an important factor in deciding where to eat.

6. I need to choose a restaurant.

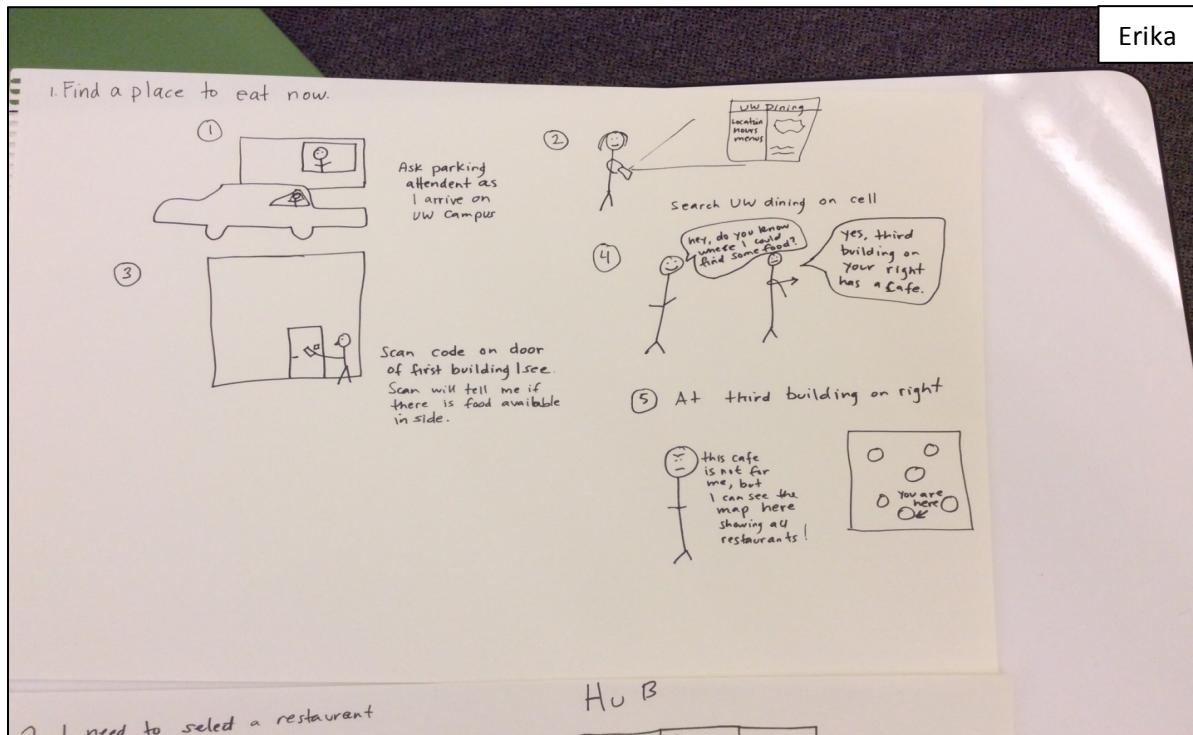
Finally, once a user knows which restaurants are open, when she wants to eat, which restaurants are nearby, which restaurants are easy to get to, and which restaurants have the food she wants, she is

² UW Dining Survey. Questions 4-7. <https://github.com/aageek/518B/blob/master/HungryHuskiesSurvey.pdf>

ready to select a place to eat. In some cases, she might have more than one option that fits all her criteria. In some cases, she might only have one option, or she might need to let go of some criteria in order to serve her greatest need, finding something to eat immediately. Our secondary research showed that despite the fact that many students want to eat healthy foods, they will ultimately make a decision on what and where to eat based on time.³

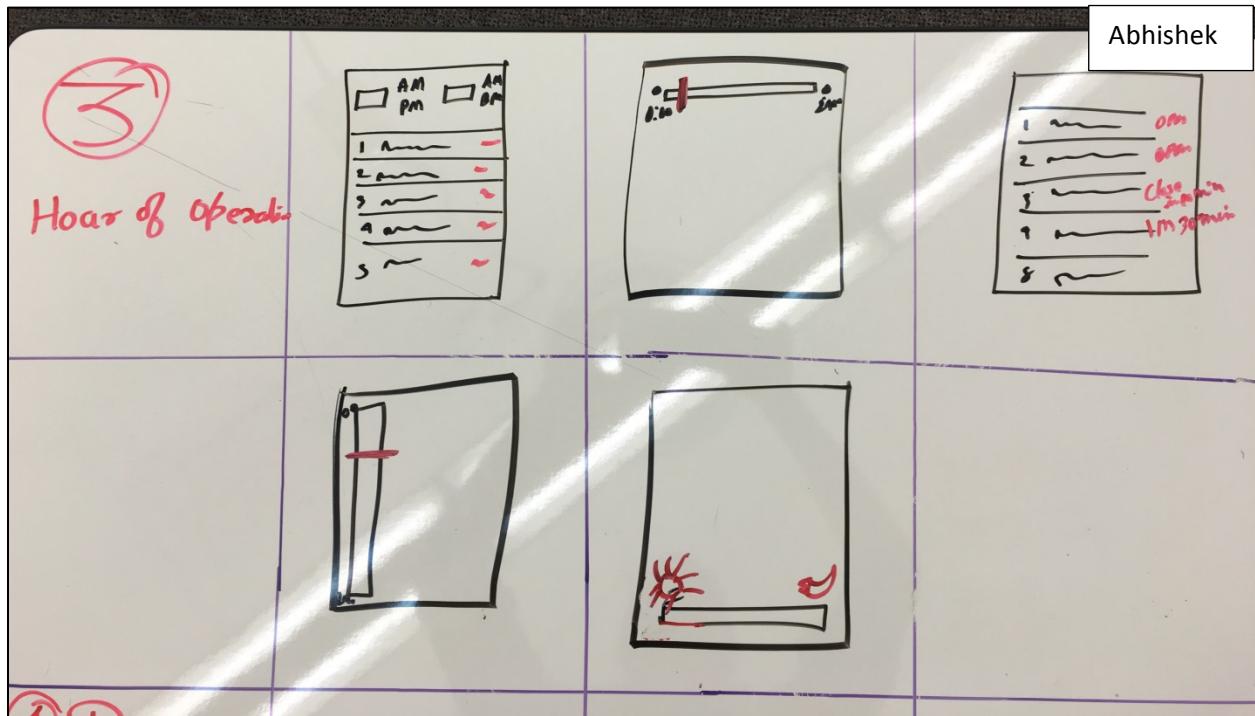
Initial Sketches

Task 1: I need to find a place to eat right now. --- Erika

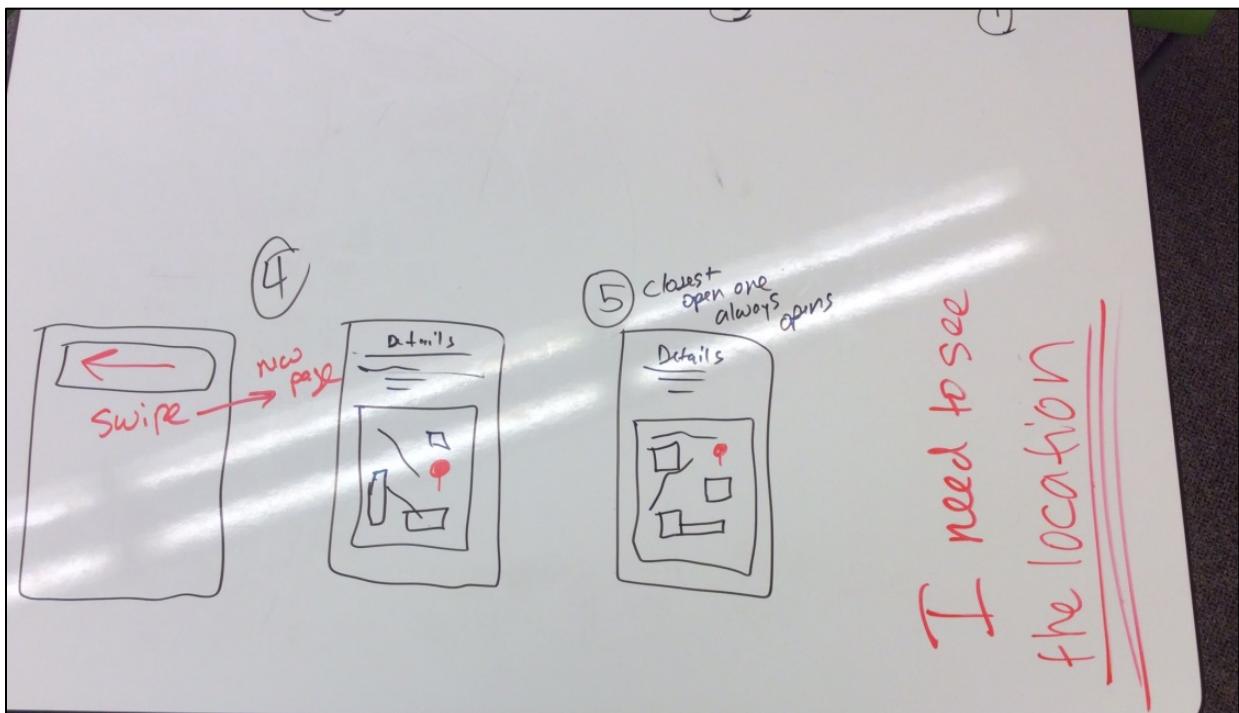
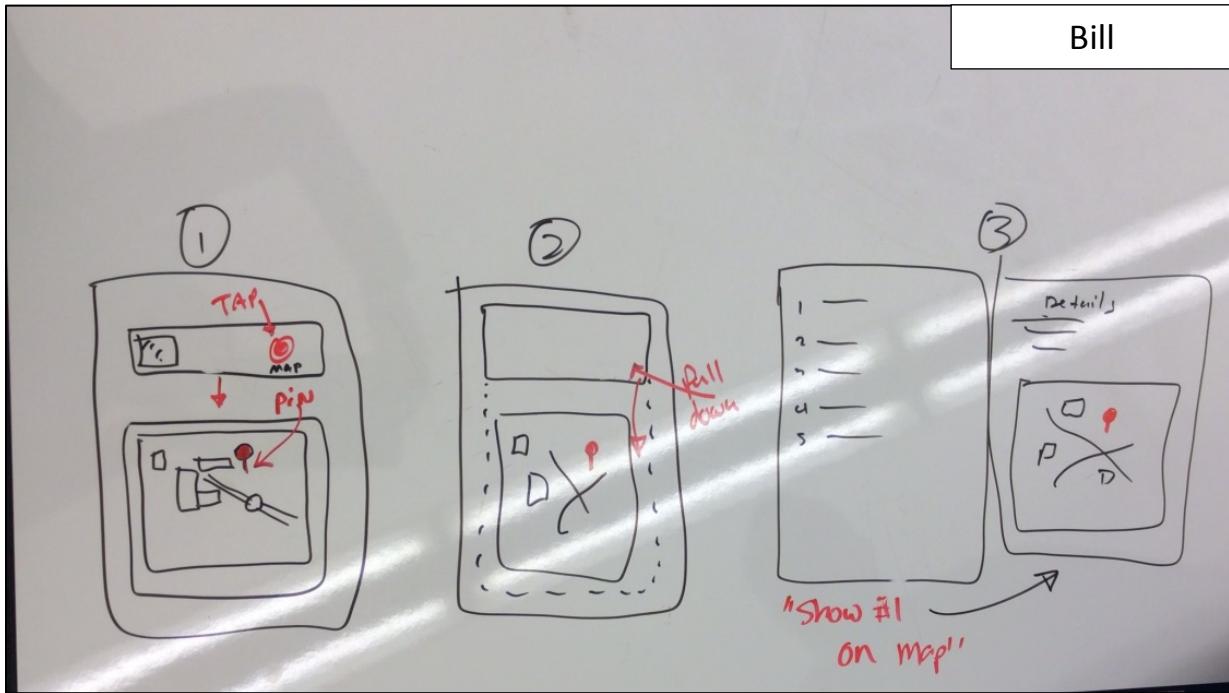


³ P2 assignment. Appendix, pages i-xii.

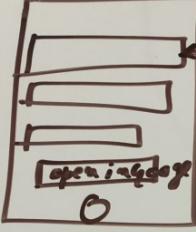
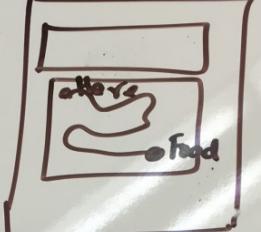
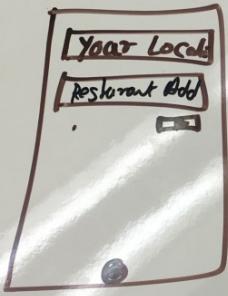
Task 2: I need to know the hours of operation. --- Abhishek



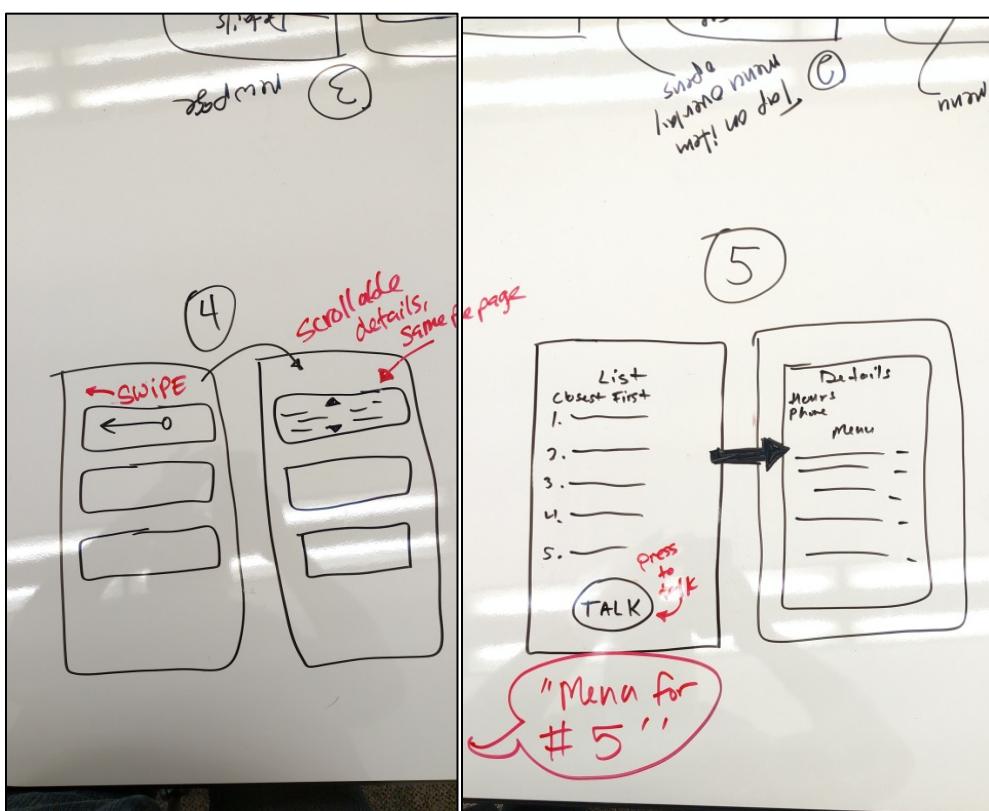
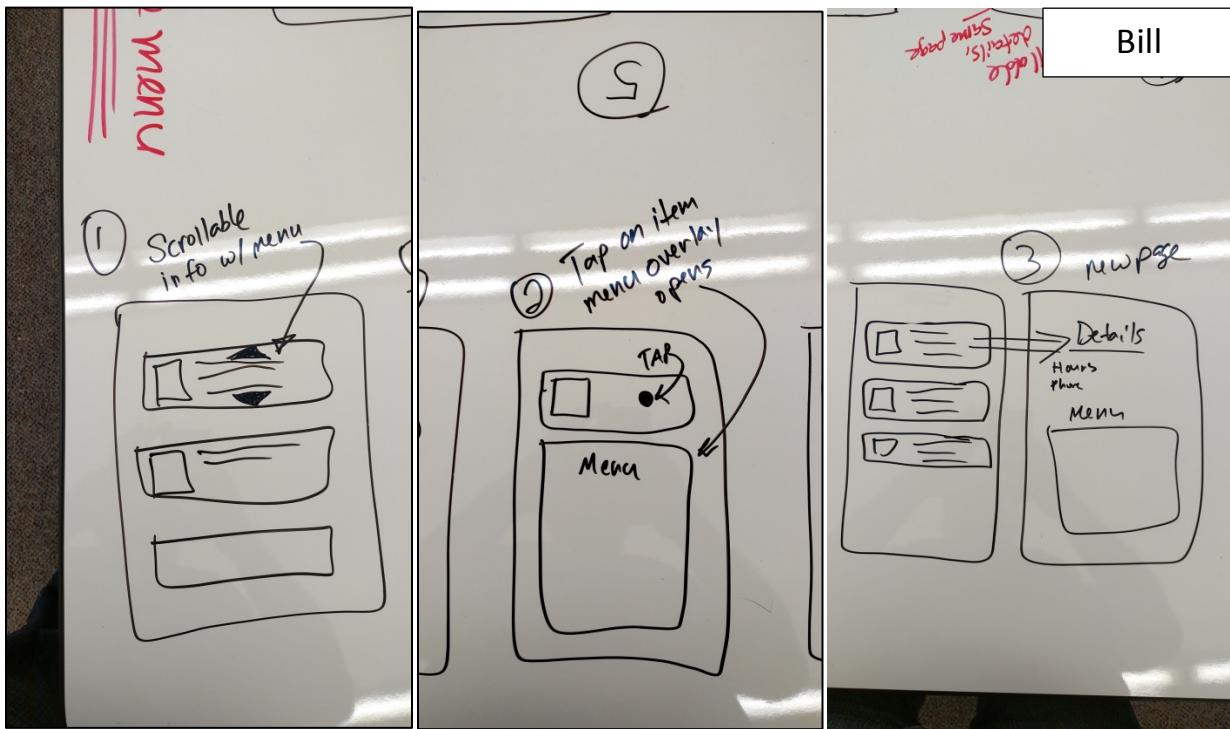
Task 3: I need to know the location. --- Bill



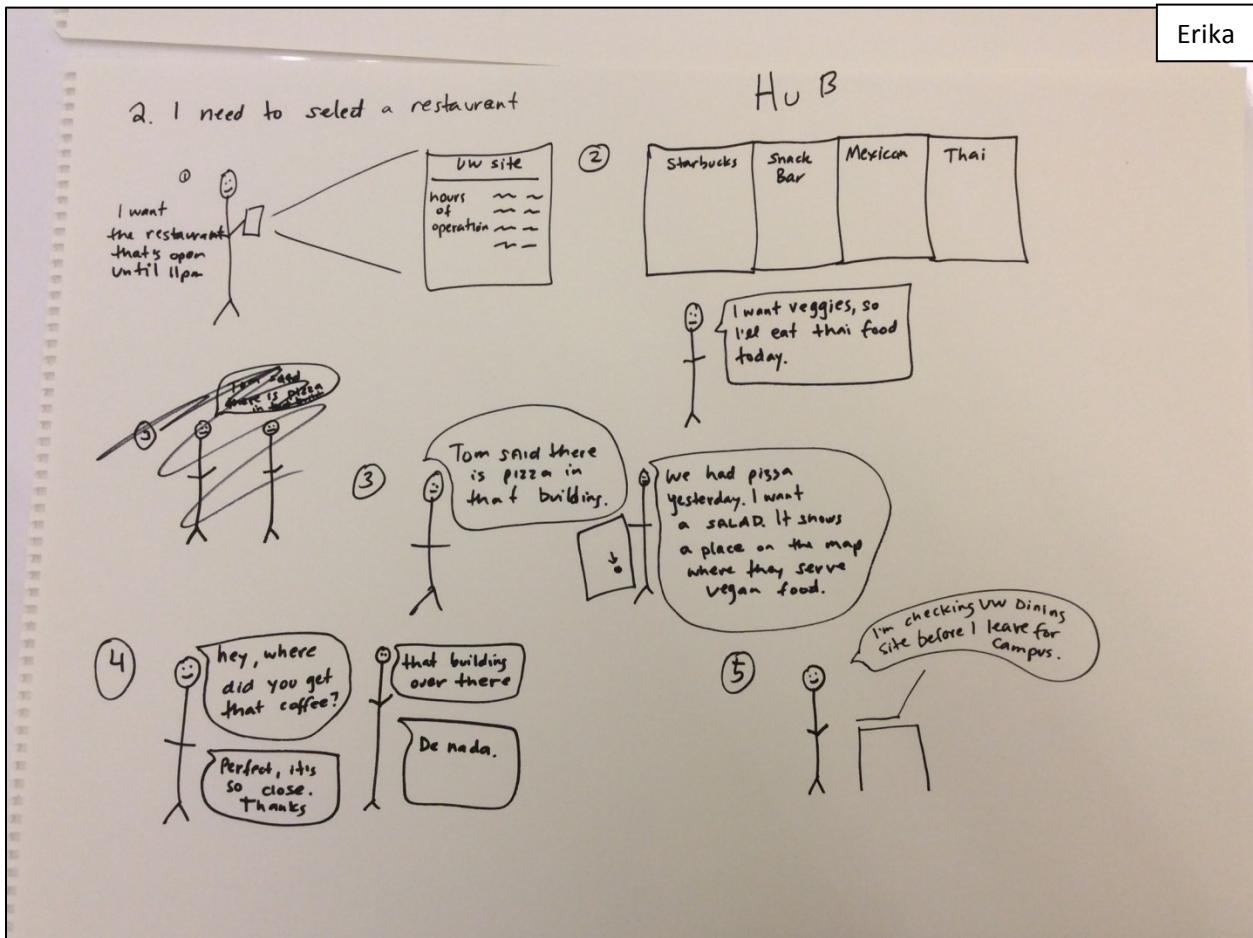
Task 4: I need to get directions. --- Abhishek

			Abhishek
④ Direction from Current Location			
		You are at Building 1 Take left Walk 50 feet Take right after <hr/> <hr/> Restaurant is on your left	

Task 5: I need to see menu choices. --- Bill

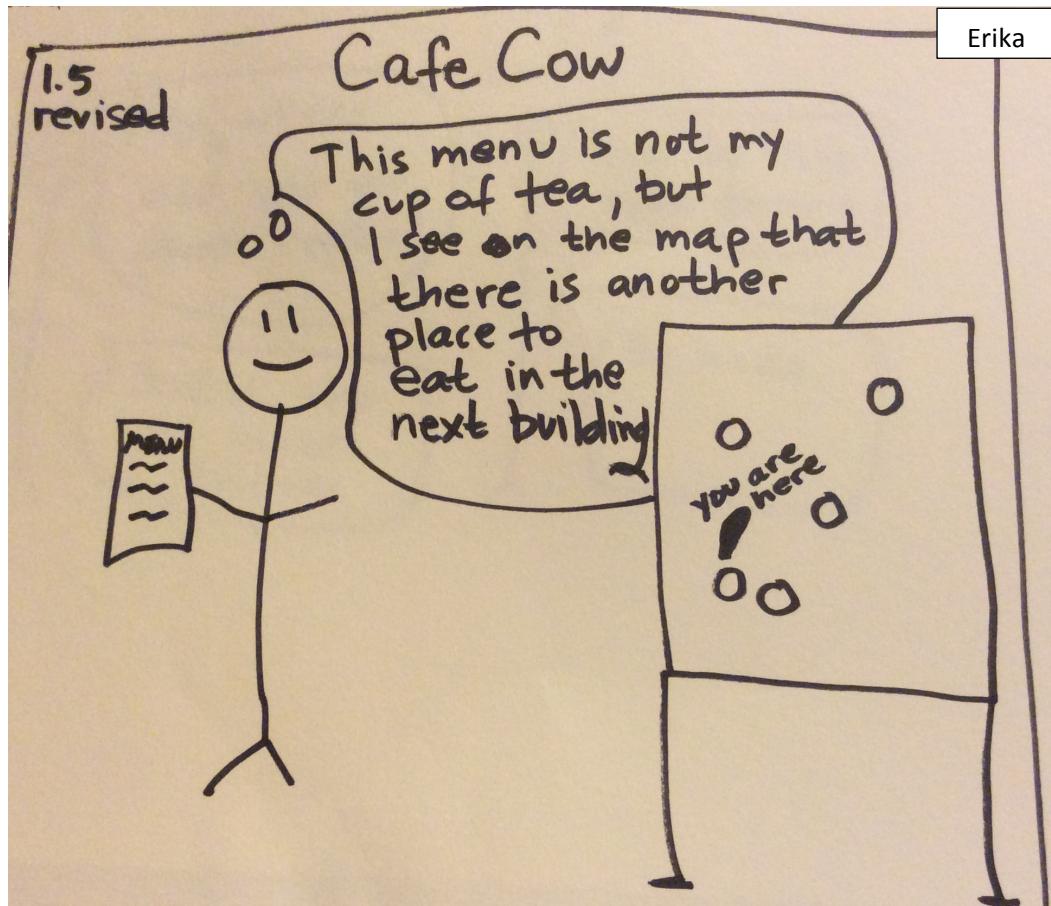


Task 6: I need to select a restaurant. – Erika



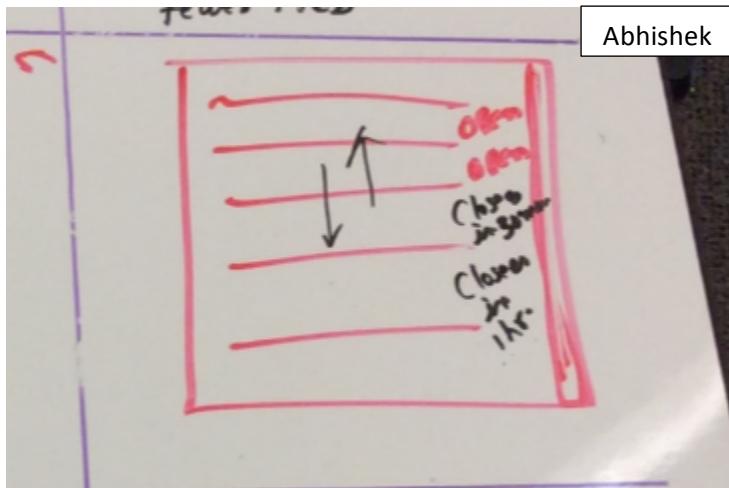
Final Sketches

- I need to find a place to eat right now. --- Erika



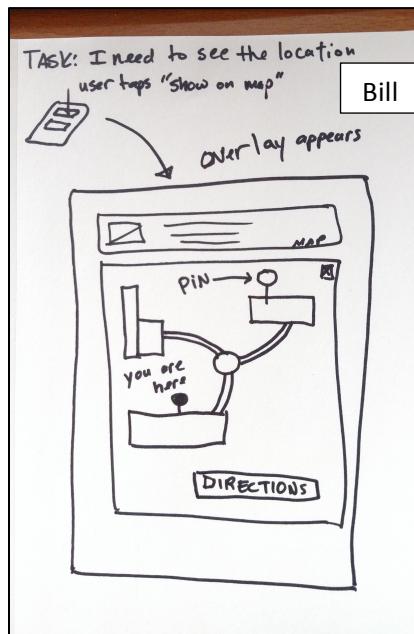
We selected this sketch because it represents one of the suggestions we received in our survey, “better signage would help.” The concept also represents our design requirement of helping users quickly find a nearby place to eat on the UW campus. Even though our design requirements are focused on creating an app, we liked this concept and used it in the sketches of the app (see drawings 3 and 4). We also wanted to include a low-tech solution that could work with and augment the app. If every dining location has a map of all the dining locations, users could quickly find another place to eat (without going back to their phones) if they didn’t like the menu at the location they selected.

2. I need to know the hours of operation. --- Abhishek



Hours of operation is an important piece of information that users need to make a decision. Based on our discussion this information should be available as a quick reference, without asking the user to have multiple interactions with her device. This concept in the final sketch also helps user make a decision by letting her know in real time if the restaurant is open, closed, or will close soon. Having this information appear when the app opens is one of our design requirements, i.e., allowing user to quickly know what is open at any given time.

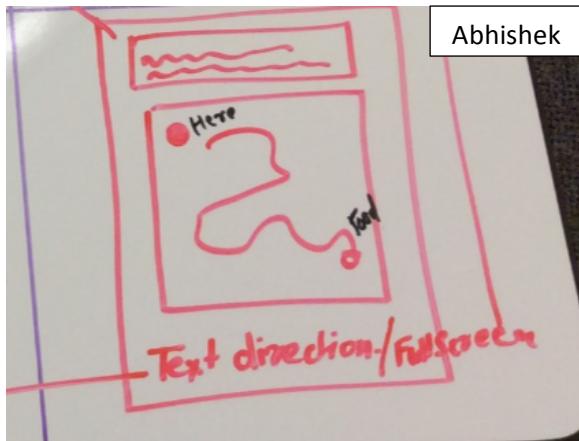
3. I need to know where the place is located. --- Bill



We chose this design for its simplicity and its use of an overlay rather than having a new page open when the user taps on a location because using an overlay makes the interaction intuitive and quick. The user starts by seeing one or more listings of restaurants/cafes, and then taps on some text that says, “Show on Map.” Then an overlay appears, showing pins at the user’s location and at the selected dining location.

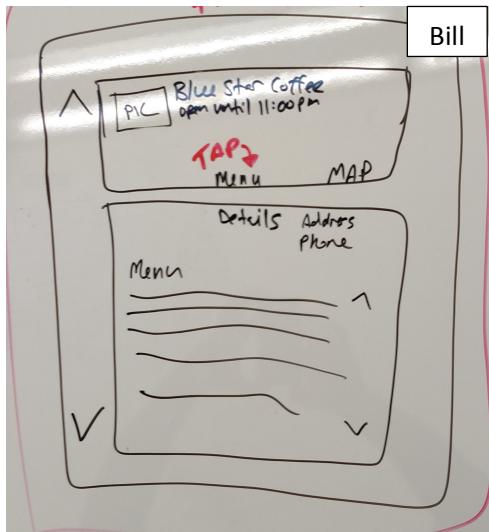
The design meets our requirements and serves our personas’ need for quick and easy information about their nearby food options by giving them the relative location of a possible destination. The designs we rejected required multiple steps or posed needless technical challenges (e.g. voice control). This design provides a simple way for users to find what they need.

4. I need to get directions. --- Abhishek



This interaction follows the previous sketch, giving the user directions to the restaurant she selects. The motivation behind this sketch is based on our design requirement of “providing a walking route.” This sketch shows that the user has the option of using a visual image or text instructions to help her reach her destination. She shouldn’t have to worry about the journey but focus of goal of reaching the restaurant. We focused on this visual presentation as the main focus, and included some text information. This concept also provides an option to view a full-size immersive map.

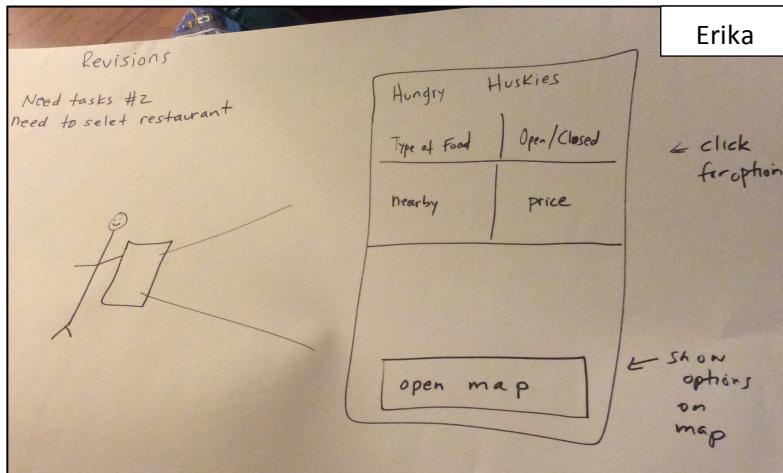
5. I need to see menu choices. ---Bill



Similar to the location task, the team felt that the use of a simple overlay with a menu and other details about a restaurant/café was the best choice for our personas because of its quick, intuitive delivery of relevant information.

In order to meet our design requirements--specifically, the need to give users hours and menu choices--this menu with a details overlay could handle a variety of information, including hours of operation, phone number, and other contact information. The interface should be dynamic, changing with new input from vendors.

6. I need to choose a restaurant. --- Erika



This sketch shows one way a user could use a mobile app to select a place to eat. Per our design requirements, she can program her settings to help her prioritize the way she selects a restaurant. She might choose to find the nearest location, or she might be willing to spend an extra five minutes walking if she can get her favorite food. Again, per our design requirements this interface provides a way for users to search based on their preferences and priorities.

Appendix

A. List of all tasks

- Need to find restaurant
- Need to select restaurant/and/or food
- Need to see menu
- Need to know hours of operation
- Need to know where it is from current location/from classroom
- Need to get directions
- Need to sort choices by distance
- Need to reset search

B. Priorities (critiques and priorities of sketches)

1. I need to find a place to eat right now.

- i. “doesn’t fit within our design scope”
“requires pre-thought, pre-planning by user and requires UW to give the attendant the information”
“slows down the line”
- ii. “limited by connectivity”
“we know from testing that it’s too time consuming to use UW site on a cell phone.”
- iii. “UW would need to approve and implement”
“UW would have a maintenance cost for this.”
- iv. “not everyone knows the campus”
“this requires another person”
- v. “a pretty good solution”
“UW would need to maintain this.”

In our critique of the sketches for task one, we decided we liked drawing 1:5 the best (highlighted in yellow) because it would help users find a nearby dining option if they didn’t like the menu at the location they found first.

2. I need to know the hours of operation (Originally, the second step was “I need to select a restaurant,” but we revised it based on our scenarios and research data; see task 6.)

- i. “too many steps”
- ii. “similar to versions 4 and 5”
 - “easy to select time”
 - “users can plan for finding food after class”
- iii. “this is the best one”
 - “the times are automatic”
 - “provides real-time information in fewer steps”
- iv. see drawing 2
- v. see drawing 2

In our critique of the sketches for task two, it was obvious that sketch 3 had the most potential because it provided the most useful information in the fewest steps and it was easy to understand.

3. I need to know where the place is located.

- i. “we like the overlay; lets user stay on the page”
- ii. “same concept as sketch1, but a pull-down instead of a tap”
 - “not as intuitive”
- iii. “voice operation could be buggy”
 - “could do an overlay or use two pages”
- iv. “slide operation”
 - “it’s confusing”
 - “not intuitive”
- v. “app starts with info provided automatically based on location”
 - “user can pre-program settings”

4. I need to get directions.

- i. “too many steps”
 - “have to leave the app for info”

- ii. “visual, easy”
 - “gives lots of info visually”
- iii. “need more options”
- iv. “too much work”
- v. “this could be a second choice”

In our critique of the sketches for task four, we discussed on the criteria as what will be the simplest approach will be providing relevant information without many interactions from the user. It was obvious that sketch 2 had the most potential because it provided the most useful information in the fewest steps and it was easy to understand. It had text as well as map in one screen .

5. I need to see menu choices. (Bill)

- i. “congested design”
 - “too much interaction”
- ii. “good”
- iii. “requires 2 steps”
- iv. “requires 2 steps”
- v. “requires 2 steps”, “voice recognition could be buggy”

We decided to combine sketches 1 and 2 so that the interface could have a scrolling list, a “tappable” menu icon, and the restaurant list could include basic info about menus so users could get an idea of types of food available without looking at the full menu.

6. I need to choose a restaurant.

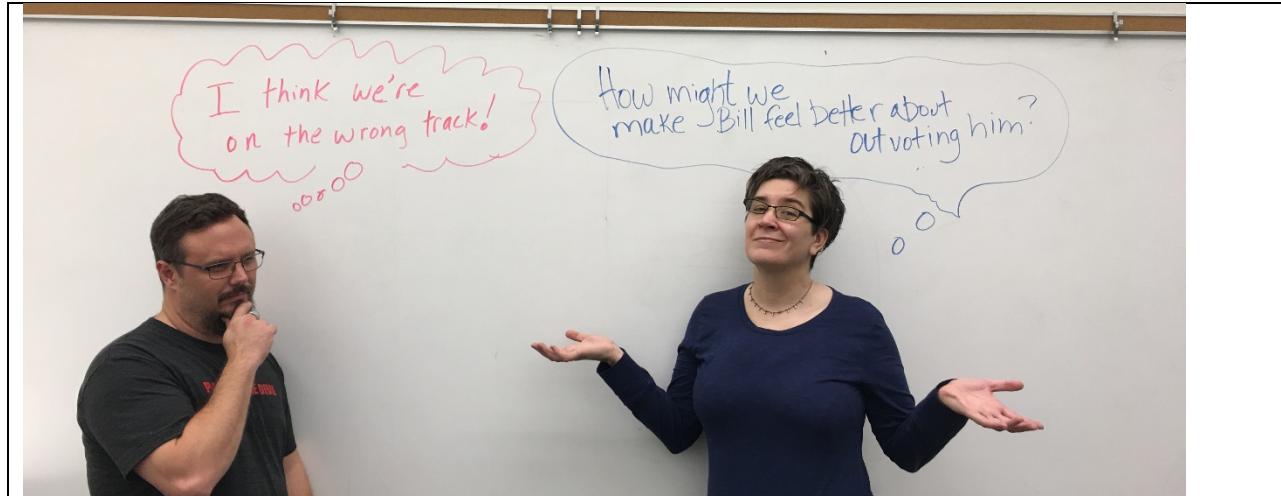
Originally, choosing a restaurant was task 2, but we changed it based on our scenarios and research data. Also, as we looked at the sketches, we realized that our goal is to help the user find a place to eat. Once the user is ready to select a restaurant, the design problem has been solved.

- i. “too time consuming”
“high frustration, low success”
- ii. “if you don’t find the Hub, you won’t see several dining options in front of you.”
“visually appealing”
“limited by users being able to find it and have it near their current locations”
- iii. “map could be paper, wallet card, or screen”
“you’d always have to remember to carry the map”
- iv. “requires another person”
“requires user to run into another person who has food”
- v. “requires pre-thought, pre-planning”

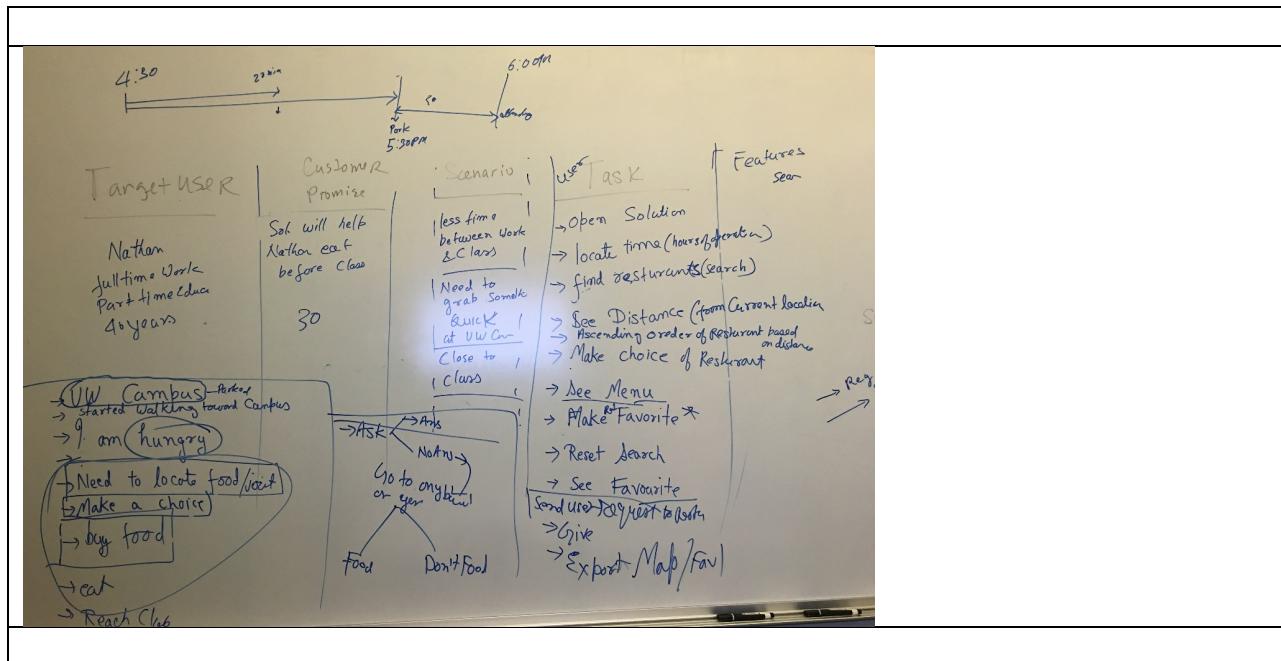
In our critique of the sketches for task five, we decided we liked drawing 2:1 and 2:3 the best (highlighted in yellow) if they were combined and revised.

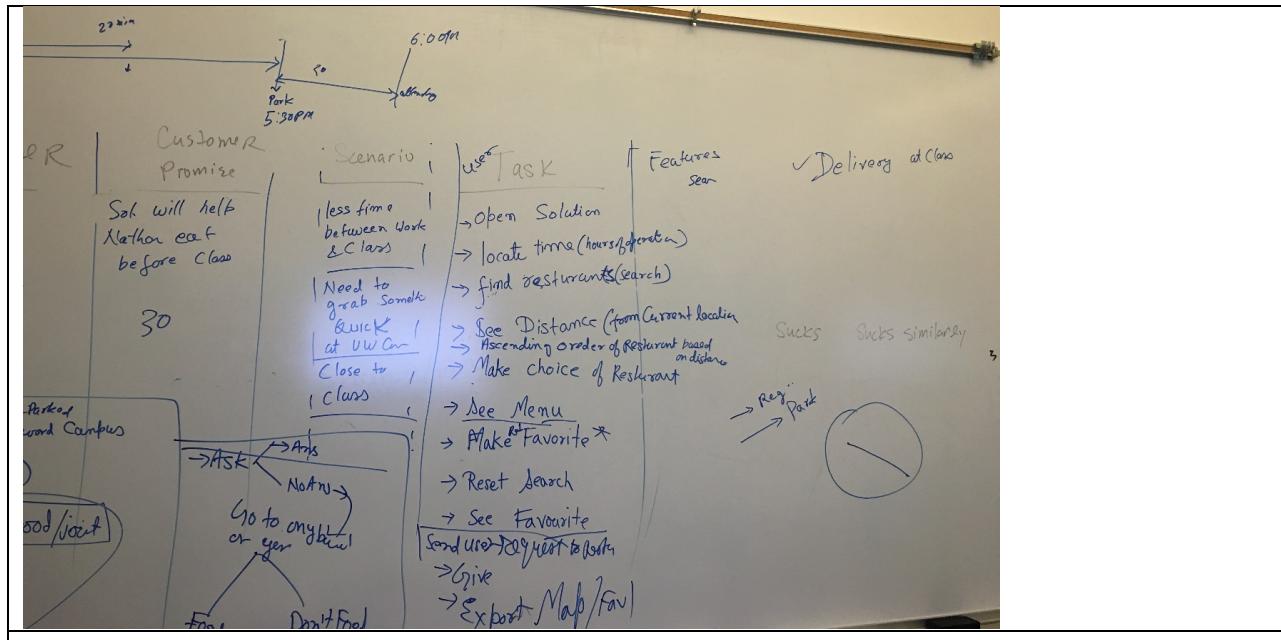
C. Pain Points

The pain points in the Brainstorming and Sketching activities revolved around our individual interpretations of the assignment requirements, as well as task and sketch prioritization. We disagreed about the scope of what an individual task should be, whether very granular or more encompassing user actions, which made defining and prioritizing tasks somewhat contentious. As we brainstormed solutions Erika felt strongly that our proposals need not be limited to a mobile app model, while Bill held that because we knew that we were going to prototype an app our solutions should focus on solutions that design space. Abhishek maintained a mediator role, and in the end we compromised and included a mix of app-centric and analog solutions to our tasks.



D. Photos of Brainstorming





6 Tasks

I need to → Find ~~Find~~ Restaurant at UW Campus

I need to → Make a choice of Restaurant or Food ^{selection}

I need to → Validate hour of operation

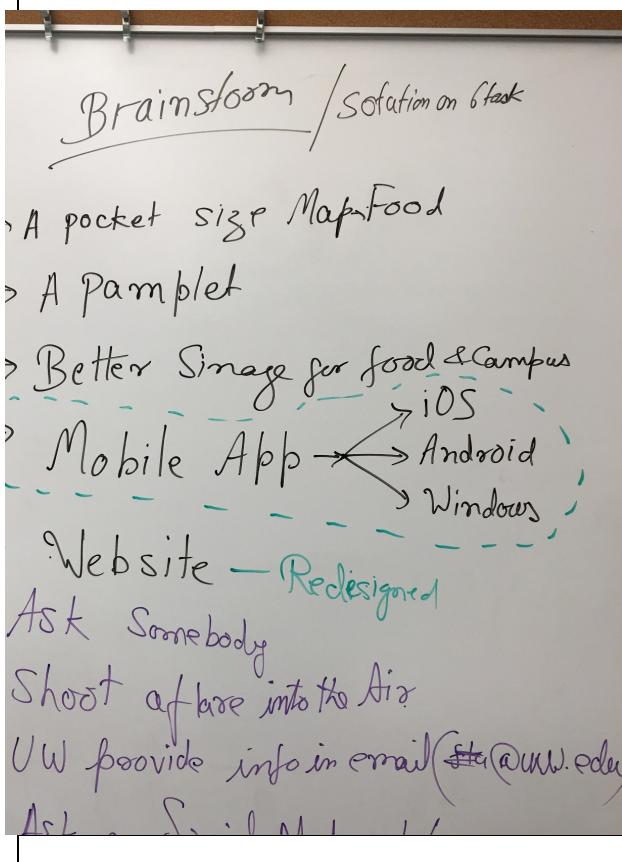
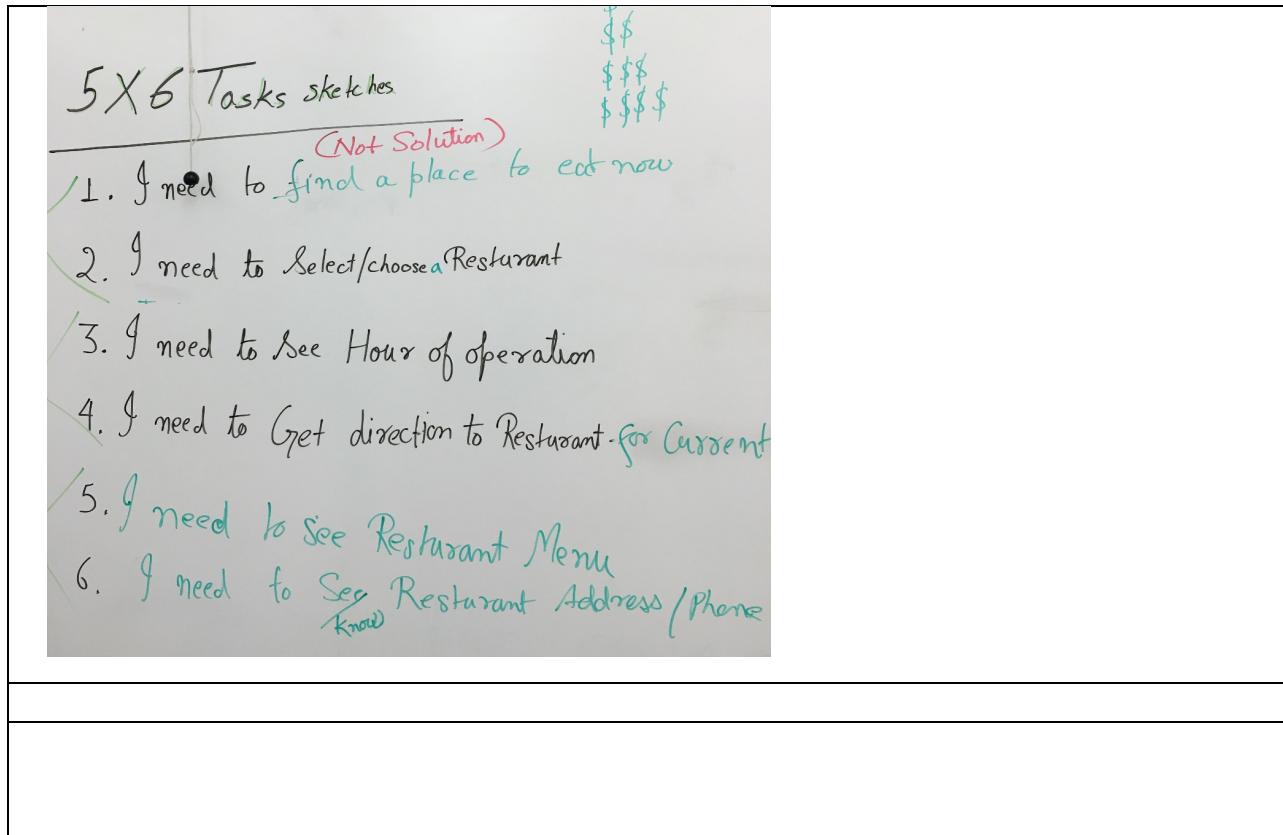
I need to → See the Distance ^{from Current Location} ^{from Class room}

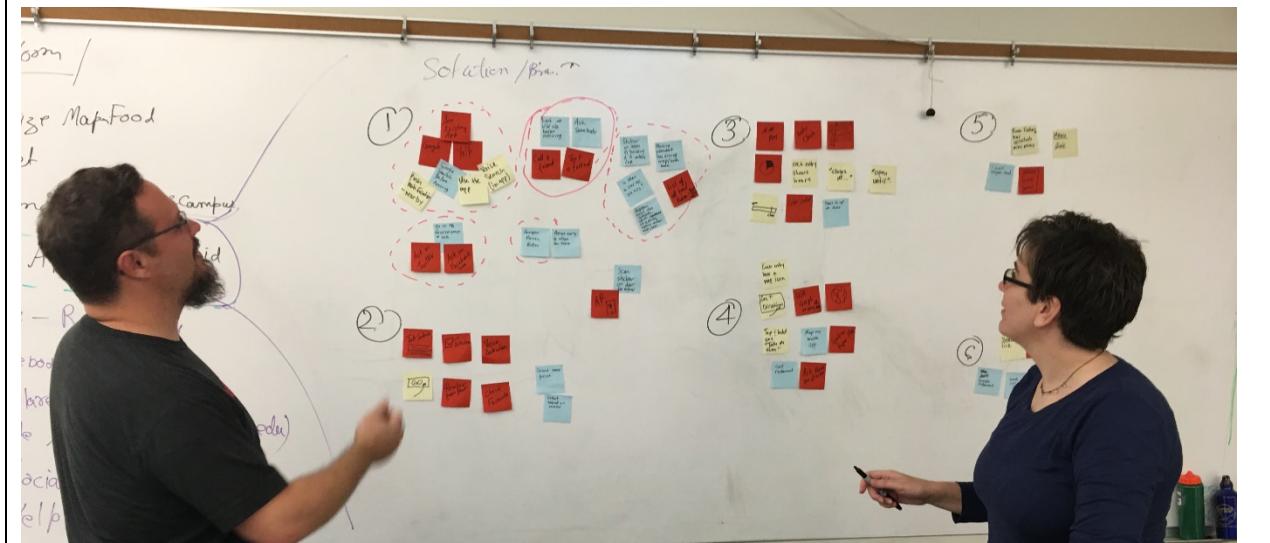
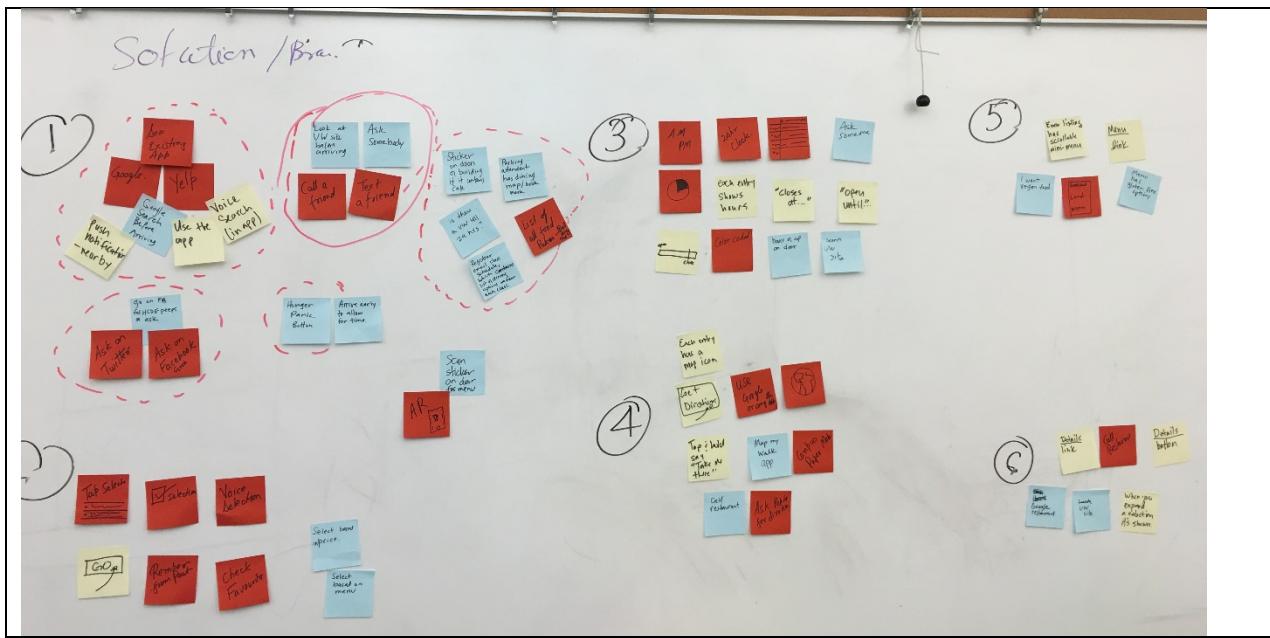
I need to → Get Direction

I need to → Sort choices by Distance

I need to → See the Menu

I need to → Reset Search electronic





E. UC dFramework

The enclosed framework has been reduced to 80% to fit on one page.

Target User	Scenario	Task
Nathan	As usual, Nathan's never sure if he will arrive on campus in time to grab a bite to eat before his evening class starts so his drive is a bit tense. Tonight he's happy when he arrives with fifteen minutes to spare. Luckily, he runs into a classmate carrying a sandwich and a bottle of juice. His classmate points him in the direction of the café, and Nathan dashes off to find his dinner. While he waits in line, he searches Yelp for "food UW campus." He finds a few pins on the campus map, but when he clicks on the pins, they're all Academic buildings. He doesn't know what that means. His food is ready, so he puts away his phone and rushes to class. He's fairly satisfied with his sandwich, but wishes he could find fresh fruit and other low-fat foods close to his classroom. He tells himself he'll research campus food options and view the campus food map on his computer when he gets home, but he forgets.	I need to find a place to eat and make it to class on time I need to search for food place I need to see distance from current location I need to choose a destination I need to reset search I need to get direction to a destination I need to sort by distance I need to see hours of operation
Amrita	<p>It's 8:45 pm on a Wednesday night, and Amrita is leaving her last class of the day. She's dreading riding the bus home on an empty stomach and then having to cook dinner when she gets home; she has at least two hours of homework tonight. She decides to eat on campus and catch a later bus so she can take time to eat a healthy dinner.</p> <p>It's already dark, and Amrita doesn't feel safe wandering around campus or walking very far to find food. She stops in front of a building and pulls her iPhone out of her pocket. She types "where to eat U of WA seattle" into her Google search. The first couple of results (Yelp and Zomato) list restaurants near the UW but not on campus. The fifth search result is the UW Housing and Food Services website. Amrita clicks on the site, but isn't sure what to do on the site. She finally decides to click on "hours of operation," which yields a list of 38 restaurants. She has to scan the entire list top to bottom to find one that is open NOW, but can't find out where any of the restaurants are located or how close they are to her current location. None of the restaurants have clickable links! She hits the back button to return to the main dining page. She clicks on "locations." Again, she gets a long list of restaurants, but needs to click on each one individually to learn about it. From each restaurant page she has to click another link to find out hours of</p>	I need to know what's open right now I need to see menu for specific place I need to export favorites I need to make favorite I need to view favorites I need to search for food place I need to see distance from current location I need to choose a destination I need to reset search I need to get direction to a destination I need to sort by distance I need to see hours of operation

F. Design Requirements from P2

Based on this information our **design requirements** are:

- Provide a way for people to quickly access information about dining locations on the UW campus with their mobile phones: an app.
- A UW-Campus dedicated app, tentatively called “Hungry Huskies” should automatically show nearest open locations at any given time.
- App needs to have a simple, fast search option that provides the three most important factors listed above: proximity, hours of operation, type of food.
- App needs to be programmable to reflect individual’s priorities and preferences.
- App allows users to bookmark favorite locations.
- App needs to provide a walking route/map so user can quickly find location.
- App info should be sharable so people can meet at a location.
- Providing other services, such as nutrition information, directories, reviews.