HUNGRY HUSKIES

get something to eat Right Now!

Team Crazy for Jalfrezi

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I Project Overview

Hungry Huskies is a free mobile app that helps students, faculty, staff, and visitors at the University of Washington's Seattle campus (UW) find a place to eat on campus.

While the app can be used by anyone, it was designed with new students (including evening students) in mind who might be unfamiliar with the UW campus dining locations.

1. Design Question

How do we help people on the UW campus find something to eat whenever they want to eat?

2. Design Challenge

It's hard to find a place to eat on the UW Campus if you're not familiar with the campus.

A. Problems

- *Smartphone searches using Google or Yelp don't yield results for campus restaurants.*
- *The UW website is not searchable by time or location, and it is not mobile-phone friendly.*
- *Students need to find places to eat at all hours (including before and after evening classes, when not all dining venues are open).*

B. Audience

UW students, particularly evening, part-time, and new students; UW staff and faculty; and visitors (including parents of students, guest lecturers, alumni).

3. Design Solution

The Hungry Huskies mobile app provides a quick, simple way to access the complete list of UW restaurants/cafes/markets/food trucks, and view the list of venues based on which locations are closest to the user and open for business at the time of the search. The app also provides information about each dining option, including menus and walking directions.

II Project Scope

The scope of this project is designing the Hungry Huskies screens according to our core users tasks (see page six), and collaborating with developers who will add functionality.

1. In Scope

We have constrained the project to producing an app that has three main screens, as well as three auxiliary, or supporting, screens, with minimal navigation necessary to access most important information. We have not created a timeline for our scope at this time.

We have selected 12 restaurants for this scope that are open in the evening since our core users are people who don't spend their days on the UW campus.

Our scope includes:

- Creating the app for iOS platform for iPhone.
- Backend: Creating database/content management system containing information for 12 restaurants/cafes, in the UW dining system.
    - Restaurant/café/market name, address, building location, and map location
    - Hours of operation
    - Phone number
    - Current menu
- Front end: Design a screen view that: lists restaurants, ranked by proximity and availability (i.e., open at time of search).
- Front end: Design box with restaurant details (logo, type of food served, address, hours, menu, name of building in which restaurant is located, phone number).
- Front end: Design for restaurant screen: a map that contains a walking route and written directions from user's location to dining location.
- Provide with restaurant details: a menu.

2. Not In Scope

During user testing we received feedback about several features we could add to the app. If Hungry Huskies 1.0 is well received, we will investigate making the app available in Android format. We will also conduct more user testing to see which additional features would be most beneficial to our core users. The following tasks are not part of the current scope.

- Backend: expanding database/content management system to hold all 30 restaurants and cafes, four markets, and three food trucks on the UW Campus.
- Creating app in the Android mobile phone platform.
- Creating a version of the app to work with Android's hardware back button.
- Conduct usability testing to see if app is learnable and easier to use without a back button.
- Making it easy for users search for a restaurant/café/market in advance rather than "in the moment."
- Providing push notifications.
- Providing personalized sorting/settings.
- Providing added services, such as membership/login, nutritional information, calorie tracking, social media sharing, pre-ordering.
- Menu overlay can be closed with right swipe.

III Design Requirements: Terminology

The app's Home Screen contains a list of restaurants, cafes, food trucks, and markets on the UW campus. For clarity following this document, the word "restaurant" will be used to represent all dining options. A restaurant might also be referred to as a "location" or a "venue."

IV Design Requirements: Function

We will not launch the Hungry Huskies app until we have complete functionality, allowing users to quickly access the information they need to find places to eat (i.e., proximity of venue to user location, hours of operation, type of food).

P0 = Must have for launch. **P1**= Nice to have for launch. **P2** = For future versions.

Welcome Screen must automatically transition to Home Screen.	P0
Home Screen automatically displays a complete list of on-campus dining venues, starting with restaurants that are currently open and closest to the user's location.	P0
App needs to have a simple, fast automatic sorting mechanism that provides the two most important persona needs as soon as the user lands on Home Screen: proximity to user's location and hours of operation.	P0
App must provide a Details Screen for each restaurant listed on the Home Screen that includes: restaurant logo, brief description of type of food available, address, phone number, name of building in which venue is located, and a map that automatically produces a walking route and walking directions. (Phone number must be tap-able and enable phone to call the number.)	P0
App will allow user to search for a restaurant in advance rather than "in the moment."	P0
When a faded red restaurant icon appears on the map (faced = it's closed), it should still be clickable and link to the restaurant it represents.	P1
App info should be sharable so multiple users can meet at a dining location.	P1
App should provide locations of vending machines on campus (and describe types of payment for machines.)	P1
App needs to be programmable to reflect individual user's priorities and preferences.	P1
App allows users to bookmark favorite locations.	P2
App must provide other services, such as nutrition information, user reviews, and calorie tracking.	P2

V Design Requirements: Design Colors & Icons

- App uses official UW hex colors, including:

#4B2E83 (purple)

#E8E3D3 (light gold)

#85754D (metallic gold)

#D9D9D9 (light grey)

#444444 (dark grey)

#FFFFFF (white)

#000000 (black)

- App created in Illustrator, size 375px w x 667px h.
- App assets include:

Icons: "hamburger" menu icon (vector), back button arrow (vector), "x" icon (Illustrator file, ignore pink background layer)

UW Logo: Official UW "W" logo (vector eps file)

Huskies Image: two huskies image (two Illustrator files, original and final)

The files can be found at: https://github.com/aageek/518B/tree/master/DesignSpec

VI Core User Tasks

1. User needs to see dining options that are open in the current moment and near her current location.
2. User needs to know the hours of operation.
3. User needs to know where the restaurant is located.
4. User needs directions from current location to the dining location.
5. User needs to see menus.

VII User Flow

The app is designed to be used from the Home Screen, utilizing Details Screens for each restaurant. That flow is represented in chart 1. Auxiliary screens, which appear when a user taps on the menu icon in the header, are represented in chart 2.

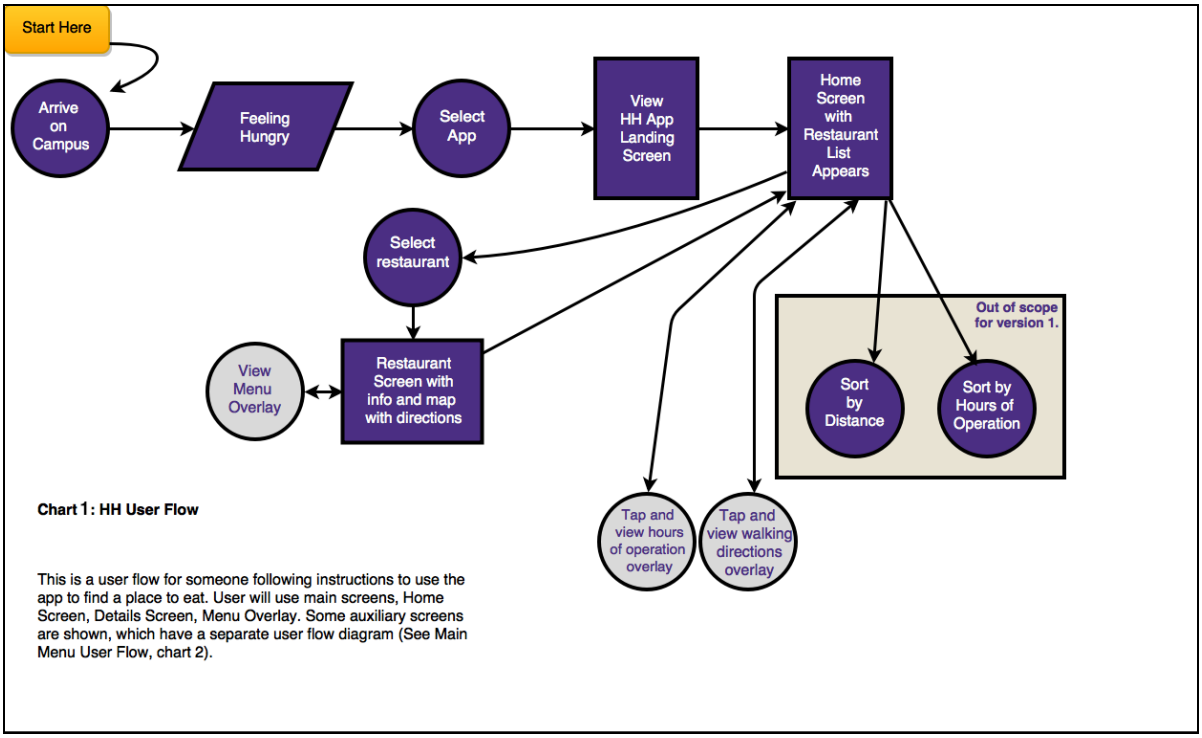


Chart 1: HH User Flow

This is a user flow for someone following instructions to use the app to find a place to eat. User will use main screens, Home Screen, Details Screen, Menu Overlay. Some auxiliary screens are shown, which have a separate user flow diagram (See Main Menu User Flow, chart 2).

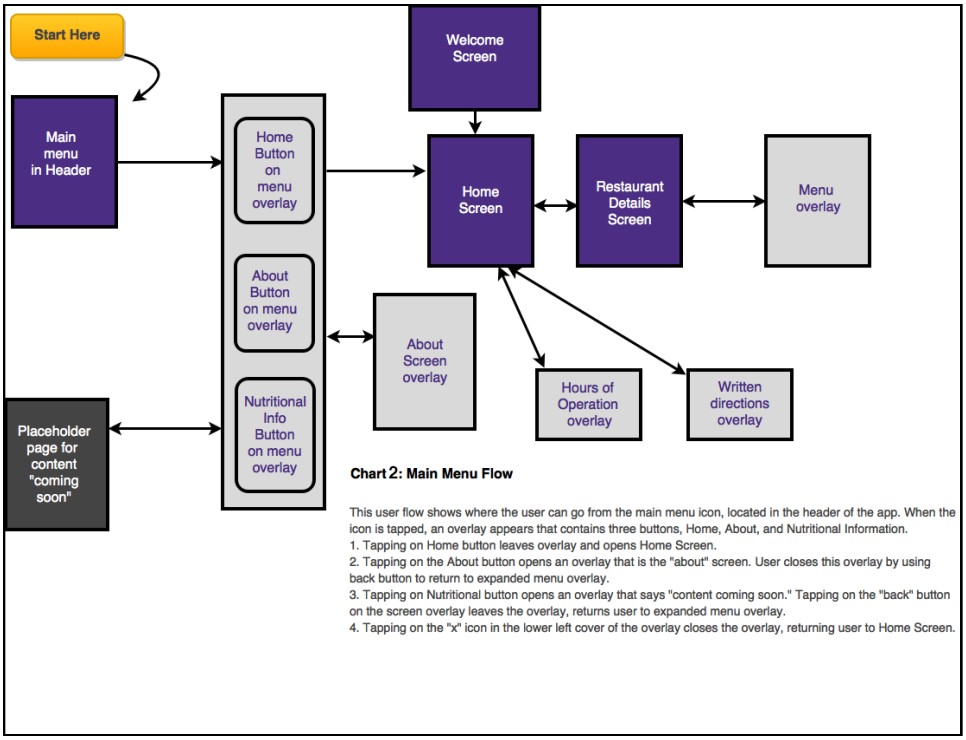


Chart 2: Main Menu Flow

This user flow shows where the user can go from the main menu icon, located in the header of the app. When the icon is tapped, an overlay appears that contains three buttons, Home, About, and Nutritional Information.
1. Tapping on Home button leaves overlay and opens Home Screen.
2. Tapping on the About button opens an overlay that is the "about" screen. User closes this overlay by using back button to return to expanded menu overlay.
3. Tapping on Nutritional button opens an overlay that says "content coming soon." Tapping on the "back" button on the screen overlay leaves the overlay, returns user to expanded menu overlay.
4. Tapping on the "x" icon in the lower left cover of the overlay closes the overlay, returning user to Home Screen.

VIII Screen Specifications: KEY SCREENS

There is a working prototype at: https://invis.io/KQ5AJWQTB

1. Loading “Welcome” Screen

The loading screen, or “Welcome” Screen, automatically transitions to the Home Screen after three seconds, with no transitional animation or effect.

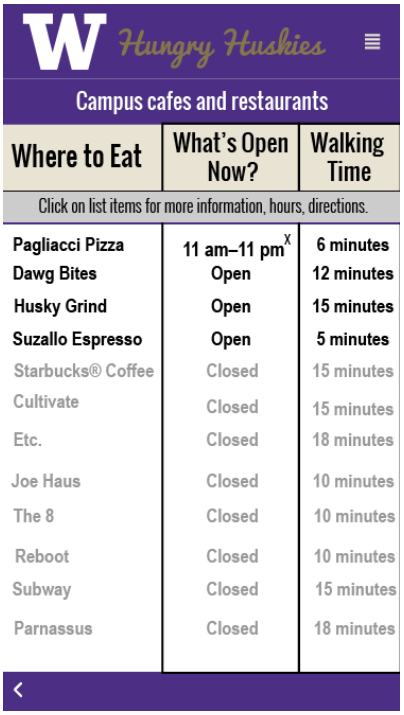
2. Home Screen

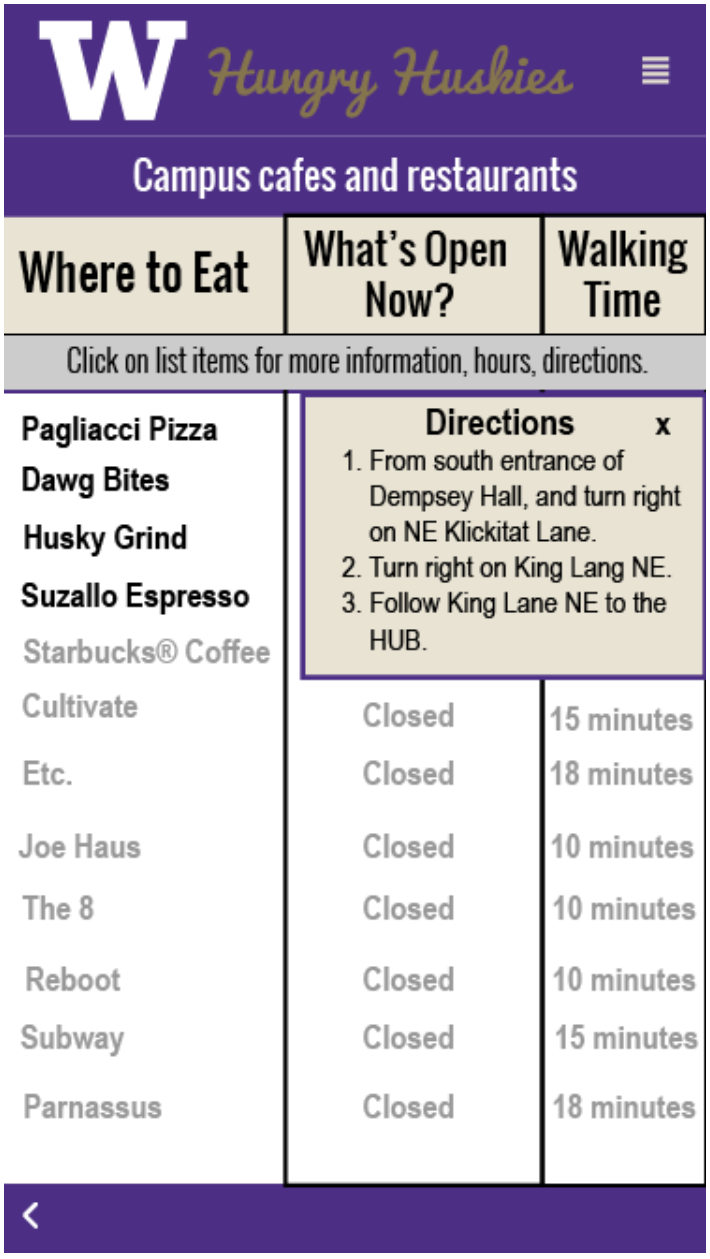
The Home Screen displays a list of 12 dining locations available on the UW campus. Like all screens except the Welcome Screen, the Home Screen content is framed between the purple Hungry Huskies header and the purple footer.

A. The Home Screen will automatically display the restaurants in a list based on each location's proximity to the user's current location and on what is currently open for business. The list should start with the closest restaurant that is still open (and will be open for at least 15 minutes once the user was arrived).

B. The purple Hungry Huskies header is the same size on every screen and contains a small menu icon to the right of the text. The menu icon, as well as the area surrounding it, will be tap-able (the idea is to make the tap-able area a bit larger than the icon for ease of use but not so large that the element is too easily triggered). When the user taps the menu icon an overlay appears that contains a vertical text menu with its own navigation. (See page xxx for overlay.)

C. The footer for this screen has a back button. The footer is the same size on every screen.




Hungry Huskies
Campus cafes and restaurants
Where to Eat
What's Open Now?
Walking Time
Click on list items for more information, hours, directions.
Pagliacci Pizza
Dawg Bites
Husky Grind
Suzallo Espresso
Starbucks® Coffee
Directions
x
1. From south entrance of Dempsey Hall, and turn right on NE Klickitat Lane.
2. Turn right on King Lang NE.
3. Follow King Lane NE to the HUB.
Cultivate
Closed
15 minutes
Etc.
Closed
18 minutes
Joe Haus
Closed
10 minutes
The 8
Closed
10 minutes
Reboot
Closed
10 minutes
Subway
Closed
15 minutes
Parnassus
Closed
18 minutes

Reference #	Element	Behavior
1	“Hamburger” menu icon.	Icon is gold (hex #e8e3d3). On tap, toggle global app menu reveals an overlay with vertical text menu, with the menu changing to white (hex #ffffff) in active state. Make tap-able area larger than menu icon for ease of use. (Header is same size and contains menu icon on all pages, except on Welcome Screen.)
2	Name of a restaurant that is “open.”	On tap, opens Details Screen for the restaurant page linked to its name.
3	Name of restaurant that is “closed.”	Restaurants that are not open at time of query are shown in grey text but are still selectable and behave as #2, above.
4	“What to Eat” column.	What to Eat is the heading for list displaying restaurant names. Static element.
5	“What’s Open Now?” column.	What’s Open Now? is the heading for the list displaying a restaurant’s open or closed status. Static element.
6	“Walking Time” column.	Walking Time heading for the estimated walking time from current location to each restaurant on the list. Static element.
7	“open” and “closed”	On tap, “open” or “closed” is replaced by an overlay with the restaurant’s hours of operation.
8	“6 minutes”	On tap of any time listed in Walking Time column, an overlay appears that contains walking directions to the restaurant.
9	Back button (in footer).	On tap, return to previous screen.

IX Details Screen

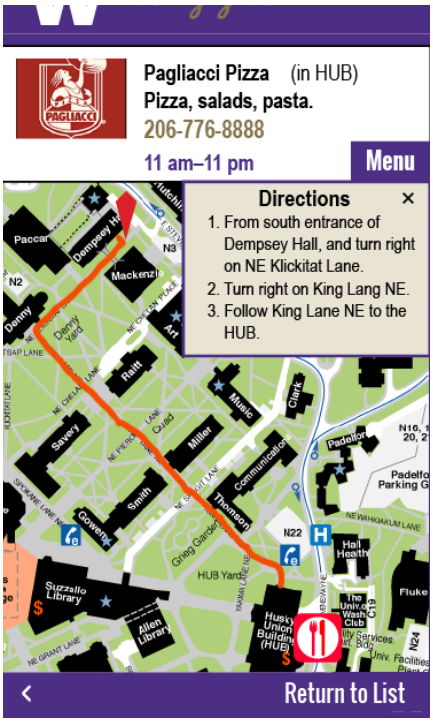
Each restaurant listed on the Home Screen has its own Details Screen, which should appear when the user taps on the restaurant's name on the Home Screen.

The Details Screen has two sections: a white box at the top of the screen and a map that takes up more than ¾ of the screen. The header is the same size and has the same functions wherever it appears in the app. There is also a purple footer, which contains navigational elements.

The white box contains: restaurant logo, name of restaurant, a few words that tell what type of food is served, an address, the phone number, name of building in which it's located, and a menu button. The menu button should be linked to a full-screen overlay of that restaurant's menu.

The map section contains: a map with a walking route from user to restaurant, a red knife and fork icon marking the restaurant's location, and a light gold box in the upper right hand corner of the map that contains written directions.

If the directions contain more than 120 characters, the light gold box should be scrollable or expandable to an overlay that can be undone with a click.



Reference #	Element	Behavior
1	White restaurant information box.	This is static information, except for the menu button (#2) and telephone number (#3).
2	Purple menu button.	On tap of menu button, screen changes to "Menu Screen."
3	Telephone Number.	On tap of telephone number, the user's phone dials the number.
4	Back button (in footer).	On tap, go to Home Screen if that was previous screen. In all other instances, the back button should return user to the previous screen.
5	Red restaurant icon.	On tap, reveal menu overlay.
6	Directions box close button.	On tap, close directions box. Make tap-able area larger than the "x" for ease of use.
7	Walking route.	Dynamic route generated by Google Maps; no other behavior.

X Menu Overlay

The Menu Overlay for a restaurant appears when a user taps the purple "menu" button located in the white box on a restaurant's Details Screen.

Like the Details Screen, the Menu Overlay contains two parts:

1. A white box containing the restaurant's logo and information.
2. A light gold box, occupying more than ¾ of the screen, containing a menu.

The white restaurant box is the same the one on the Details Screen, with a logo, type of food served, address, name of building in which it's located, and the telephone number. Notice that on the Menu Overlay, the only part of the white box that changes is the purple "menu" button, which has been changed the overlay to a purple "map" button. Tapping the map button returns user to map view.

The light gold box contains the menu for the restaurant.

The purple footer contains a back button on the left, a “return to list” button, and an “x” icon, which, when tapped, closes the overlay. On this overlay, the back button returns the screen to Details Screen with map.

Reference #	Element	Behavior
1	Map button.	On tap, return to previous Details Screen with map display..
2	Close button.	On tap, overlay disappears; return to previous Details Screen with map display.

Reference #	Element	Behavior
3	Back button.	On tap, return to previous Details Screen with map display.
4	Return to List button.	On tap, returns to Home Screen.

XI Screen Specifications: AUXILIARY SCREENS

There is a working prototype at: https://invis.io/KQ5AJWQTB

I. Main Menu Overlay

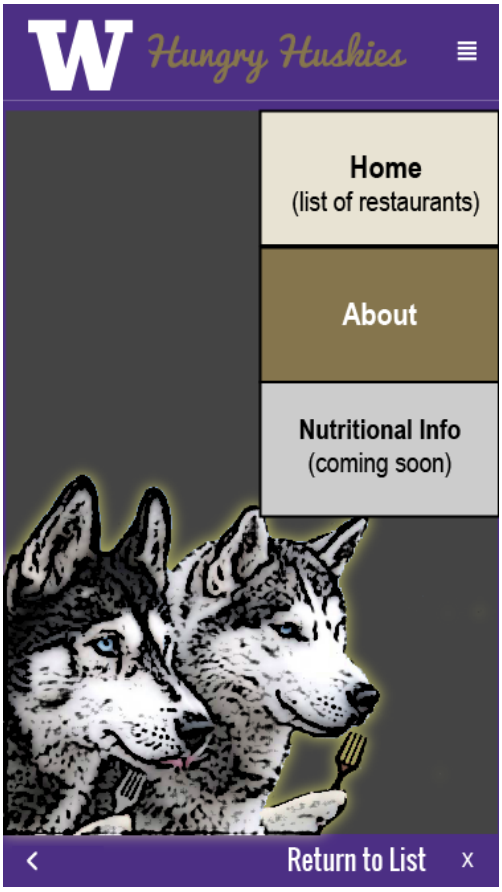
The expanded main menu appears as an overlay when a user taps on the menu icon in the header.

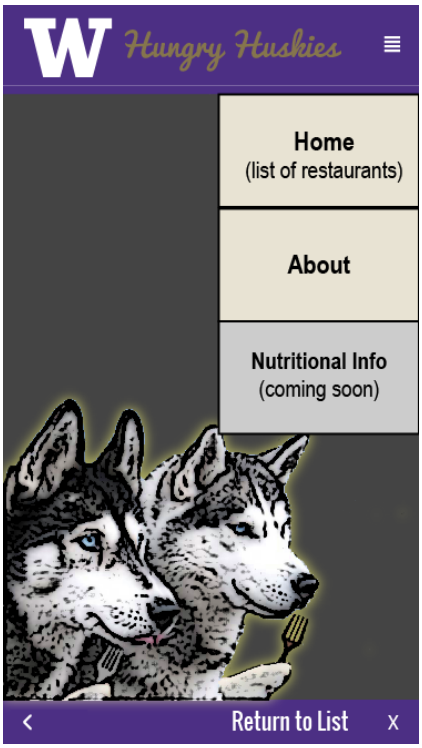
A. 1. All screens in the app, except for the Welcome Screen, have the same sized purple header, which contains the menu icon.

B. 2. Menu items listed in overlay are tap-able and link to other screens.

C. 3. Menu overlay should close when user taps "X" located in the lower loft corner or taps outside overlay.

D. 4. While in overlay, tapping the back button returns user to previous screen in overlay.

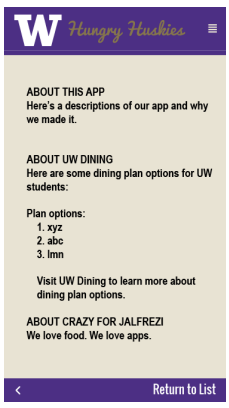




Reference #	Element	Behavior
1	Screen in user when user taps on menu icon.	When overlay is active, dim the screen under overlay with black at 100% opacity and 61% fill value.
2	Home button.	On tap, show active state (color changes from hex #e8e3d3 to #85754d, text changes from #000000 to #ffffff), go to Home Screen. (Exiting overlay)
3	About button.	On tap, show active state (color changes from hex #e8e3d3 to #85754d, text changes from #000000 to #ffffff), go to About Screen.
4	Nutrition button.	On tap, show active state (color changes from hex #d9d9d9 to #444444, text changes from #000000 to #ffffff), go to "Coming Soon" Screen.

XII About Screen

The About Screen will display information about the app, the UW dining system, and the app creators.



Reference #	Element	Behavior
1	“Hamburger” menu icon.	On tap, toggle global app menu reveals an overlay with vertical text menu. Make tap-able area larger than menu icon for ease of use. (Header same on all pages, but does not appear on Welcome Screen.)
2	Back button.	On tap, return to menu overlay.

XIII Nutrition “Coming Soon” Screen

This placeholder screen is used let users know that content is not yet available but soon to be an app feature.

Reference #	Element	Behavior
1	“Hamburger” menu icon.	On tap, toggle global app menu reveals an overlay with vertical text menu. Make tap-able area larger than menu icon for ease of use. (Header same on all pages, but does not appear on Welcome Screen.)
2	Back button.	On tap, return to menu overlay.

XIV Design Decisions

Using our core tasks and information gather during usability studies, we

Decision	Rationale
App transitions from Welcome Screen quickly, leaving user at Home Screen.	Research showed that users are in a hurry. The app is designed to put actionable information at the fingertips as soon as possible.
No search capability.	Our personas aren't familiar enough with the campus to know what to search for, and this version of the app only contains 12 restaurants, all visible on the Home Screen. User only needs to tap one to select it. The app is designed to be used from the Home Screen since its main purpose is to show users what is open and closed at the moment of query. As we add more restaurants, we may add search capability.
Include written directions on map.	User testing showed that users wanted more guidance than just the on-map route indicator. They also wanted the directions, map, and walking route to appear at the same time so they didn't have to look or tap for more information.
Use text button.	During testing we found that users wanted a back button but they did not associate the Home Screen containing the list of restaurants with a text "home" button or with a house icon. To make it very clear and fast for users to return to the list of restaurants to start a new search, we used a text button, "return to list."

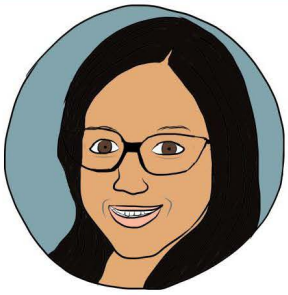
Decision	Rationale
Restaurant icon on the map can be tapped to open the menu.	User testing showed that some users expected tapping the red restaurant icon on the map would reveal the menu, so we added this feature.
Added back buttons.	Originally we thought that users would understand that the entire app is directed through the list of restaurants. Although Android device hardware will support back button functionality, users in testing asked for a back button.
Show that restaurants are “Open” or “Closed” rather than show hours of operation on Home Screen.	In testing, users wanted to know if something was open or close first, then they wanted to know the hours. So, we used black text for open restaurants and grey text for closed restaurants to help them see the open options first. We added a line of instruction under the three column headings, telling users to tap on an item in a column for more info. Tapping on “open” or “closed” reveals hours of operation. Tapping on name of restaurant opens that restaurant’s details page.
Show overlay of directions when user taps on item in walking time column.	In testing, users wanted to access directions and location as soon as they saw the walking time.

XV Personas

Our research suggests a potential user base comprised mostly of current UW students (95%) who eat on campus infrequently (47% ate on campus fewer than five times per year) and who are overwhelmingly on the campus after 5pm (84%). Based on secondary research, a student survey, and in-context interviews, we have composed three personas that represent our target users.

Primary Persona

Amrita



- 27 years old
- Moved to US from India 10 years ago
  Full-time graduate student
- Lives off-campus
- iPhone user, often tries new apps

"Can I get healthy food RIGHT NOW?"

LIFESTYLE

Amrita has returned to college, seeking a new career after several years in an unfulfilling job. She is new to the university, and hasn't quite figured out how to navigate the campus yet. As a graduate student she spends long days on campus, and often doesn't have the time to eat off-campus or head back to her apartment in a different part of town.

GOALS

Staying healthy is a big part of Amrita's daily life; she takes nutrition seriously. She'd rather take a longer walk to a café that offered salad and fruit than settle for a cheeseburger. She would like to find a convenient place on campus, but wants to know ahead of time what's on the menu so she doesn't waste her time walking to a place that doesn't have healthy options.

PAIN POINTS

Amrita would normally use Yelp or Google to find places off-campus, but can't pinpoint what she needs while on campus. She has used the university website to search for places to eat, but struggled with the decentralized nature of the information. She had to go from page to page to find hours, menus, and locations. Once she found a likely spot to eat, she could not easily locate it on the campus map or figure out how long it would take her to walk there.

Primary Persona

Nathan

- 42 years old
  Part-time graduate student/Full-time job
- Lives off-campus
- Married with two young children
- Android user, uses many apps, likes to customize his mobile experience

"What's closest to my current location?"

LIFESTYLE

Nathan is attending night classes after working all day at his full-time job. He travels 30 minutes from work to campus at least once a week, sometimes more. When he arrives on campus he usually has very little time to find a bite before class. Sometimes he brings food with him, but on those occasions when he needs to get something to eat on campus he never knows what's available near his classroom or near the library where he does most of his research.

GOALS

Nathan is generally in a hurry when he's not in class. He wants to manage his time on campus so he won't be late to class or waste time after class so he can get back to his family. He's a conscientious person, and wants to be able to eat in class without disturbing others.

PAIN POINTS

Nathan eats on campus irregularly, so he doesn't have a good picture of where restaurants are located. He frequents only a couple of locations on campus, and can't be bothered to walk long distances or scout the campus for places that might be open. Nathan uses Yelp when off-campus, but for on-campus options Yelp is letting him down.

Secondary Persona

Murat

- 19 years old
  Full-time undergrad student
- Lives on-campus
- iPhone user, installs and uses many apps, lives on his phone

"I just want to have pizza with my friends!"

LIFESTYLE

Murat is living the university life to the fullest. He spends most of his time on campus, studying, participating in robot club, attending intermural ultimate Frisbee practice, and sharing good times with his friends late into the night. He loves pizza, which has become his go-to meal. Murat is used to being able to share his whereabouts and activities with his friends via his mobile device, and could not imagine a world where he was out of touch with his social circle.

GOALS

Murat never knows where he's going to be, or when he may want to get his pizza fix. He needs to know what's open now, and whether or not there will be pizza. No pizza, no Murat. Murat wants to feel close to his new college friends, and always wants to gather people for socializing.

PAIN POINTS

Murat does almost all of his web activities on his mobile device, and finds the UW website poorly formatted for mobile viewing. It's too hard to find the information that he wants quickly. He uses Google and Yelp for searches, but the results are too broad for him when he just wants to find options on campus.

Appendix

Prototype

See a working prototype at: https://invis.io/KQ5AJWQTB

Project Files

See a copy of project documents at: https://github.com/aageek/518B/tree/master/DesignSpec

add .....research results, scenarios, UC dFramework mages, etc.)