Munch

A Prototype
For A Food Delivery App

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Project Overview

Description

The purpose of this project is to design a prototype for a mobile food delivery application that allows college students to order food in order to save time from walking to the restaurants on campus.

Objective

The objective of my prototype is to allow users to save their favorite meals so that they may quickly reorder it again. To meet that objective, I downloaded the top four mobile food delivery apps to study the way things are handled currently by those apps. Then I created both low and high-fidelity digital designs for prototypes and completed usability studies to test the prototype.

Section 1: Research

Description

To understand different sets of users and identify the unique needs and pain points, I brainstormed the different types of target users, their goals, and their pain points (frustrations) and then developed personas for each user type.

Target Users

- ☐ Students
- ☐ Faculty
- ☐ Staff
- ☐ Instructors/professors
- ☐ Disabled
- ☐ Visitors & parents of students

Main User Profile

I selected a user profile that reflected a college professor who is, usually, unable to wait in line to order a meal because of his busy work schedule. I named this persona Clarence Reed (on page 6).

Other personas:

Shanté Quinn

Law Student- late night

Bio

Shanté is a second year law student who spends many late night hours studying. She usually eats out because she doesn't feel like preparing meals after long studying hours. Also, because of her busy schedule, she doesn't have time to explore all the different restaurants or activities on campus.

Goals

- To have access to late night restaurants
- To order delivery
- To view restaurant menus
- To receive text or email notifications of restaurant deals or campus events that are providing free food.

Frustrations

- doesn't know all the available restaurants and their hours
- doesn't have time to walk to restaurants and wait in line.

Christopher Jones

Administrative Specialist

Bio

Christopher is an administrative specialist at the University of Little Rock. He is responsible for coordinating office activities. preparing reports, and scheduling meetings & training. Sometimes, a training may last several hours and Christopher must arrange lunch for staff members.

Goals

- to order bulk meals
- to order meals a day or two in advance
- to have meals delivered so he does not need to leave a meeting/training

Frustrations

- not single platform that lists all the available restaurants on campus
- has to leave meetings/training to pick up a food order

Bio

Cynthia is a blind student who's attending her first year at the University of Arkansas. She feels confident navigating through the campus to the different restaurants and activities. However, she still feels uncomfortable walking on campus at night because there are fewer people attending classes at night, and she's concerned about being victimized.

Cynthia Travis

Disabled student

Goals

- to order meals to be delivered to her
- to access a food service app that's accessible for blind people
- an easy way to let the deliverer know that she is disabled, and therefore needs time to open the door when her delivery arrives

Frustrations

- most food service apps don't give an option to leave additional delivery messages
- deliverers often don't give her enough time to open the door
- food service app does not offer voice command so she could order
- most food icons are not labeled, so she does not know what it is or it's purpose.

Bio

Jane is a non-traditional college student who attends campus with her significant other. She struggles to navigate through campus, and often takes the wrong direction while traveling to her different classes. She's ok with getting familiar with the campus during the day, but at night, she prefers not to travel on campus alone.

Jane Wallace

Student

Goals

- to discover the food options on campus
- to have her meals delivered to her so that she doesn't have to travel much on campus at night
- to have a meal delivered to someone else & allow delivery notifications to be sent to a different phone number.

Frustrations

- doesn't feel safe traveling on campus at night
- on a tight budget

Main User Persona

Clarence Reed

Professor & Advisor

Goals

- to order meals to be delivered to him
- an easy way to discover food options on campus
- an app that saves his favorite meals so he can quickly reorder them when wanted.

Frustrations

- no time to wait in line for a meal
- doesn't like to waste time listening to the menu options when calling a restaurant to place an order.
- doesn't like to re-entering the same information every time he orders, like his phone number for notifications, or his delivery address (wants an option to change his credentials).

Bio

Clarence is a professor at the University of Arkansas. Between teaching classes and advising students, Clarence barely has time for lunch breaks.

User Flow Journey

Who is the user?
Clarence Reed, Professor/Advisor

What does this user want on the app?

- ☐ to order campus meals for delivery.
- ☐ to easily view restaurant/food options.
- ☐ quick access to saved meal favorites.
- ☐ to save his credentials, like his delivery location, login email (with an option to change his information) so that he's not wasting time re-entering the same information each time he orders.

How is the user going to achieve their goals?

- ☐ Quickly view restaurant options & meal options that are saved to his favorites.
- ☐ Easily & quickly enter delivery/contact information for orders
- ☐ Submit orders and receive confirmation
- ☐ Click on a button to save meals to favorites

What must they do to reach those goals?

- ☐ Open the Munch app
- ☐ Discoverability & predictability: select the favorites button to view his list of favorite meals
- ☐ Discoverability & efficiency: select option to deliver/contact to saved info.
- ☐ Forgiveness: option to log in as another user.

What issues might they run into?

Comments

- ☐ Wish I could save my favorite meals for quick re-ordering.
- ☐ Would be great if I could sort meals by food type.
- ☐ I hate re-entering the same credentials each time I order.

Questions

- ☐ Which restaurant serves what meal?
- ☐ When can I expect my meals to be delivered?
- ☐ How can I save a meal as my favorite?
- ☐ How can I find a meal that I really enjoyed so that I can save it as a favorite?

Ideas

- ☐ Give an option to save a delivery address and phone number for future use
- ☐ Place favorite and sort buttons at the top or fixed bottom for discoverability
- ☐ Use a heart icon to easily save a dish into the favorites page.
- ☐ Give an option to use a different delivery address/phone number.
- ☐ Auto-populate recently used email addresses

When might they perform these tasks?

- ☐ When he places a food order/delivery request on the app
- ☐ When he is too busy to call an order or pick-up a meal

Section 2: Design Flow

Description

Before diving into wireframing, I narrowed down the context to a certain situation and focused the scope on what may go through my persona's mind as he navigates through the app to complete that situation. I began by creating a scenario and a goal for my persona (and my testing participants) to complete. Then, I created a flow path of how my persona may navigate the app to accomplish his goal.

Scenario

Clarence wants to save the description of a meal he had recently ordered to his list of favorite meals so that he can easily reorder it again.

Goal:
Save a previously ordered meal to the list of favorites so that he can easily reorder it again.

Steps:

1. Clarence opens the app
2. Clarence selects the ordered button to view previous orders
3. Clarence locates his most recent order and selects the heart icon to save it to his list of favorite meals.
4. Clarence navigates to his favorite meals to make sure it shows his recent listing.

The Process

Normal Flow Path

A returning user launches the app to view his most recent order and save it as a favorite.

Step	User Actions	System Actions
1	Launches app	Displays app logo, then displays home screen of a list of 6 campus dining options including their ☐ Photos & hours of operation ☐ Locations/maps ☐ Short description ☐ Menu link Quick links at the bottom of screen: ☐ Home

		☐ Orders ☐ Favorites ☐ Account Quick links at the top of screen: ☐ Search ☐ Delivery/Pick-up ☐ Pre-order Since the user has already created an account with this device, there is no need to sign-in.
2	Selects the Orders button	Displays a list of the recent orders. ☐ Includes photo and heart icon overlaying the photo
4	Selects the white heart icon on the most recent order	Displays a red heart icon.
5	Clicks on favorites button	Displays list of favorite orders including the order the user just selected as a favorite.

Alternative Flow Paths

AFJ - 1: user must also sign-in

Step	User Actions	System Actions
1	Launches app	Displays app logo, then displays home screen of a list of 6 campus dining options including their ☐ Photos & hours of operation ☐ Locations/maps ☐ Short description ☐ Menu link Quick links at the bottom of screen: ☐ Home ☐ Orders ☐ Favorites ☐ Account Quick links at the top of screen: ☐ Search ☐ Delivery/Pick-up ☐ Pre-order

2	Selects the Orders button	Displays sign-in button with message to login to order.
2a	Selects the sign in button	Displays a sign-in screen: since user has already created an account, their email is pre-populated, but has an option to sign in with another google account or student account T#
2b	Enters password & selects the continue button	Displays a list of the recent orders. ☐ Includes photo and heart icon overlaying the photo
4	Selects the white heart icon on the most recent order	Displays a red heart icon.
5	Clicks on favorites button	Displays list of favorite orders including the order the user just selected as a favorite.

AFJ - 2: user must also sign-in, but chooses to sign-in with google account

Step	User Actions	System Actions
1	Launches app	Displays app logo, then displays home screen of a list of 6 campus dining options including their ☐ Photos & hours of operation ☐ Locations/maps ☐ Short description ☐ Menu link Quick links at the bottom of screen: ☐ Home ☐ Orders ☐ Favorites ☐ Account Quick links at the top of screen: ☐ Search ☐ Delivery/Pick-up ☐ Pre-order
2	Selects the Orders button	Displays sign-in button with message to login to order.
2a	Selects the sign in button	Displays a sign-in screen: since user has already created an account, their email is pre-populated, but has an option to sign in with another google account or student account T#

2b	Selects the Google button	Displays a message requesting permission to allow the app and website to share information about the user. Includes a *cancel* or *continue* button
2c	Selects the continue button	Displays Google sign in account options
2c	Selects an account button	Displays a list of the recent orders. ☐ Includes photo and heart icon overlaying the photo
4	Selects the white heart icon on the most recent order	Displays a red heart icon.
5	Clicks on favorites button	Displays list of favorite orders including the order the user just selected as a favorite.

AFJ - 3: user must also sign-in, but chooses to sign-in with T-number (T#)

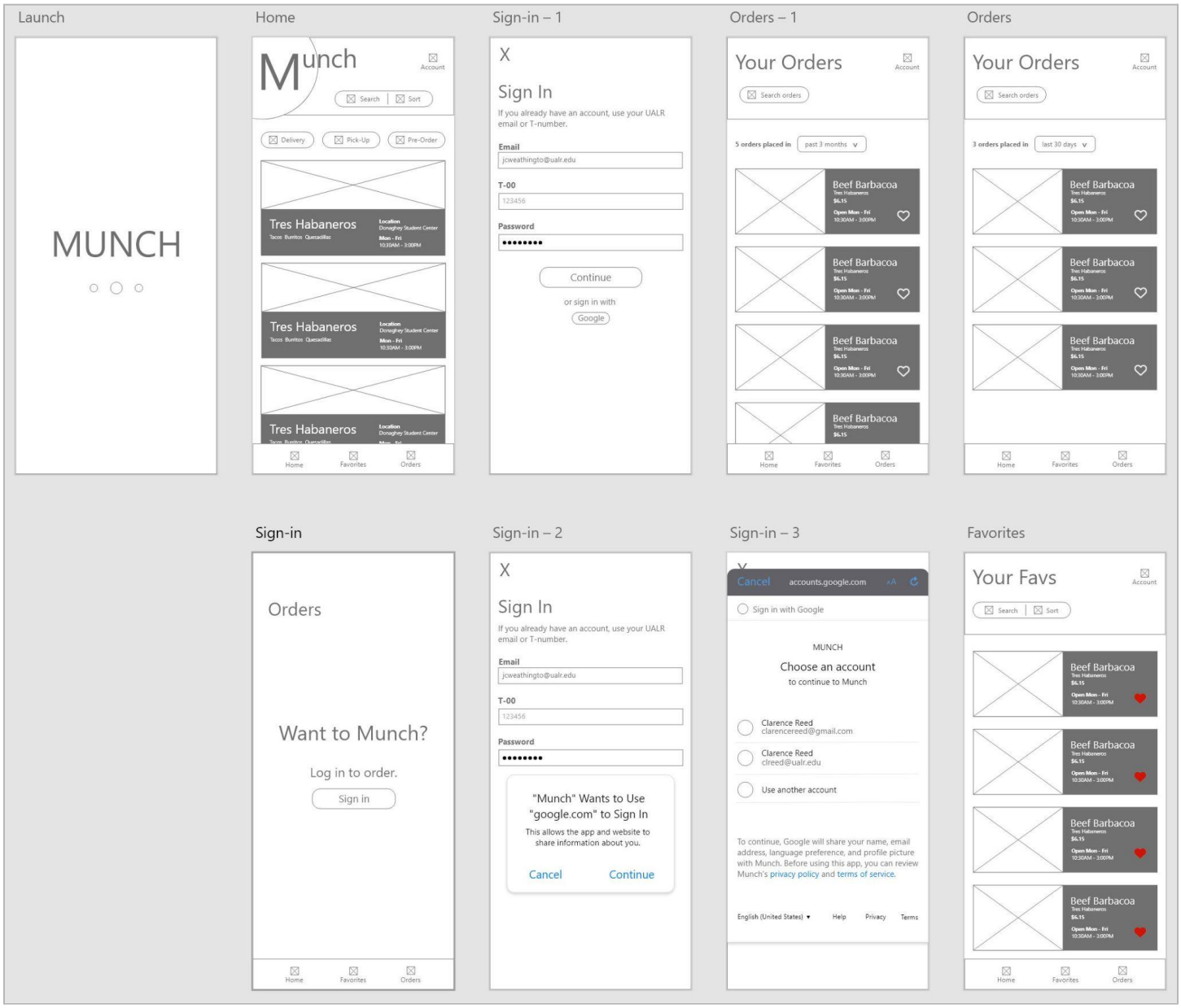
Step	User Actions	System Actions
1	Launches app	Displays app logo, then displays home screen of a list of 6 campus dining options including their ☐ Photos & hours of operation ☐ Locations/maps ☐ Short description ☐ Menu link Quick links at the bottom of screen: ☐ Home ☐ Orders ☐ Favorites ☐ Account Quick links at the top of screen: ☐ Search ☐ Delivery/Pick-up ☐ Pre-order
2	Selects the Orders button	Displays sign-in button with message to login to order.
2a	Selects the sign in button	Displays a sign-in screen: since user has already created an account, their email & password is pre-populated, but has an option to sign in with another google account or student account T#
2c	Enters T# and password, then selects the	Displays a list of the recent orders.

	continue button	☐ Includes photo and heart icon overlaying the photo
4	Selects the white heart icon on the most recent order	Displays a red heart icon.
5	Clicks on favorites button	Displays list of favorite orders including the order the user just selected as a favorite.

AFJ - 4: user must log-in to the app before completing their task

Step	User Actions	System Actions
1	Launches app	Displays a sign-in screen: since user has already created an account, their email is pre-populated, but has an option to sign in with another google account or student account T#
2	Selects the continue button	Displays home screen of a list of 6 campus dining options including their ☐ Photos & hours of operation ☐ Locations/maps ☐ Short description ☐ Menu link Quick links at the bottom of screen: ☐ Home ☐ Orders ☐ Favorites ☐ Account Quick links at the top of screen: ☐ Search ☐ Delivery/Pick-up ☐ Pre-order
3	Selects the orders button	Displays a list of the recent orders. ☐ Includes photo and heart icon overlaying the photo
4	Selects the white heart icon on the most recent order	Displays a red heart icon.
5	Clicks on favorites button	Displays list of favorite orders including the order the user just selected as a favorite.

Wireframes



Reflection: Design Flow

Creating the flow paths before the wireframes definitely helped to save time in the design process because I knew exactly what I was designing and for what purpose. I did add one more alternative while developing the wireframes; the option to search for orders placed in the past 30 days to past 3 months. It wasn't until I was creating the Order wireframe that I considered the number of meals some people may have in their order history. Some people eat out more than others. To make it easier to sort through previously ordered meals, I decided to limit the length of time that data is saved and include an option for users to sort through that history.

Section 3: Prototype Process

Description

After wireframing, I converted my low-fidelity to a prototype to confirm how each screen and action moves to another. Then, I refined and improved the low-fi into a high-fi prototype.

Prototype Link

Check out the high-fidelity prototype here, High-Fi Prototype.

Application of Design Principles

The following design principles were applied in an effort to create an intuitive user design.

Affordances: bright buttons and the drop-down menu for the Orders history page were applied so that users could easily recognize how to perform the interaction.

Explorability: the home, favorites, and order links are fixed at the bottom of every page so that users can easily return home or abandon a task.

Understandable icons with comprehensive labeling so users could quickly identify delivery, pick-up, and pre-order buttons.

Responsive feedback for the launcher page so users understood the app was loading.

Section 4: Usability Testing

Description

Usability testing included three participants.

- ☐ 2 males ages 55 & 57
- ☐ 1 female age 59

None of the participants have experience using food delivery apps.
Each participant was given a specific scenario and task to complete. For consistency in each testing session, I used a moderator script.

Scenario
“You are a college professor who recently used the Munch app to order a meal. Now you want to save your recent order as a favorite so that you can easily reorder it in the future.”

Task
Save a previously ordered meal to your list of favorites.

User Testing Results

Negative Findings: Efficiency and Comprehensibility
Both male participants struggled with locating their orders. Their initial response was to select the restaurant links in an attempt to view meal options. During the testing session, one user asked if the campus dining images were supposed to be meal options or a link to meal options. For their second attempt, the male users selected *accounts* at the top right. On their third attempt, they selected orders at the bottom of the screen and were able to complete the task from there. However, the female user initially selected the favorites button, then the orders button to choose a recently ordered meal as a favorite. All three users showed signs of struggle with signing into the app.

Positive Findings: Explorability
One of the users did not comprehend the meaning of the heart icon. Before clicking on the white heart icon on the Orders page, he left Orders to explore the Favorites page. After seeing the red hearts on the Favorites page, he returned to orders and clicked the white heart icon.

User Feedback
Each user recommended auto-populating the password or including a statement directing users to enter their password to sign into the app for consistency since the email auto-populates. One user advised changing the color of the sign-in instructions to red so that users don’t scan over it.

Analysis

I think auto-populating the password for returning users would help make signing into the app efficient and consistent since the email is auto-populated. Also may need to rename the heading on the main page from Campus Dining to Campus Restaurants so that users comprehend that by clicking on the restaurant name, they may be directed to a page where they may order meals from that restaurant

Section 5: Visual Design

Description

UALR approved colors were used to design the app. Colors were pulled from the UALR website.

Light Grey	#eeeeee	238	238	238	5%	4%	4%	0%
Dark Grey	#333333	51	51	51	69%	63%	62%	58%

Tertiary Brand Colors — Minimal Use Only

Color Name	Hex	R	G	B	C	M	Y	K
Daffodil	#ffe579	255	229	121	1	7%	62%	0%
Gold	#ffbf00	255	191	0	0%	26%	100%	0%
Pumpkin	#d5410b	213	65	11	5	90%	100%	0%

Reflection: Visual Design

The brand, Munch, was chosen for a simple, memorable name that also reflects the site's purpose. A minimalist design was applied so that users could easily and quickly navigate through the app. For positive interactions, primary buttons, like meals and restaurants, are designed to accommodate the average thumb for easy interaction.
To make the prototype feel more like an app, a loader animation is applied on the launcher page as feedback to reinforce that users have initiated an action.

Daffodil, gold, and pumpkin colors were applied to create an optimistic and positive vibe. I used bright colors sparingly for visual interest and to deliver a sense of order; bright colors are reserved for headings and affordances (buttons & links). However, based on my user feedback, I may consider applying the pumpkin color to key instructions like the sign-in instructions.

Also, I was surprised that one user did not comprehend the purpose of the white heart icon. I may consider redesigning the icon to be a white **outlined** heart to imply that it is empty. Maybe this would improve affordances and users would explore whether or not the outlined heart is interactive.