Black Bear Foodshare

System Design Document

Olive Food Solutions
Dr. Scott Marzilli
Team Members: Dumas Wesley, Kaulenas Corey, Moody-Broen Makai, Sima Denis, Sholler Jakob

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1. Introduction

This is a capstone project for Dr. T Scott Marzilli, Associate Provost of Student Success & Innovation, in partial fulfillment of the computer science BS degree for the University of Maine. Dr. Mazilli places great emphasis on the importance of providing the necessary resources and opportunities for students to succeed at the University of Maine. The impetus of this project comes from the passion Dr. Marzilli and our team share in providing judgement free opportunities for students dealing with food insecurity, as well as furthering the elimination of food waste on our campus. The purpose of this project is to develop an application to allow hosts of catered events to easily inform students of excess food on campus. These posts will include the food, photos of the food, and the location. The goal of this project is to reduce waste and increase sustainability on campus, while also complying with regulations to make sure the excess food is safe to consume.

1.1 Purpose of This Document

The Purpose of this user interface design document is to establish a clear set of guidelines for how the application's interface components will be organized, displayed, and developed. In addition to presenting prototypes for the UI elements, this document outlines the underlying data structures and identifies any physical reports that could be generated, such as surveys for Black Bear Foodshare.

1.2 References

- Olive Food Solutions, System Requirements Specification
  System Requirements Specification
- Olive Food Solutions, System Design Document
  System Design Document

2. User Interface Standards

This section establishes the design standards that will guide the development of Black Bear Foodshare's user interface. These standards ensure that developers maintain a consistent, intuitive, and coherent experience across all components of the system.

- Header
  - The header will be consistent across all pages and have buttons for home or settings
  - At any point the user should be able to access the home screen through the Header navigation bar
- Log In
  - Will only be accessed if the device is not yet affiliated with an account, and will ask for a UMaine email address
  - A verification email will be sent, the log in page will remain static until verification is confirmed, whereupon it will redirect to the homepage
- Homepage
  - Our homepage will serve as the central hub and primary page for all users
  - The homepage will display active foodshares
  - The homepage will display options for foodshare creation
  - The homepage will display a settings option
  - The homepage will display a filter option
- Foodshare
  - Each foodshare will have its own viewable page which can be accessed from the homepage
  - Each foodshare will display location
  - Each foodshare will display images (if provided by host)
  - Each foodshare will display allergens
  - Each foodshare will display types of food available
  - Each foodshare will display start time and end time
- Foodshare creation
  - The foodshare creation option will be accessed through the homepage
  - The foodshare creation page will contain fields for location, images, allergens, types of food, and start/end times
  - The foodshare creation page will display a button to end foodshare, which will remove foodshare from homepage
  - The foodshare creation page will display a two question survey upon completion (estimated total attendees, estimated percentage of food taken)
- Settings
  - The settings page will be a drop down display accessed from the homepage
  - The settings page will display a log out option
  - The settings page will display a contact option

- Log out
  - The logout button can be accessed from settings
  - When pressed a confirmation message will be displayed, which will then redirect to log in page

- Contact
  - Contact page can be accessed through setting dropdown
  - Contact page will contain a field with which any queries or issues can be reported and sent to the relevant contacts.

3. User Interface Walkthrough

This section provides a comprehensive walkthrough of Black Bear Foodshare's user interface, guiding readers through the structure and flow of the system's screens.

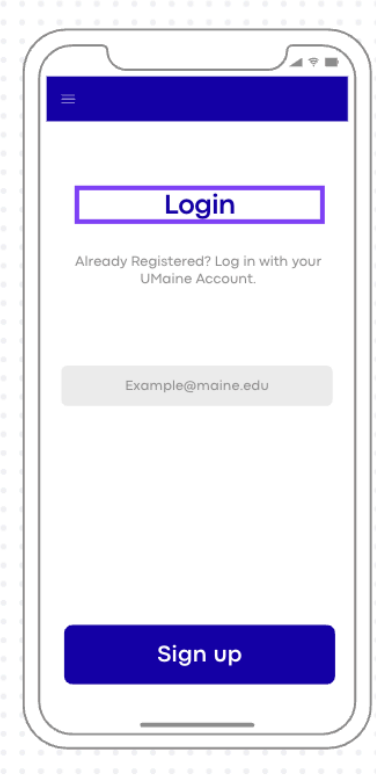


Fig.1

Fig. 2

Fig. 3

Fig. 4

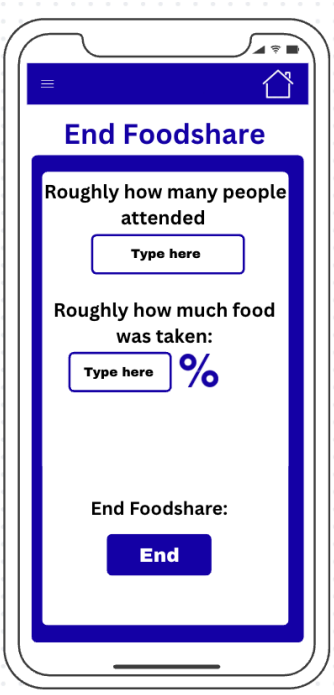
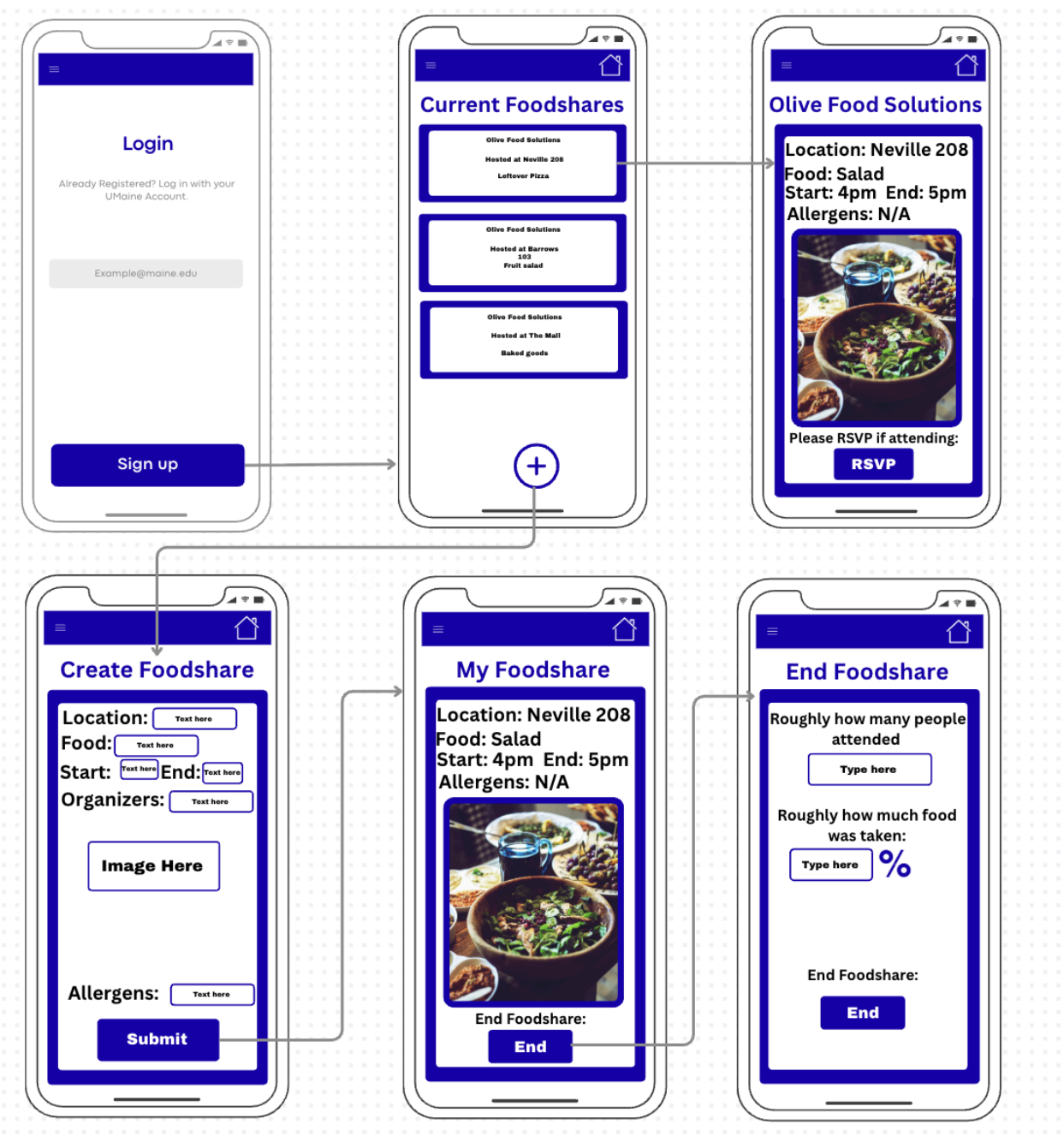


Fig. 5

Fig. 6

Walkthrough Diagram:



Notification Example:

4. Data Validation

This section outlines the data validation standard that governs all user-entered information within the Black Bear Foodshare system. It provides a detailed description of each data item, including its type, limits, and required formats. Ensuring that inputs are consistent and accurate.

Data Item	Data Type	Limits	Allowable Format(s)
Login Email (Fig. 1)	string	512 characters	Email address
Images (Fig. 4)	image	Size less than 10MB	PNG, JPEG, HEIC
Location (Fig. 4)	string	512 characters	Address
Food (Fig. 4)	list of strings	25 elements, of no more than 50 characters each	text
Allergens (Fig. 4)	list of strings	25 elements, of no more than 50 characters each	text
Start Time (Fig. 4)	time	Cannot be before current time	Valid time in the format of hh:mm
End Time (Fig. 4)	time	Must be after Start Time	Valid time in the format of hh:mm
Organizers (Fig. 4)	string	512 characters	text
People Attended (Fig. 5)	int	64 bit integer limit	Integer
Food Taken Percent (Fig. 5)	double	64 bit float limit	Decimal number

Appendix A – Agreement Between Customer and Contractor

The customer and team agree that the document represents a finalized version that meets all agreed upon criteria and requirements. Both parties have thoroughly reviewed the document and all of its contents and agree that the information and structure meet the standards of the requirements. Any feedback or revisions have been addressed and remedied. The document is considered complete and ready for use.

If changes to the User Interface Design Document are required, the team will begin by preparing a draft of the document with the changes. After the draft has been prepared, each team member will review the draft and note any problem with it they have. Once all the problems have been addressed, the team will review the document once more and sign off on it, to show that they are satisfied with the state of the document. Once that has been completed, we will submit the draft to the client for review and approval.

Wesley Dumas
Signature: *Wesley Dumas* Date: 12/3/25

Corey Kaulenas
Signature: *Corey Kaulenas* Date: 12/3/25

Makai Moody-Broen
Signature: *Makai Moody-Broen* Date: 11/24/25

Denis Sima
Signature: *Denis Sima* Date: 12/3/25

Jakob Sholler
Signature: *Jakob Sholler* Date 12/3/25:

Dr. Scott Marzilli
Signature:  Date: 12/3/25
Comments:

Appendix B – Team Review Sign-off

All team members have thoroughly reviewed this document and reached full agreement on all of its content. No major concerns have been raised, and any minor concerns or clarifications raised by individuals are noted in the comments below their signature. Additionally, all members of the team have agreed upon the formatting and presentation of this document with no major complaints.

Wesley Dumas
Signature: *Wesley Dumas* Date: 12/3/25
Comments:

Corey Kaulenas
Signature: *Corey Kaulenas* Date: 12/3/25
Comments:

Makai Moody-Broen
Signature: *Makai Moody-Broen* Date: 11/24/25
Comments:

Denis Sima
Signature: *Denis Sima* Date: 12/3/25
Comments:

Jakob Sholler
Signature: *Jakob Sholler* Date:12/3/25
Comments:

Appendix C – Document Contributions

Sholler Jakob, Contributions:
Introduction(s)
Purpose

Dumas Wesley, Contributions:
Data Validation

Moody-Broen Makai, Contributions:
2 User interface standards
3 User interface walkthrough

Kaulenas Corey, Contributions:
Data Validation
Editing

Sima Denis, Contributions: