

# FoodFinder App and Responsive Website

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# Project overview



## The product:

FoodFinder is a phone app and responsive website that helps people find free and low-cost nutritious food options near their home and helps them find affordable transportation options to access that food.



## Project duration:

August 2021 – October 2021



# Project overview



## The problem:

There are too many people that are hungry and in sub-optimal health because they and their families cannot afford or access nutritious food in their neighborhoods



## The goal:

To enable people with limited income or living in food deserts to find nearby sources of nutritious food, and help them find affordable ways to get transportation or delivery so they can obtain nutritious food

# Project overview



## My role:

UX designer and UX researcher



## Responsibilities:

User research, market research, wireframing, mockups, prototyping, user testing and analysis

# Understanding the user

- User research
- Personas
- Problem statements
- Competitive audit
- Ideation

# User research: summary



I performed a Moderated Usability Study with 5 users each in 2 rounds of user testing. In the 1<sup>st</sup> round of testing, users were asked to interact with a low-fidelity prototype presented on a smartphone and were verbally asked a series of prompts and prompt follow-up questions. In the 2<sup>nd</sup> round, users were asked to perform additional tasks with a high-fidelity prototype.

Assumptions going into user testing were that the app would be helpful people living in a food desert or needing financial assistance with feeding themselves and their families and that the app was easily to navigate. Overall, the testers confirmed these assumptions and were pleased with the app capabilities. However, there were some issues raised when it came to following transportation route options. Based upon this feedback, these issues were corrected with multiple iterations of design updates.

# Persona 1: Melissa

## Problem statement:

Melissa is a struggling mother who needs to be able to feed herself and her kids because they sometimes go to bed hungry and she wants them to be healthy with a bright future.



Melissa

**Age:** 35

**Education:** High School

**Hometown:** Norfolk, VA

**Family:** Single, 2 kids

**Occupation:** Part-time admin assistant

*"I can't afford to feed my kids well."*

### Goals

- To get some financial assistance so her kids can eat and she can still pay rent
- To afford nutritious food for herself and her kids
- To find help somewhere nearby

### Frustrations

- There are no low-income food options nearby
- She only has a part-time income, so it's hard to afford nutritious food for her family
- She's trying to find a full-time job that pays better, but she doesn't have a degree or advanced skills. It's also difficult to balance her job with childcare
- Her kids sometimes go to bed hungry and she feels guilty

Melissa works only part-time hours and wishes she could find a better paying full-time job that works around her childcare needs. However, she doesn't have advanced job skills and can't afford school to improve her qualifications. She would like some help with accessing food assistance, such as food pantries or even soup kitchens so that her kids can eat. She worries about their future and is upset when her kids have to go to bed hungry. She doesn't know where to turn for help, because she doesn't see any options in her neighborhood.

## Persona 2: Erek

### Problem statement:

Erek is a retiree with a low fixed income who needs to feed himself and his wife nutritious food because he no longer wants junk food and wants to maintain their health.



Erek

**Age:** 67  
**Education:** GED  
**Hometown:** Portsmouth, VA  
**Family:** Wife, 2 grown kids  
**Occupation:** Retired bus driver

*"It's hard to afford real food and to get transportation there."*

### Goals

- To access real food, such as fruits, vegetables, grains, beans, fish, etc.
- To improve his and his wife's health
- To afford nutritious food
- To get transportation to food options

### Frustrations

- There are no grocery stores in walking distance
- He can no longer drive, so it's hard to get to a store with nutritious food
- He and his wife are on a fixed limited income, so it's hard to afford nutritious food
- He and his wife have health issues, which become worse because they only have access to junk food

Although Erek used to drive for a living, he is no longer able to because his vision is declining and the old car he has is no longer reliable. He and his wife have health issues, but it's hard to access healthy food in the low-income 'food desert' neighborhood where he lives. They live on social security, so don't have much money to spend on food. They usually go to the convenience store around the corner to buy inexpensive junk food.



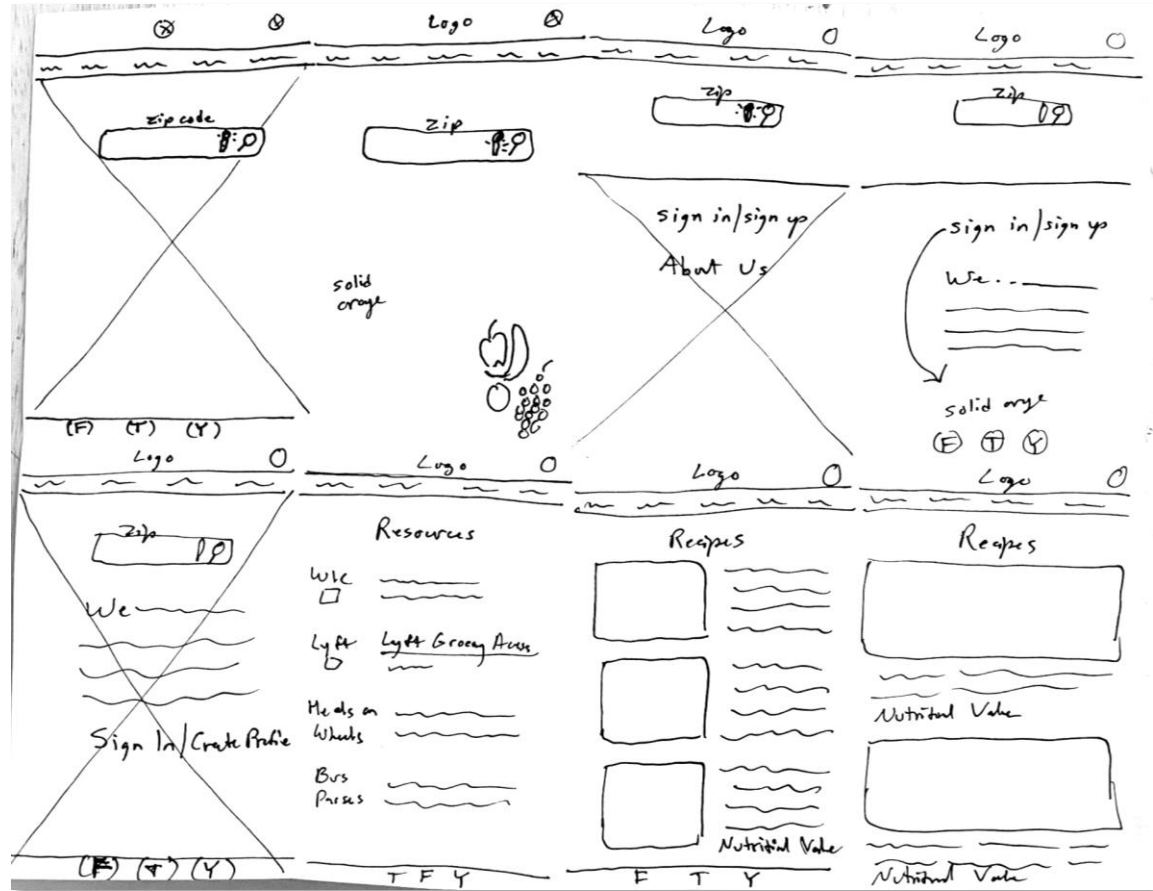
# Competitive audit

Conducted an analysis of other websites offering similar services and functionality to determine their strengths and weaknesses, and gaps in the market.

|                        | Price (\$ - \$\$\$) | Website (URL)  | Business size (small, medium, large) | Target audience   | Unique value proposition   | Desktop website experience  | App or mobile website experience  | Features  | Accessibility  | User flow   |
|------------------------|---------------------|--|--------------------------------------|---|--|---|---|---|--|---|
| Feeding America        | Free                | <a href="http://www.feedingamerica.org">www.feedingamerica.org</a>         | Medium                               | Americans who have trouble accessing and affording real food        | US's largest domestic hunger-relief organization, ensures food safety and security   | <b>Very Good</b><br>+ Clean UI and navigation, nicely branded, and visual design<br>- The First Aid Food Bank search could be above the fold, since that's the most important point of the organization   | <b>Very Good</b><br>+ Clean UI and navigation, nicely branded,<br>- The Need Help page has maybe too much text  | <b>Very Good</b><br>+ Find food banks by zip, blog, explains what the org does, offers ways to volunteer and donate<br>- Listings (at least in my area) seemed limited. Only showed 1 item  | <b>Very Good</b><br>+ Good phone navigation, easy to access search, clear icons. Provides information in Spanish offer audio options<br>- Could provide more audio options   | <b>Good</b><br>+ Clear user flow from hamburger menu homepage options<br>- The "View Feeding America's full Member Bank Network" link is not working on mobile  |
| Need Help Paying Bills | Free                | <a href="http://www.needhelpayingbills.com">www.needhelpayingbills.com</a> | Small                                | Americans who need financial assistance to pay their bills          | Provides a one-stop shop for various options for low-income people to access financial assistance, through government programs, charities, churches, food pantries, etc. | <b>Needs Work</b><br>+ Provides helpful options with contact information, good mission, can drill down to county level<br>- Doesn't detect current location or zip code, doesn't provide transportation options. Outdated look and feel, lots of ads  | <b>Needs Work</b><br>+ Provides helpful options with contact information, good mission, can drill down to county level<br>- Doesn't detect current location or zip code, doesn't provide transportation options. Outdated look and feel, lots of ads      | <b>Good</b><br>+ Provides contact information and links to find out more information under various categories<br>- So many options without organization can be overwhelming   | <b>Good</b><br>+ Simple content (text and links) mean it will be readable by screen readers<br>- Too much text on page may make it difficult for those with cognitive or vision disabilities. Long pages require scrolling. A lot of ads which users may accidentally click on or believe is part of the content | <b>Good</b><br>+ straightforward. Use hamburger menu for pantry page, then use links for state/country<br>- Long pages require scrolling. Will still phone and call to get hours or more info                                   |
| Rome2Rio               | Free                | <a href="http://www.rome2rio.com">www.rome2rio.com</a>                     | Medium                               | People who need to travel or commute, and get public transportation | Provides real-time transport options from anywhere to anywhere, includes routes, schedules, and costs  | <b>Outstanding</b><br>+ Provides a lot more options and functionality than the mobile/app experience. More heavily branded with more description text than the mobile/app experience.<br>- Possibly provides too many options that it's harder to find the functionality you're looking for | <b>Outstanding</b><br>+ clearly lays out options and routes, color-coded, provides fare prices<br>- Complicated routes might be hard to follow  | <b>Outstanding</b><br>+ Provides helpful information for travelers while on-the-go<br>- Elaborate routes might be hard to follow  | <b>Very Good</b><br>+ 6 languages, various currencies, and distance measurements for various countries, good navigation and icons, large fields, prominent call-to-action, hotel images, map, good text hierarchy on the hotels page<br>- No microphone or audio options   | <b>Very Good</b><br>+ Gets right to the point with the search options, then shows details<br>- The map isn't very interactive, other than in/out  |
| Food Bank Online Org   | Free                | <a href="http://www.foodbankonline.org">www.foodbankonline.org</a>         | Small                                | Southeastern Virginians who need access to low-cost or free food    | Provides food bank/food pantry information to those specifically in Southeastern Virginia. Provides addresses and hours for each option.                                 | <b>RATING</b> + Successes- Drawbacks  | <b>Outstanding</b><br>+ clearly lists options, with addresses, phone numbers, and dates/hours. Nice graphics that get across the point<br>- Doesn't provide maps, directions, transportation. Doesn't provide other food options, such as farmers markets | <b>Very Good</b><br>+ Provides helpful information (addresses, name, dates/hours) for community members seeking food pantries. Provides map option. Printer friendly<br>- Doesn't automatically detect zip code or provide means of getting to the location. Lack of images in the database. Map and List tabs are small. Zip field could be bigger for those with vision or dexterity issues | <b>Good</b><br>+ Not overloaded with text or information. Clear navigation<br>- Doesn't automatically detect zip code or provide means of getting to the location. Lack of images in the database. Map and List tabs are small. Zip field could be bigger for those with vision or dexterity issues              | <b>Very Good</b><br>+ Clear navigation leads user to the content quickly. The Find Help page gets users they need to go very quickly<br>- The footer is very long and the About page is very long, requiring a lot of scrolling |

# Ideation

With pen and paper, I brainstormed interfaces that would help users get started searching for nearby food sources and finding relevant information on their phones





# Digital wireframes

Users needed a simple way to determine what food offerings are near their own home, so I kept the interface straightforward with an emphasis on the zip search field, which can be searched by typing or voice. Results can be sorted and filtered according to their own needs. Users are also able to save their settings (such as location, transportation preferences, and user category) to make reusing the site easier.

Icons help users easily identify features they're looking for (such as FREE food or delivery offerings)

Tabs with icons provide filters so users can easily search for the category they're interested in. For example, Erek can filter by the 60+ category since he's a retiree.



User settings and preferences can be saved in a profile

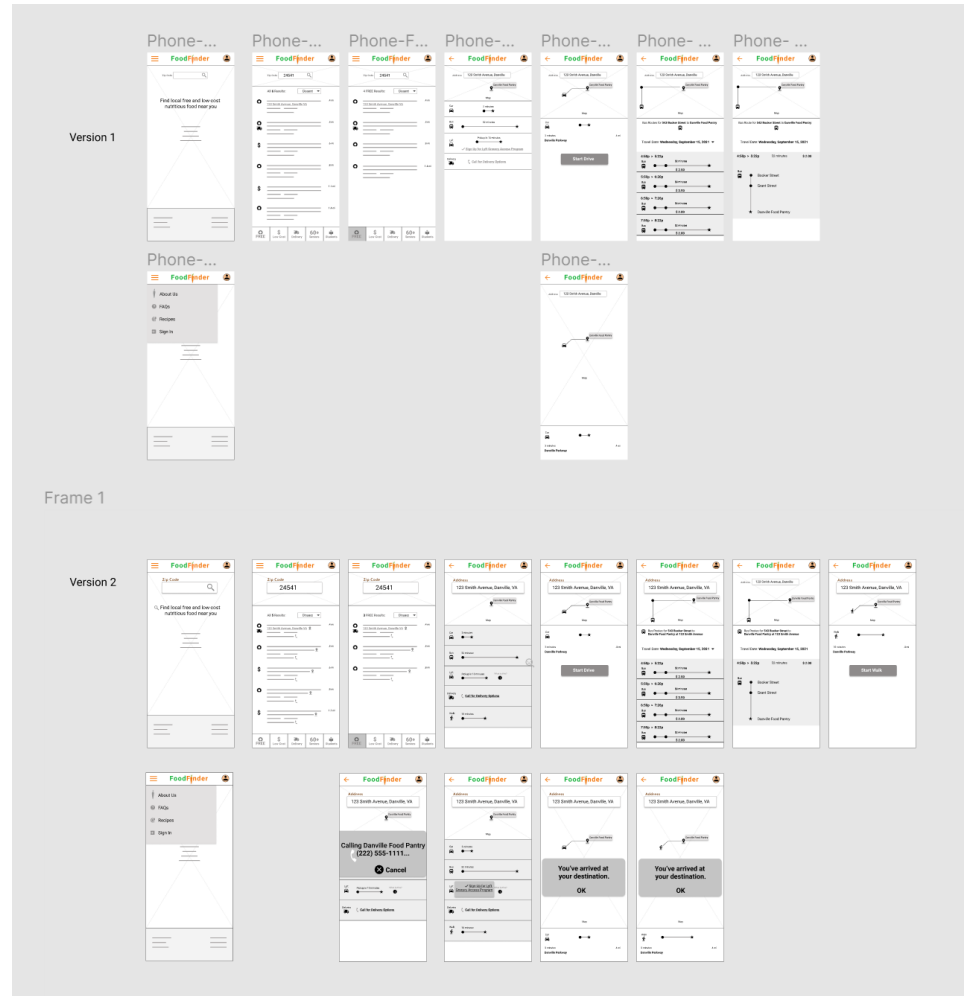
Provides zip search front and center, as it's the main user goal

Automatically sorts by closest locations first and indicates distance away

# Low-fidelity prototype

I explored the various screens needed for the app for the main user flows and how these would connect to each other for the user journey.

[Link to Low-Fidelity App Prototype](#)



# Usability study: parameters



## Study type:

Moderated usability study



## Location:

Virginia



## Participants:

5 participants



## Length:

20 minutes per session

# Usability study: findings

Insert a one to two sentence introduction to the findings shared below.

1

**Some users wanted a walking option**

1 out of 5 participants would likely walk to a nearby food source, so wanted to have a walking directions available as an option

2

**Cognitive or vision issues, making it hard to understand transportation options**

2 out of 5 participants had cognitive/vision issues which made it difficult to understand the various transportation routes presented.

3

**Most users could easily perform zip code search**

4 out of 5 users found it easy to do a search by zip code, quickly finding relevant search results

# Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

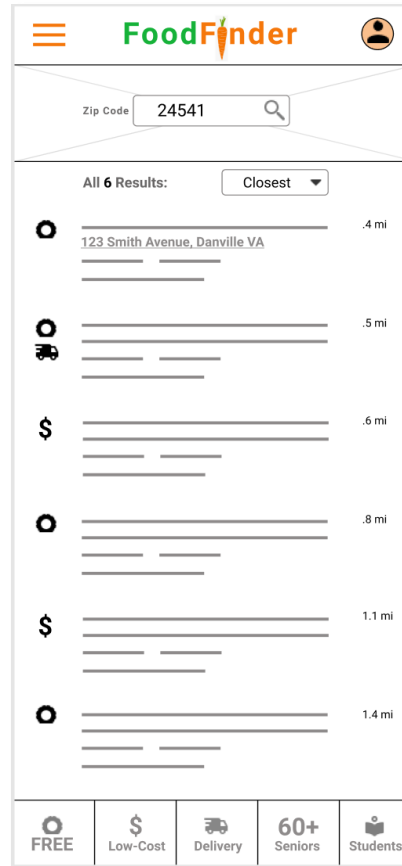


# Mockups

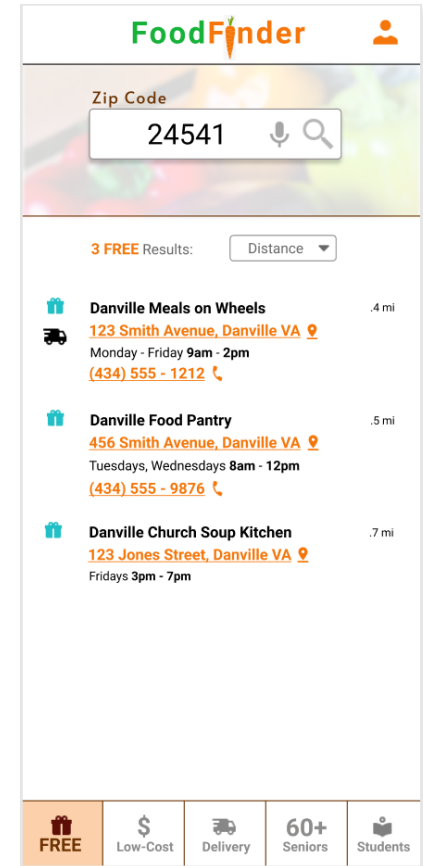
After testing indicated that users with cognitive/vision impairments may have difficulties, I updated the design to aid understanding by:

- Including the option of automatically detecting user's zip code based upon GPS
- Added voice search option to improve accessibility
- Increasing size of the search field and zip code text
- Increasing margins to improve readability and allow room for touch actions
- Adding location and phone icons to aid understanding
- Using color to help understanding and visibility

## Before usability studies



## After usability studies

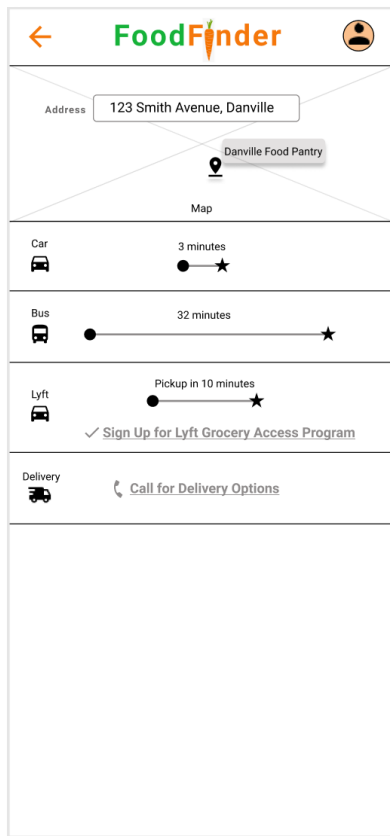


# Mockups

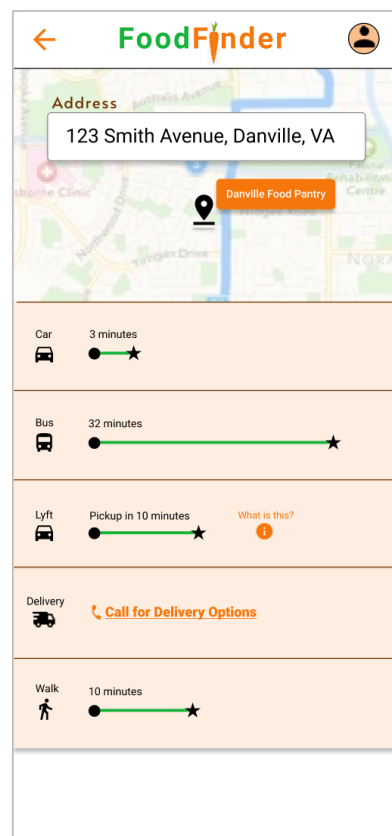
After testing indicated that users with cognitive/vision impairments may have difficulties, I updated the design to aid understanding by:

- Adding a walking route option
- Increasing size of search field and text
- Cleaning up the route information to aid readability
- Increasing spacing and margins to allow room for touch actions
- Using color to aid understanding

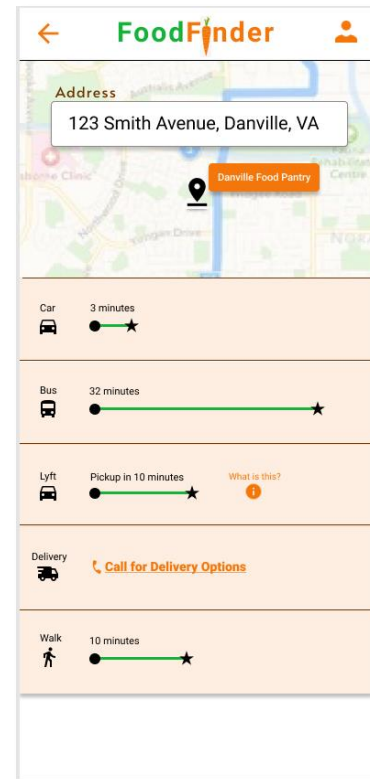
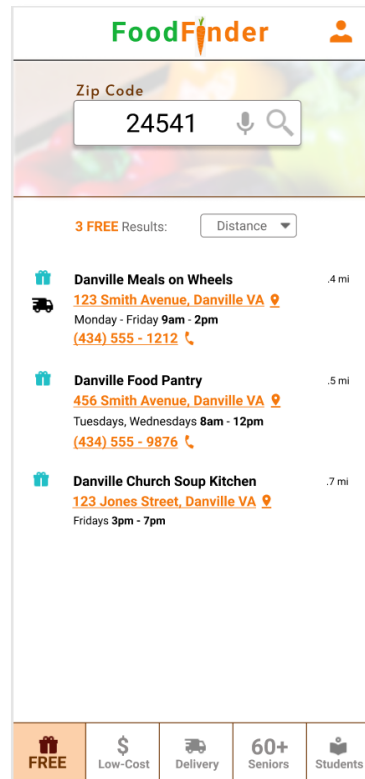
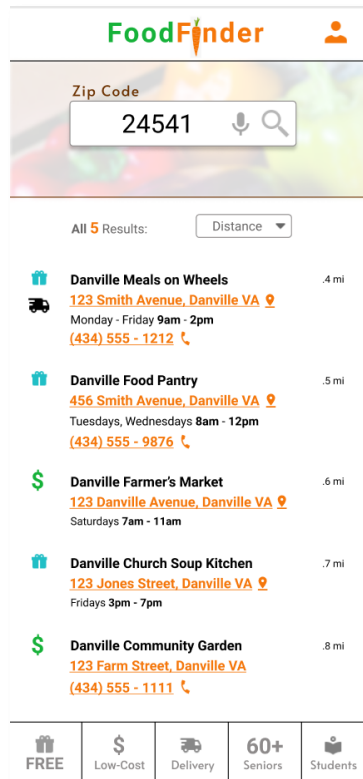
## Before usability studies




## After usability studies



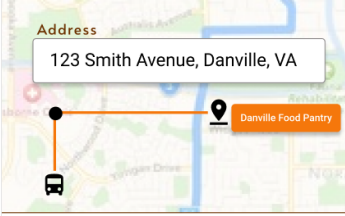
# Mockups



# Mockups

← FoodFinder 

Address  
123 Smith Avenue, Danville, VA



Bus Routes for 543 Booker Street to Danville Food Pantry at 123 Smith Avenue


Travel Date: Wednesday, September 15, 2021 ▾

4:50p > 5:22p  
Bus 32 minutes \$ 2.00

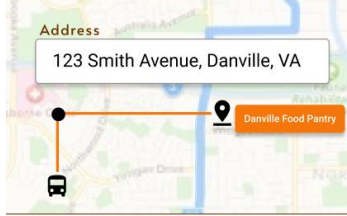
5:50p > 6:20p  
Bus 32 minutes \$ 2.00

6:50p > 7:26p  
Bus 32 minutes \$ 2.00

7:50p > 8:22p  
Bus 32 minutes \$ 2.00

← FoodFinder 

Address  
123 Smith Avenue, Danville, VA





Bus Routes for 543 Booker Street to Danville Food Pantry at 123 Smith Avenue

Travel Date: Wednesday, September 15, 2021


4:50p > 5:22p 32 minutes \$ 2.00

Bus

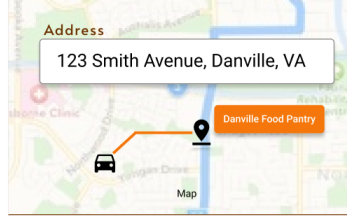
- Booker Street
- Grant Street
- Danville Food Pantry


Print Share

← FoodFinder 

Address  
123 Smith Avenue, Danville, VA





Map

Car 

3 minutes 4 mi


Danville Parkway




Car 

3 minutes 4 mi

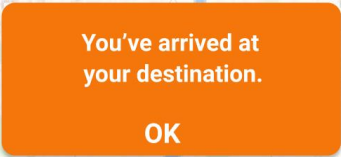
Danville Parkway


← FoodFinder 

Address  
123 Smith Avenue, Danville, VA



Danville Food Pantry

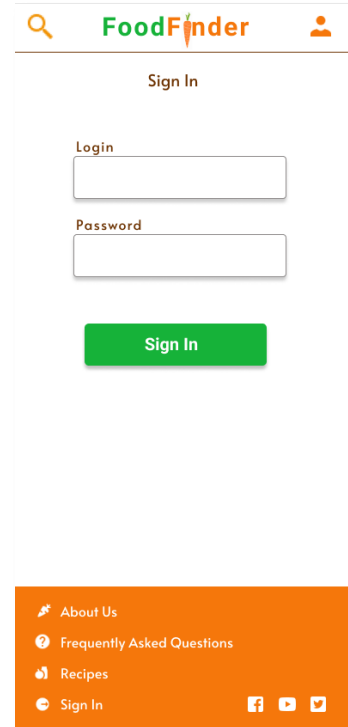
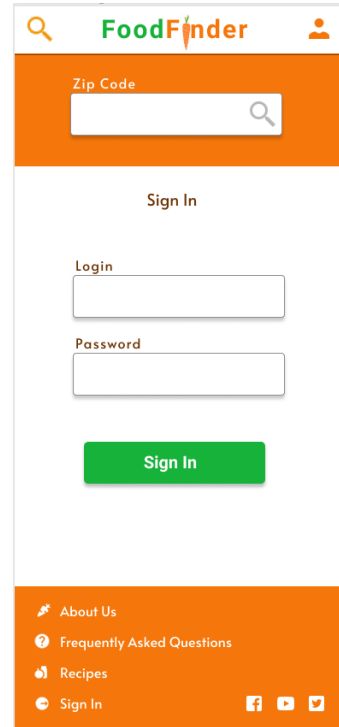
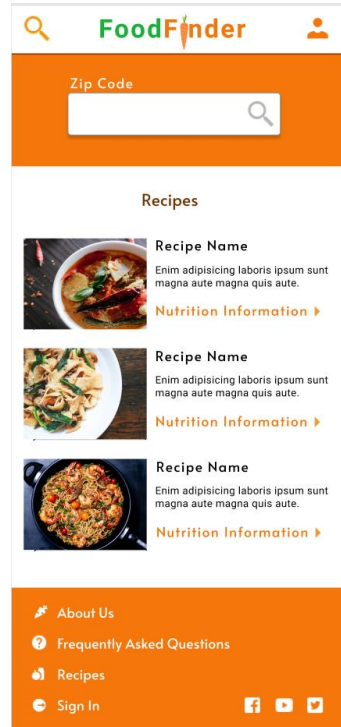
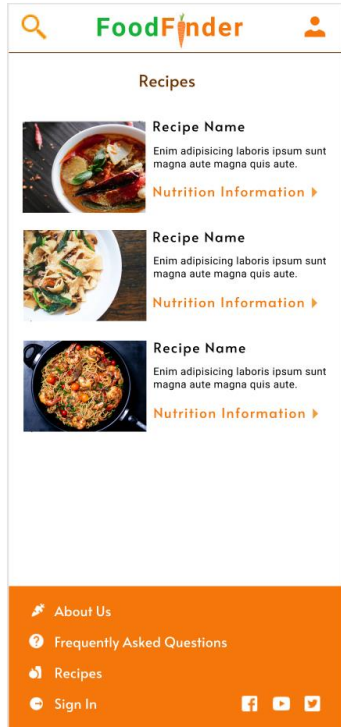


Car 

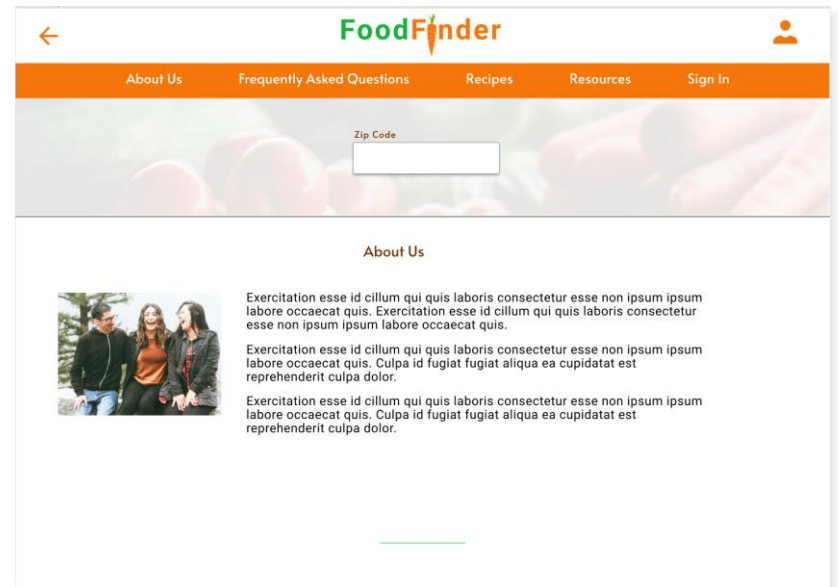
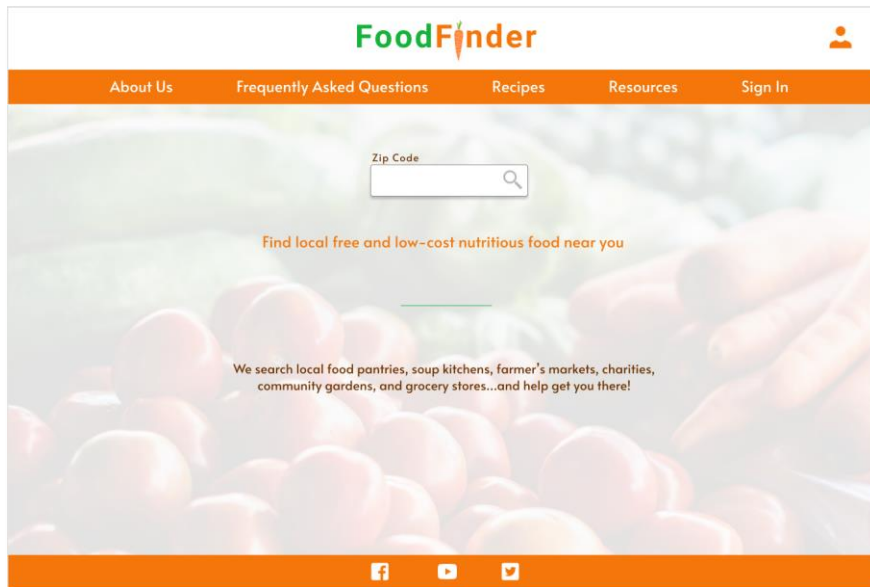
3 minutes 4 mi

Danville Parkway

# Mockups



# Mockups





# Design System

Added visual components and assets to a sticker sheet design system, to improve consistency and branding and to help designers and developers

Logo **FoodFinder**



Colors #F5770B #F5770B 20% #6D3302 #16B239 #16B239 25% #000000 #8E8B8B

Icons  

Fields



Buttons

Fonts **H1: Alata 22 (Auto line spacing)** **H2: Alata 19 (26 line spacing)**  
**Linked Text: Roboto 15 Underlined (Auto line spacing)** **Food Location Text: Roboto 15 (Auto line spacing)**  
Distance Text: Roboto 15 (Auto line spacing)

Dividers  1 pt green  1 pt dark brown

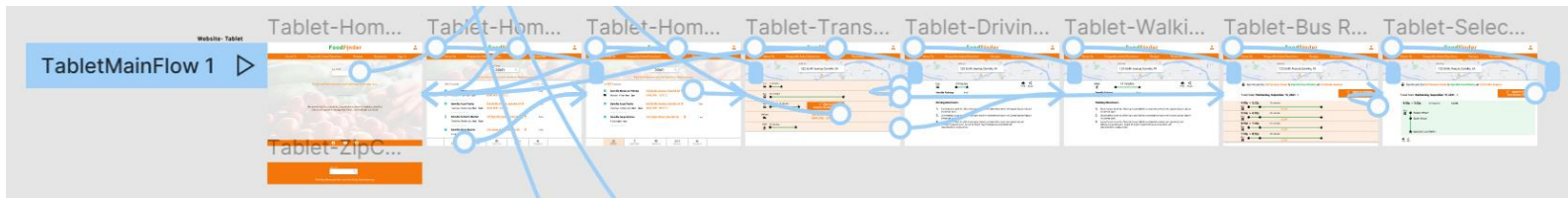
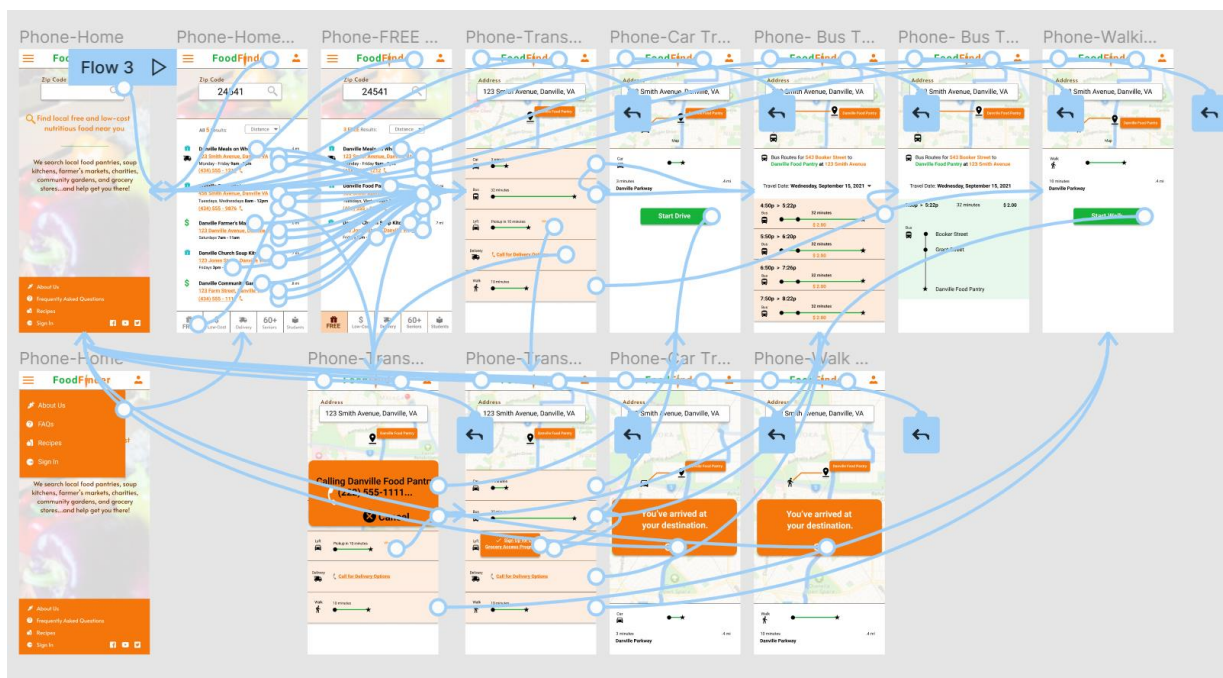
Display Messages 

Calling Danville Food Pantry  
(222) 555-1111...

# High-fidelity prototypes

I created high-fidelity prototypes for various screen sizes ([phone app](#), [mobile site](#), [tablet](#), [desktop](#))





# Accessibility considerations

1

Includes option for automatically detecting zip code to ease use for those with cognitive/vision disabilities

2

Includes voice search option for zip code, for those with vision disabilities

3

Provides various transportation options for those who cannot drive, but can walk or use public transportation

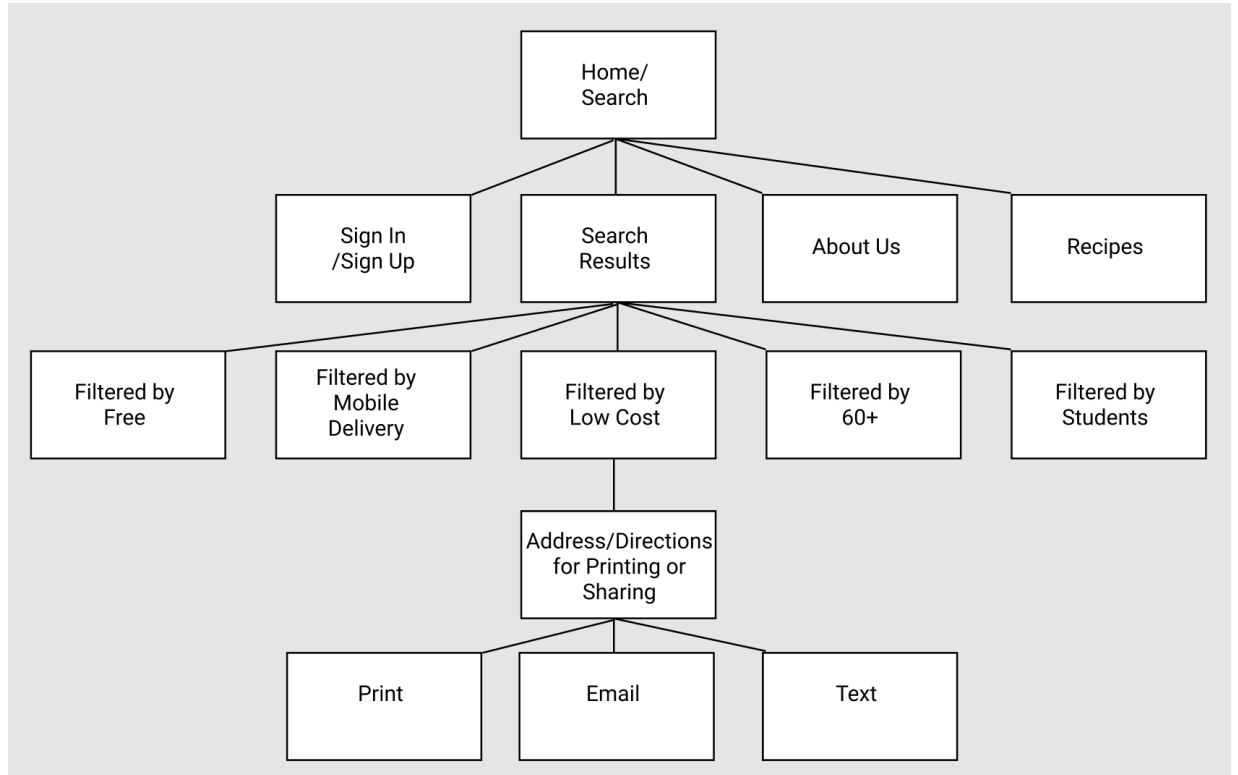
# Responsive Design

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- Information architecture
- Responsive design

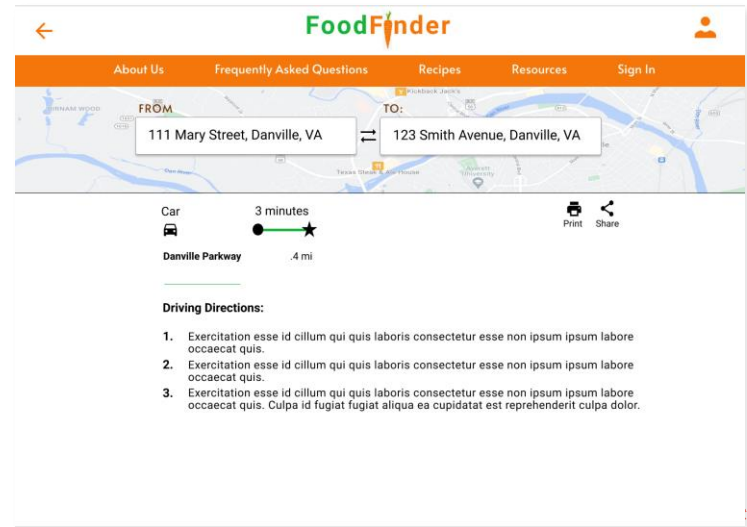
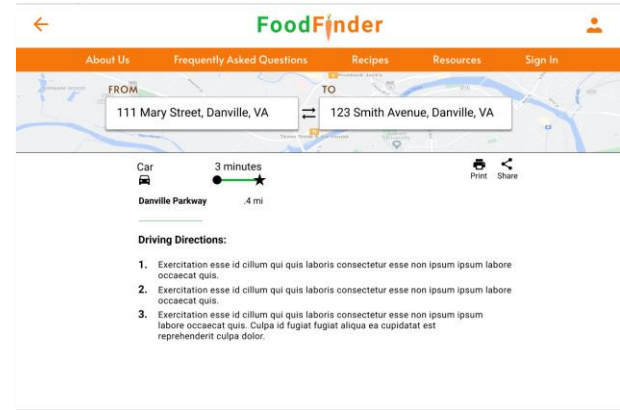
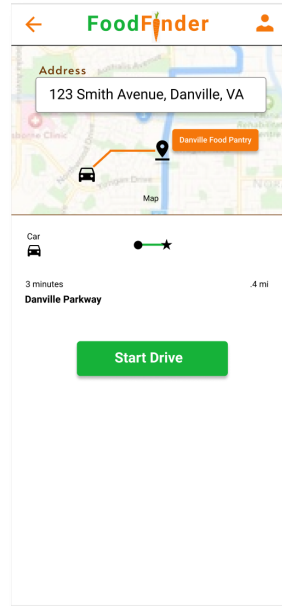
# Sitemap

I studied the user journeys and related tasks of our personas to determine the flow of the app, and the screens necessary for users to proceed through that flow



# Responsive designs

I designed the interfaces for multiple device sizes, accounting for screen size and device functionality (for example, most desktop computers would not have GPS but may have access to printers)



# Going forward

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- Takeaways
- Next steps

# Takeaways



## Impact:

This app and website could help people who need financial assistance for food to find local resources that they did not know about. It could also help those who are transportation-challenged to find affordable ways of getting to these food resources or setting up delivery. As one tester said “This site would really help out my family when we are hungry and need help.”



## What I learned:

I learned that we need to design for a variety of situations and end-user capabilities. People have different device sizes, with varying ranges of capabilities. People also vary in technical, cognitive, and visual aptitude and may present other disabilities (such as no longer being able to drive). We need to design to be inclusive of these diverse capabilities.

# Next steps

1

Next, I would continue to build out all the other user flows, such as providing detailed financial assistance resources, building a recipe database, and designing the settings screen/login flow.

2

I would add all page designs to all device sizes, keeping in mind screen limitations and the strengths and weaknesses of each device type.

3

I would then conduct further usability testing to make sure all pages, including the resources, recipe, and login sections, are user-friendly and accessible.

# Let's connect!



Please contact me if you would like to review additional design work.

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[www.JenniferLyckeUX.com](http://www.JenniferLyckeUX.com)



Thank You !