HCI 440
Team 1, DJ FLAVOR
Team Project 2, Conceptual Model
4 October 2011

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Executive Summary

Foobie is an aide to create the most convenient and cost-effective meals, for novice or budget-conscious chefs. By selecting ingredients you wish to use, Foobie suggests recipes, creates a shopping list, provides cost estimates, and, based on your current or desired location, suggests grocery stores.

Since the major feature that differentiates us from our competition is the ability to give a cost estimate of the ingredients for the recipe, considerations for the “estimated cost” feature needed to be given priority, particularly subtracting the cost of items you already have so that the estimate only includes the ingredients you need to purchase.

Our conceptual model also took into account the use cases and the other needs of the proposed users. Following is our list of usability goals and user scenarios, which helped us focus on the primary functionalities for the app.

Usability Goals

1. User will be able to easily find a recipe based from the ingredients entered into the search field.
2. User will be able to easily estimate the cost of each ingredient used to make the recipe.
3. User will be able to easily filter recipes by ingredients, cost, dietary needs, cooking time estimates.
4. An easily retrievable shopping list will be created by the app which provides ease of legibility and functionality (checking off items) while shopping for ingredients.
5. User will be able to easily remove items from the shopping list and cost estimate.
6. User will be able to locate stores on a map while viewing the shopping list.

Use Cases

1. Jennifer is an at-home parent who also works part-time for her employer from her house. Her youngest child is now in school and she is able to do some more creative cooking than previously. She knows the Dominick’s down the street, but is curious where else she might find the kind of produce she wants to use. She uses Foobie to locate a grocer’s that is a couple miles further away, but that has more exotic fruits and vegetables. In the store, she uses Foobie to look up recipes for these unfamiliar

ingredients.

2. Jared is at work and needs to find a place to buy all the ingredients for dinner on the way home. He has previously used the Foobie app to find a recipe, create a shopping list, and store the shopping list. He opens the Foobie app, accesses the shopping list alongside the store locator and finds the nearest store that has all the ingredients needed as well as the estimated cost of those ingredients. He goes to the most convenient store location on the way home and uses the shopping list, marking off the ingredients while shopping.

3. Jacob is a college student who has a really important date tonight. He's promised his new girlfriend that he would cook her a delicious dinner that she has never had before. Unfortunately, Jacob is not very savvy in the kitchen and needs a quick and easy way to learn a new recipe and cook something up. Jacob uses his iPhone to pull up his Foobie application. He knows his date loves meals where the main ingredient is Turkey so he proceeds to input that as his first ingredient in the app. After being presented with a list of recipes, Jacob sorts them by price and difficulty so that he can whip something up that is affordable for a college student, and is not too difficult to create.

4. Alice is at the local farmer's market buying fresh groceries as she usually does. Today there is a special on dragon fruit, an item Alice has neither purchased nor cooked with. Her mind immediately goes to work wondering what the dragon fruit could be used for. Alice accesses her Foobie app from her iPhone and types in dragon fruit as the first ingredient. She is presented with a list of recipes that include dragon fruit, most of which she had not heard of. She proceeds to purchase the dragon fruit, comfortable that she can now utilize one in a new and exciting recipe.

5. Davis has the day off from work today, and is feeling particularly lazy on a Sunday afternoon. He is starting to get very hungry, but does not know what to make. Since he has been sitting around all day, he does not feel like going out to get something to eat. He looks around his apartment and finds several random ingredients, but does not know what he could use them for together. Instead of creating some mystery meal, he uses his Foobie application on his iPhone. By inputting the ingredients he found in his kitchen, Davis is presented with several meals that he could create using only the things he already has on hand.

6. Sarah is visiting her brother and sister-in-law in Chicago. The grocery stores in Chicago have different names from the ones she uses in D.C., and she's not sure what grocer's name to Google to look for a store location. While her brother is at work, she wants to find someplace to get ingredients to make a meal from the Julia Child cookbook that she and her fiance have been working through. She access Foobie and finds a grocer's close to her brother's apartment.

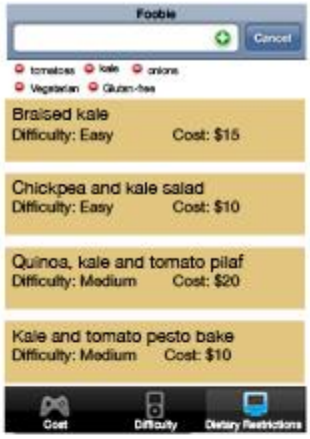
Conceptual Model #1

- Conceptual model #1 takes the user sequentially through the steps that someone might take when looking for a recipe with the intention of going shopping for remaining ingredients. The user can search by recipe or ingredient, or they can easily access and replicate the experience with their favorite recipes. Users can filter based on several options. A shopping list is populated, wherein the user can narrow down the ingredients needed while the app calculates the estimated cost of the shopping trip. The system uses GPS to point the user to grocery stores and markets in their vicinity. Finally, the user can bookmark a recipe as a favorite and access it again and again from the home screen.

Splash Page
User selects searching preference
Tap selection instantly sends user to the next screen

User enters ingredients
Recipes automatically populates with estimated cost and difficulty level
Users can continue to add ingredients, recipes will be filtered
User can delete ingredients

User can choose filtering options
Tapping the filter option pulls up transparent selection screen
Recipes automatically filter when user hits "OK" within filtering section



Filter selections appear below ingredients, just below the search bar

User taps recipe of choice
Recipe appears
User can go back to recipes list, or populate shopping list

User can check off the items that they already have with one tap
Cost estimate automatically changes
User can map recipe

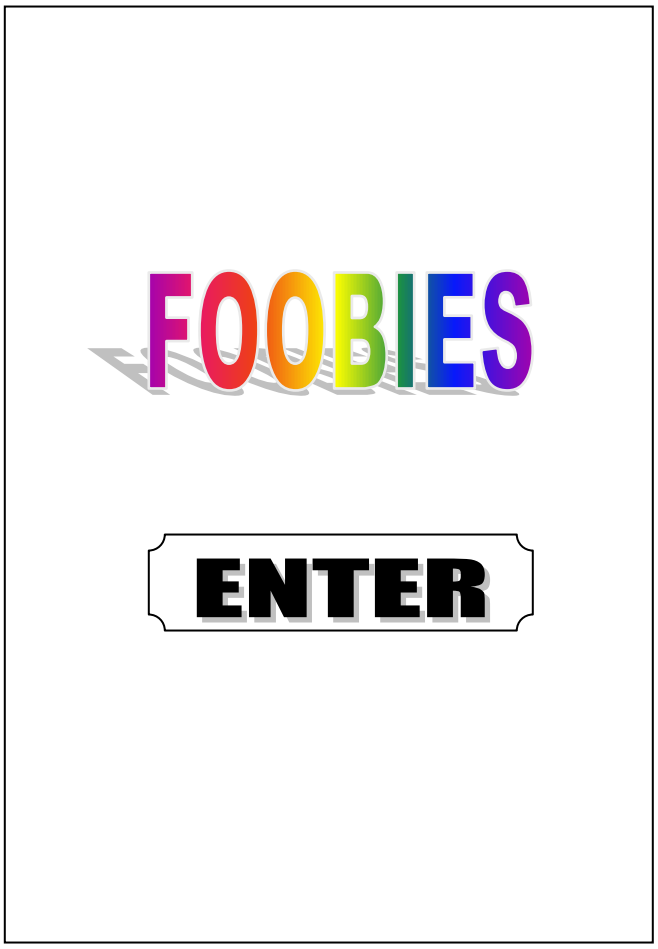
App uses device GPS to locate user and nearby grocery stores
User selects store and gets directions to the store of their choice
User can then return to shopping list and check off items as they shop

Users can also save favorite recipes by selecting the bookmark icon

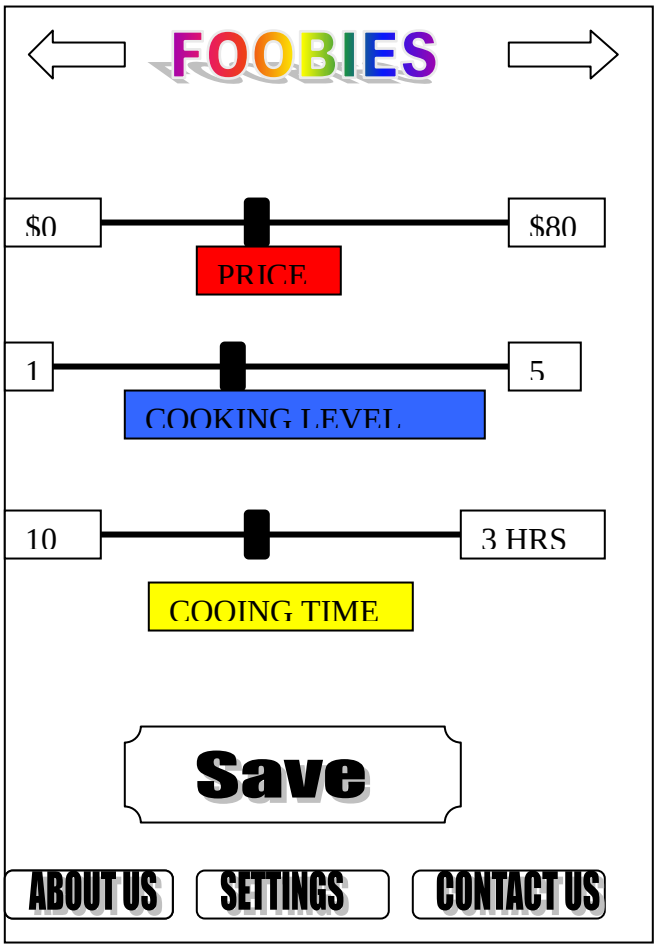
User can browse saved recipes

- Pros
    - Simple, common-sense approach
    - Splash screen affords one tap access to users' desired search
    - User can easily add or remove items when entering ingredients and adding filtering options
    - Consistency in the use of filtering option icons, placement of "back" buttons, etc.
- Cons
    - User might find it difficult to toggle between the map, shopping list and recipe screens
    - Some functionality might require learning curve

Conceptual Model #2



User clicks on the enter button to access the main page.

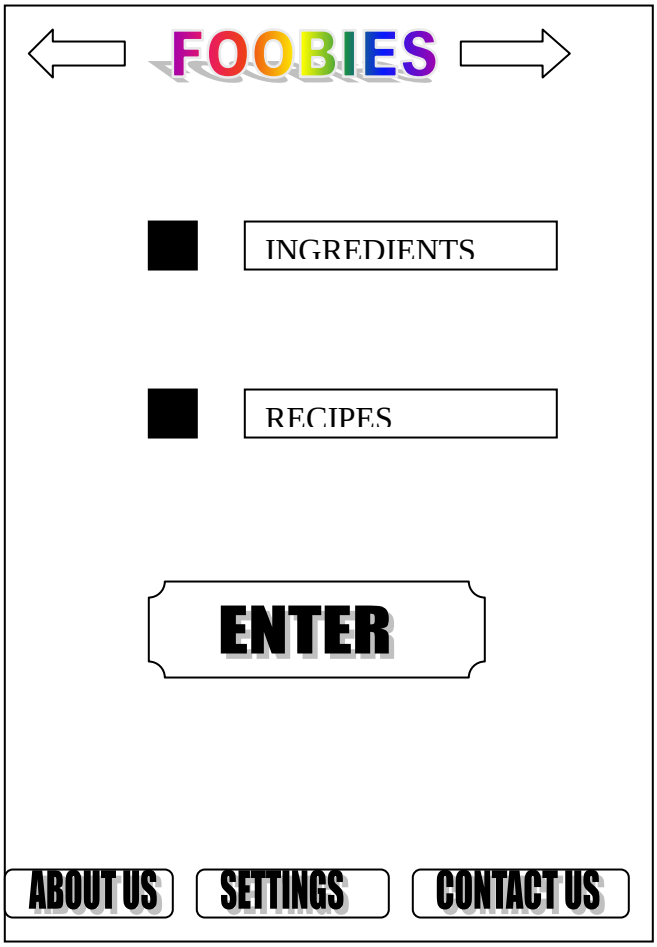


A user can set how he searches for food by using the sliding scale for price, recipe difficulty level and time.

The left side of the scale is the lowest setting and the right side of the scales is the higher setting.

When the setting are set and the user click on the save button. The user is taken to the next screen, the Search Screen.

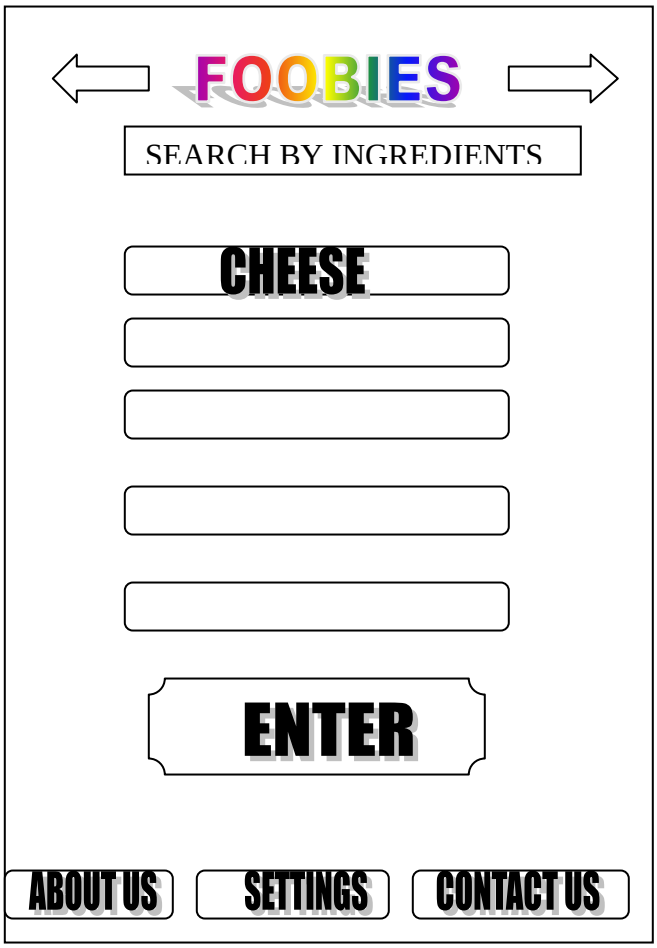
The second setting button is used to filters for food allergies.



After the search settings are set, the user can select how he wants to continue his search for recipes. The user can search by ingredients or by recipes.

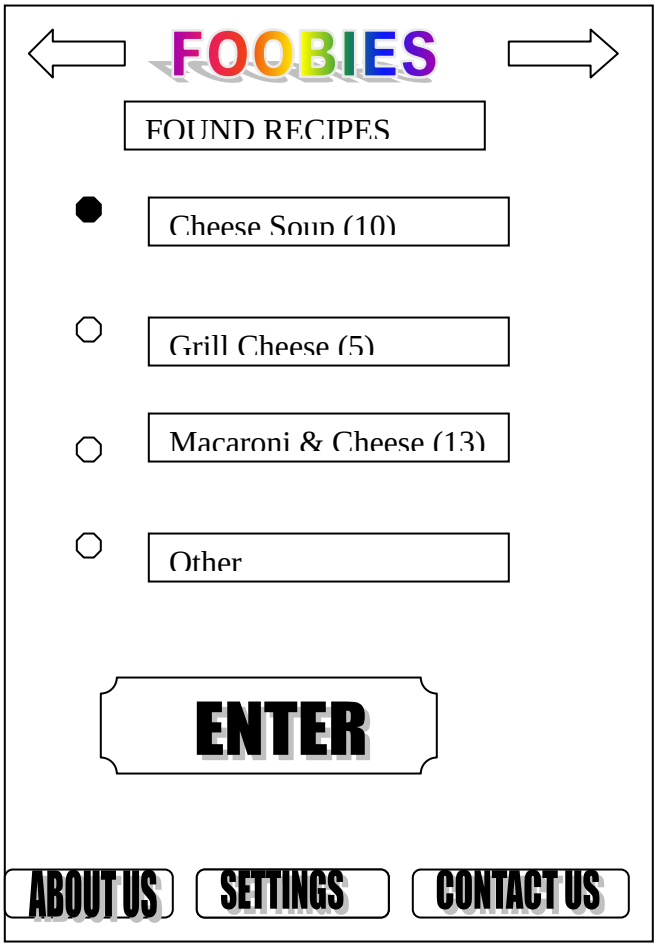
If the user selects the "Ingredients" option, he is taken to the "Search by Ingredients" menu.

If the user selects the "Recipes" option he is taken to the "Recipes Found" screen.

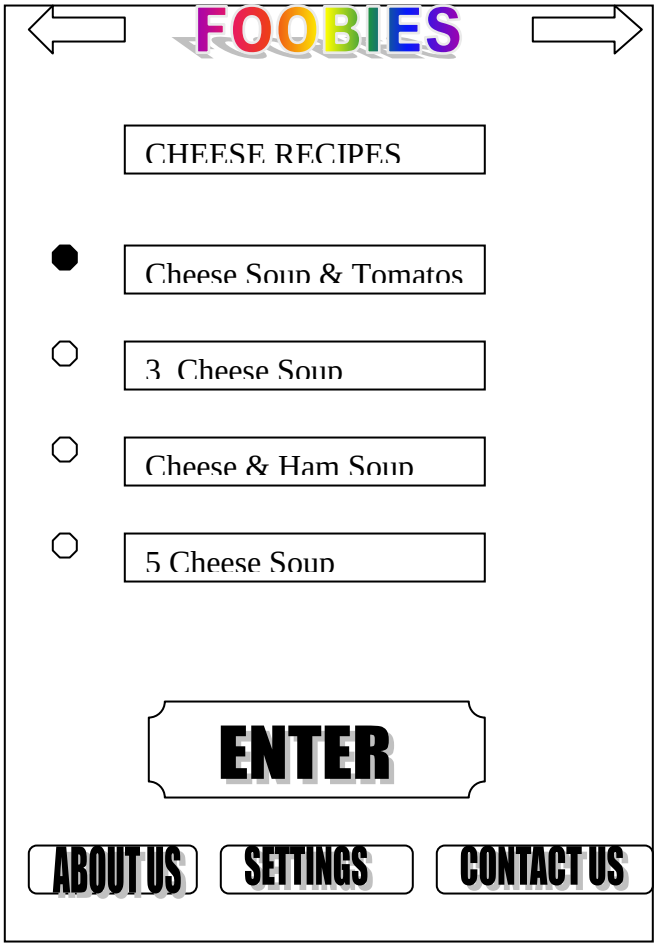


Search by Ingredients-

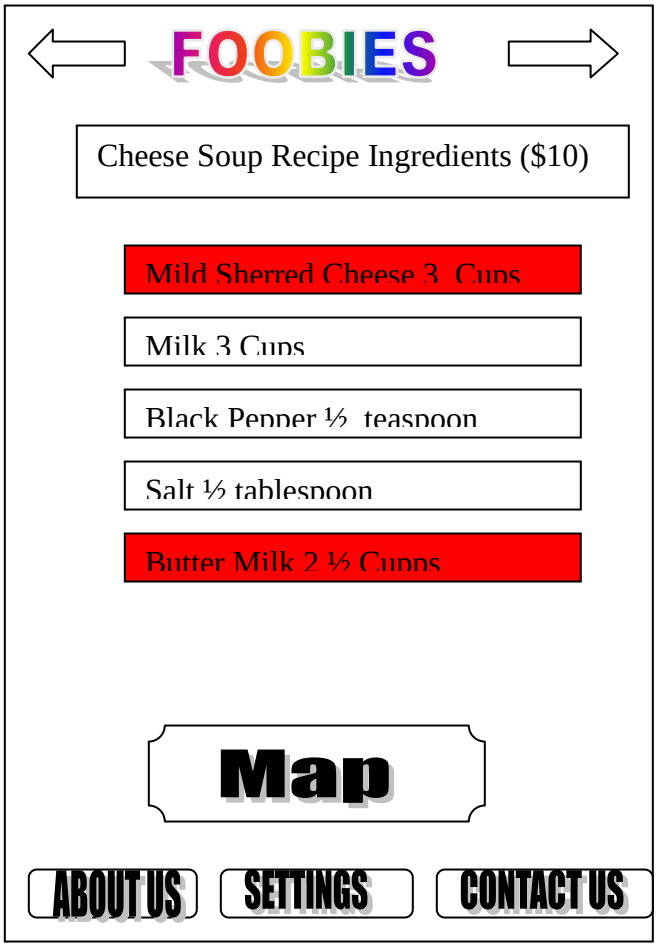
When users search by ingredients they can enter up to five ingredients at a time. After users enter all of their ingredients, they click on the enter button.



This screen will generate a list of possible recipes that can be made with the ingredients or recipes the user has entered. User selects what kind of recipes he or she wants to make.

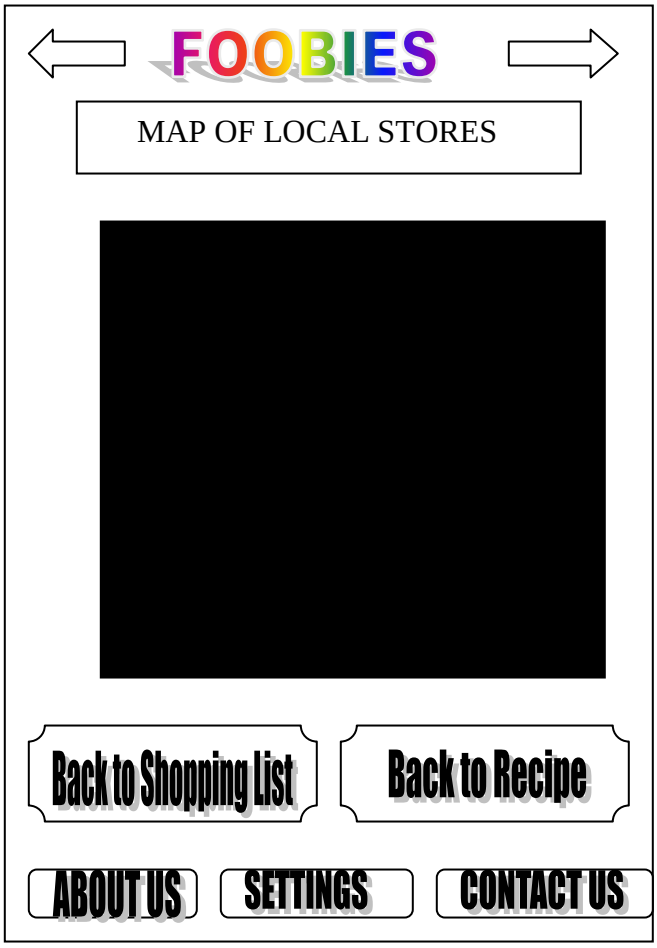


A sub-list of possible recipes will be generated. Then the user selects what kind of recipes he or she wants to make.



A shopping list of ingredients is generated with an estimated price. Items that are not needed are crossed out in red. As the user shop they can cross out items.

User then clicks on the enter button to show a map of the local stores.



A map of the all the local stores is displayed with their addresses and mileage from current location. User can get driving directions.

User can click on “Back to Shopping List” or “Back to Recipe.”

CONCEPTUAL MODEL 2 PROS:

- Basic design makes it simple to use for the seasoned and novice app user.
- Large icons make it easier for older persons viewing the interface to navigate efficiently.
- There is consistent navigation in the tab bar through all the screens.

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CONCEPTUAL MODEL 2 CONS:

- Not visually appealing; very basic layout
- Data is not automatically populated; user has to hit the enter button for data to populate.
- There is no “new search” option until the end of the search.