HCI 440 Team Project 1
Discovery and Requirements Definition
Team 1 (DJ FLAVOR)
27 September 2011

Team members, contributions

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Project Overview

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.

Did you know that a small jar of the spice cardamom is about $13? If you did, would you change a recipe selection? Uniquely, Foobie partners with the USDA Economic Research Service's Quarterly Food-at-Home Price Database (http://www.ers.usda.gov/Data/qfahpd/) to provide updated cost estimates of the foods, spices and herbs from the ingredients list of the recipe selected in the app.

Value Proposition:
For "Foodie Newbies" who are looking to explore the world of cooking or thrifty chefs who need recipe ideas to stretch a dollar, Foobie is an iPhone app that helps you create your meal from start to finish.

Unlike Epicurious, Foobie provides a cost estimate of the intended recipe and suggests grocery stores based on your location.

Persona

Meet John:

Background
33 years old
College Education
Corporate Web Designer
Active social life
Lives in an urban setting
Tech savvy

User Profile
"I'd rather not take the time to sit at a computer and research recipes in my free time. I'm always on the go and need an efficient app that's going to find the easiest, closest location to buy the ingredients I need while on my way home from work."

John is a 33-year-old Web Designer for a large corporation in downtown Chicago. He and his girlfriend have very active social lives and like to take advantage of everything the city has to offer. They both enjoy shopping at farmer's markets on the weekends in search of unique, fresh ingredients.

During the week, John spends a lot of time commuting. He is an avid Smartphone user, keeping in touch with friends and family while on the go. While spending a lot of time in front of a computer during the day at work, he chooses to stay away from the computer during the evening. The DVR is the holy grail of convenience when it comes to TV but, in the rare instance that the TV is on, The Food Network, Palladia or sporting events are playing in the background. He cooks and hosts dinners at least once a month for friends or family.

General Attributes
Hosts dinner parties with girlfriend
Interests include playing guitar, going to concerts, local restaurants, drinks with friends, running/ working-out, wine tasting, yoga
Smartphone user to keep up with social calendar
World traveler, interest in experiencing world cultures

Representative User Needs
Wants to find recipes using unique ingredients.
Is always on-the-go and needs a quick and easy way to search and find local stores that offer recipe ingredients.

Persona

Meet: Bridget Jones

Background
21 years old
Single College Student
Originally from Denver, Colorado, currently living in Chicago, Illinois
Full time student at Le Cordon Bleu
Hobbies cooking for friends and hanging out with friends

User Profile

Bridget is a full-time student Le Cordon Bleu in Chicago Illinois. She works part-time at Target. Bridget first realized cooking was her passion and that she loved to cook when she was old enough to stand on a stool in my mom's kitchen and make cookies. By the time she was 13, she was cooking dinners for the family. She would tell her parents that she wanted to be a chef. Right after high school, she enrolled in culinary school.

On the weekend she is always trying new recipes for her friends and family. Her family and friends enjoy all the meals that she cooks for them. Bridget does not like going from store to store looking for the best prices on ingredients. When she can she uses the ingredients she has at home.

General Attributes
Full-time student, works part-time
Likes cooking for friends
Enjoys learning new recipes
Limited budget
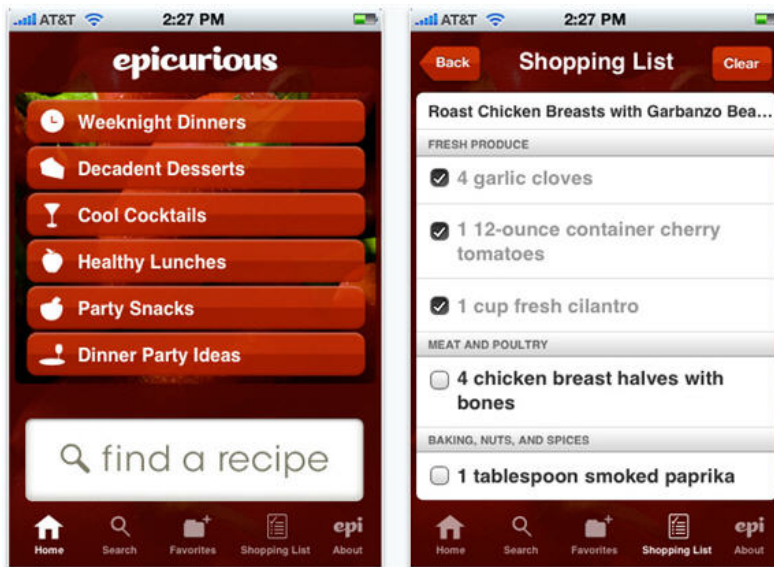
Representative User Needs
Access new recipes quickly
Find recipes using ingredients that she already has at home
Find local store carries all of the required ingredients a recipe for a low price
A place to store her favorite recipes in one location

Competitive Analysis: Epicurious

Product Description

Epicurious is a cooking app for the iPhone that uses the extensive database of recipes from Epicurious.com. The user selects a/some main ingredient(s) from a scrolling list and then designates what type of meal she wishes to create (course, style of cuisine, etc.). The app then provides a shopping list and the ability to add the meal to a list of favorites.

Functional Properties

- offers an extensive variety of recipes
- users choose a recipe based on a couple of ingredient selections
- users may also search for a specific recipe
- creates shopping lists
- saves favorite recipes in a "favorites" folder

Notable Design Properties

1. The layout of the most important considerations for finding a suitable recipe is very easy to read and comprehend. Options for main ingredients, course, dietary restrictions, cuisine, dish type, and occasion help to narrow your search, and are easy for the user to see and consider.
2. The ingredients list is elegant and extensive. The user may choose only one ingredient or several to limit her recipe suggestions. The design of the sliding list of ingredients is easy to understand quickly and fun to use.
3. When a main ingredient (or other important consideration) is selected from the scrolling bar, this is written at the top of the page to remind the user what she has selected. The design of this reminder is unobtrusive and very helpful.
4. Each of the important considerations offer the consistent layout of a sliding row of pictures to select. This consistency makes it very usable.
5. A widget in the upper right-hand corner allows the user to toggle between a drink "cook book" and a food cook book. It is a visible but unobtrusive design.

Value Proposition

For people who wish to delight and entertain with food, Epicurious is a app that offers an extensive database of recipes, both for food, alcaholic and festive beverages. Unlike Cookstr, Epicurious will make suggestions based on holiday, season, or style of cuisine, making party planning easier.

Competitive Analysis: Cookstr
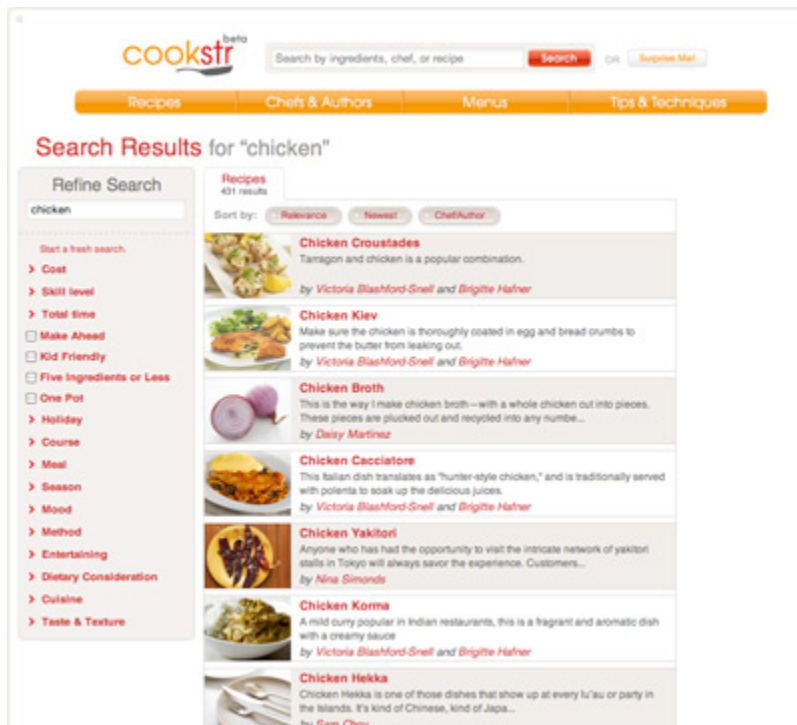
Product Description

Cookstr.com has a large collection of cookbook recipes online, for people that love to cook. Users can find recipes taken from popular cookbooks created by famous chefs. Users can also find recipes by ingredients, chef name, or recipe name. Each recipe is provided with all the necessary information as well as photo of the finished dish.

Functional Properties
- Browse recipes by category listing; ingredient, cost, skill level, cook time, etc.
- Quick search
- Learn about featured chefs and cookbook authors
- Save favorite recipes

Notable Design Properties
1. Recipes are highlighted by color image
2. Recipes names bold and highlighted
3. Layout is simple and maximizes the ability of the user to navigate

4. Search function is color coded
5. Sort function is placed in visible location.

Value Proposition
Cookstr is web-based catalog designed for anybody who wants to learn a new recipe by famous cooks. User can explore the large database of diverse collection of recipes to find the perfect dish.

Competitive Analysis: Cookmate

Product Description
Cookmate is an app that finds recipes based on the ingredients the user has in the pantry. It also creates a shopping list of the missing items.

Functional Properties
- Check items that you currently have available
- Cookmate will offer you different recipe ideas that include your available ingredients
- Cookmate will inform you how to prepare each dish

Notable Design Properties
1. Stylish and beautiful User Interface
2. Easy to use, easy to Cook Recipes
3. Easy to Post to your wall on Facebook
4. Navigation buttons and bars are easy to understand and use
5. Standard controls
6. photo of recipe

Value Proposition
Cookmate is an application that can be used by anyone from the novice cooker to the professional cook.

Requirements Gathering Methodology

Documentation Study #1

Devine, Paula, Gray, Anne Marie & Lloyd, Katrina (February 2006). University Student Food Attitudes and Behaviour Survey. *Northern Ireland Social and Political Archive (ARK)*. Retrieved from http://www.food.gov.uk/multimedia/pdfs/nistudentsurvey2005.pdf

Methodology: Survey of 3,412 university students (the mean age was 22 years old) in Northern Ireland

Findings (shopping):
· 	More undergraduate students said they could not afford to cook a main meal every day, compared with postgraduate students
· 	62% of respondents identified the price of food as being one of the three most important factors they considered when buying food
· 	63% of respondents usually bought groceries about once a week, and 29% shopped for groceries every 2-3 days
· 	45% of those living in university accommodation liked or really liked shopping for food
· 	46% said that they sometimes worried that food will run out due to a lack of money

Findings (cooking):
· 	70% of respondents liked or really liked cooking
· 	28% of students said that they prepared or cooked their main meal of the day from fresh or raw ingredients once a day
· 	The main reasons identified for not cooking a main meal from fresh ingredients at least once a week were lack of time (57%) and eating pre-packed/convenience foods or meals (40%)

Findings (eating):
· 	71% of respondents living on their own, in university accommodation or living with friends or other students prepared and ate food individually, rather than as part of a group

Summary of Findings

Younger students say they can't afford to cook a main meal every day. The cost of food is an important factor to most students, and a source of worry for some.

Most students shop often for groceries, and find it an enjoyable activity.

Most students enjoy cooking, but lack of time and prevalence of convenience foods prevent students from cooking a main meal from fresh ingredients. Still, many students do cook their main meal of the day from fresh ingredients.

Most students living on their own will prepare and eat food individually.

Documentation Study #2

Datamonitor (December 2006). Changing Cooking Behaviors & Attitudes: Beyond Convenience. Retrieved from http://www.giiresearch.com/report/dc48396-behaviors.html#TOC

Methodology: Cooking behavior-specific survey of 5,000 consumers in the U.S. and Europe

Findings (cooking):
· 	Consumers' attitudes still largely favor scratch-cooking (52% of European dinner occasions and 44% in the US) and increasing people are aspiring to alter day-to-day cooking behaviors to more accurately reflect this. Cooking skills, especially amongst younger consumers are associated with a "new cool" and are seeing signs of a renaissance.
· 	Fragmenting mealtimes, erosion of basic cooking skills and a desire to use free-time for other activities will continue to fuel the desire for time-saving, easy meal solutions.
· 	Consumers are however increasingly keen to cook exciting, flavorful and interesting meals themselves
· 	Home cooking is emerging as a "status skill"
· 	Younger consumers are looking to cook more creatively, bucking usual stereotypes
· 	The young are still limited by weak cooking knowledge

Summary of Findings

Consumers favor meals made from scratch, and are willing to alter their behavior to accomplish this. They are also interested in cooking exciting, flavorful and interesting meals. However, time-saving and easy meal solutions are often chosen because of a lack of skills and free-time.

Among young consumers, home cooking is associated with status and "coolness". They are also interested in cooking creatively, despite the stereotypes. However, younger cooks lack sufficient knowledge.

Documentation Study #3

Hall, Trish (January 15, 1992). New 'Lost Generation': The Cooking Illiterate. *New York Times.* Retrieved from http://www.nytimes.com/1992/01/15/garden/new-lost-generation-the-cooking-illiterate.html?pagewanted=4&src=pm

Findings (cost)
· 	People who became accustom to eating good food at restaurants now can't afford to, so they want to cook the food at home to save money

Findings (cooking)
· 	In a 1990 Yankelovich poll of 2,500 people, conducted in person, only 34 percent said that cooking was creative and satisfying; in a survey of a different group in 1991, that number rose to 41 percent
· 	Meals that include a homemade ingredient declined from 48 percent in 1984 to 42 percent in 1991
· 	Cindy Ayers, who oversees the test kitchen and recipe development for the Campbell Soup Company, said consumers want to be told the most basic things: when the food is done,

for example. "They don't feel comfortable with their judgment," she said. "I think their confidence is down because their cooking skills are less."

·   Comfort and flexibility in the kitchen are increasingly rare

Summary of Findings

People increasingly find cooking to be a personally satisfying venture. Practically speaking, people want to save money and eat well at the same time by cooking at home. However, confidence and skill in the kitchen are lacking, and meals that include a homemade ingredient have declined.
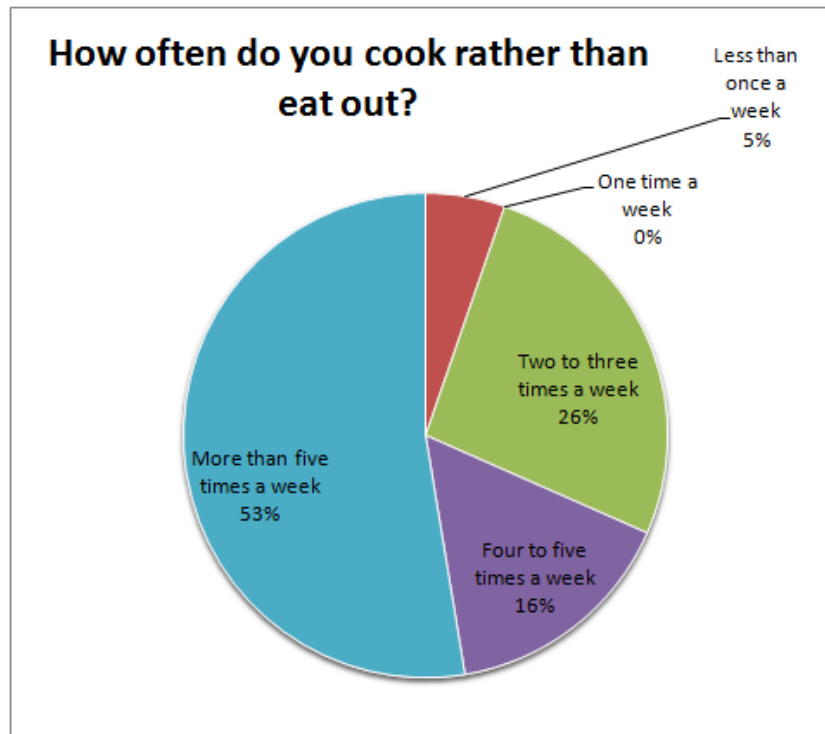

Requirements Gathering Findings

Home Cooking Survey

In order to gather information regarding the cooking and shopping habits of our target users, we utilized a 10 item survey. The sample size polled for the survey consisted of 19 subjects and the survey was distributed online through SurveyMonkey.The survey was specified towards users with either interests or experience in cooking. Our overall goal was to determine how these users go about cooking rather than eating prepared meals. Alongside this, it was important for our research to determine how useful an application such as the one we propose would be for our potential clientele. Through thoughtful analysis of the results we have found that the findings are in support of our ideas.

Summary of Findings

The results of the survey generally displayed a distinct pattern. Most subjects within the target groups answered the survey items generally the same. For instance, when polled how often the subjects cook rather than eat prepared meals, only one respondent indicated that s/he cooks less than once a week, while all others reported that they cook at least two to three times a week.

How often do you cook rather than eat out?

- Less than once a week 5%
- One time a week 0%
- Two to three times a week 26%
- Four to five times a week 16%
- More than five times a week 53%

In fact, more than half reported that they cook five or more times a week. This fact is of course important to our research, as a general view of how often potential users would be in a situation to utilize the application we propose. Fortunately, based on our results, nearly all subjects were familiar with utilizing recipes acquired from digital sources. This would allow for an easy adjustment (such as switching from the internet to our application) in order to pull up recipes. Generally, the subjects showed a great interest in cooking with new ingredients that they may never have cooked with before. This indicates two important concepts: the subjects currently are not utilizing or are generally aware of an application such as the one we propose, and that the subjects would have interest in that feature of our application. When polled regarding the costs of home cooking, nearly all subjects reported that price is among the most important aspects when purchasing ingredients. Although a daunting task, this result indicates that including some sort of pricing aspect to our design, which we have added at this point, would be useful to our potential customers. All in all, the survey results tend to follow a trend which favors the use of the application we propose.
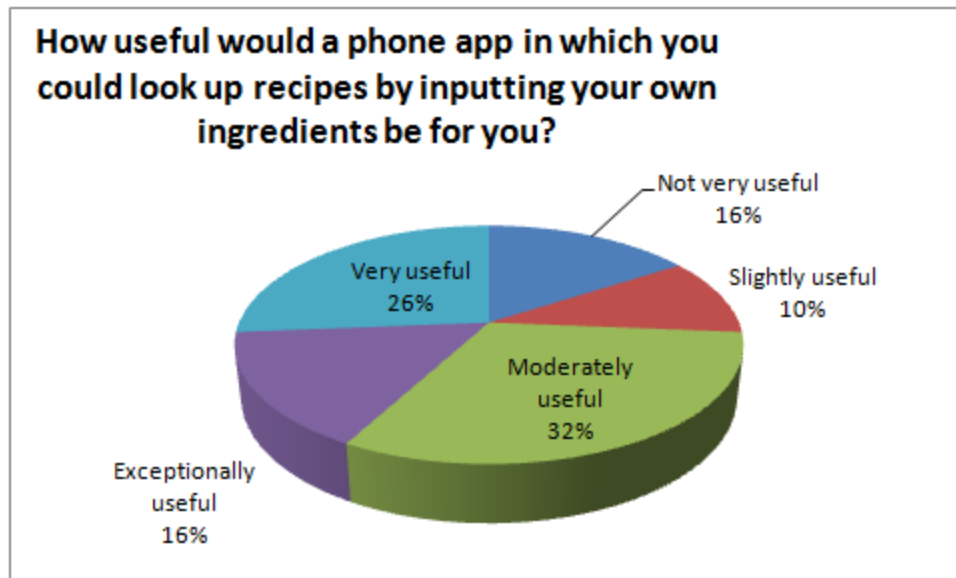
Requirements Definition

Functional (what the product should do)
Locate recipes based on ingredients
    App allows user to refine search based on dietary restrictions, recipe difficulty level,
    time spent cooking, etc.
Create estimate of cost
Populate shopping list
App uses phone's GPS to locate both user and nearby grocery stores
Creates favorites folder

Non-functional (memory size, response time)
System starts populating recipes immediately as users begin typing ingredients
App uses device's GPS location technology to locate both user and nearby grocery stores
Saving recipes locally in favorites folder
Saving grocery lists

Environmental (context of use, physical environment, social environment, organizational, hierarchy, user support)
App should be functional in a variety of home settings, grocery settings, and outdoor market settings

Data
Recipe database
    Partnership with frugalcooking.com, allrecipes.com
Cost of groceries data (for estimate)
    USDA Economic Research Service's Quarterly Food-at-Home Price Database
    (QFAHPD) - http://www.ers.usda.gov/Data/qfahpd/

Google Maps connection for grocery story location
Personal data folder of favorite recipes

Usability
Searching will auto complete
Text should be easy to read, especially for recipes
      In environments like grocery stores where user is moving around
App navigation should be intuitive and easy to learn
Responds to single tap navigation

User Requirements (characteristics, abilities, level of skill)
Somewhat tech savvy
Knowledgeable of iPhone interface
Knowledgeable of Google Maps
Familiar with "search and discover" process
Recipe database should offer low-cost options
Recipe database should offer options for a variety of skill levels

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Appendix

Data from competitive analysis from: http://www.iphoneproguide.com/top-10-cooking-recipe-apps-for-the-iphone/
http://www.cookstr.com/
http://www.cookmateapp.com/

Documentation Studies

Devine, Paula, Gray, Anne Marie & Lloyd, Katrina (February 2006). University Student Food Attitudes and Behaviour Survey. *Northern Ireland Social and Political Archive (ARK)*. Retrieved from http://www.food.gov.uk/multimedia/pdfs/nistudentsurvey2005.pdf

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Hall, Trish (January 15, 1992). New 'Lost Generation': The Cooking Illiterate. *New York Times.* Retrieved from http://www.nytimes.com/1992/01/15/garden/new-lost-generation-the-cooking-illiterate.html?pagewanted=4&src=pm

Home Cooking Survey

1. How often do you cook rather than eat out?
·   Less than once a week
·   One time a week

- Two to three times a week
- Four to five times a week
- More than five times a week

2. Do you enjoy using new recipes that you find to cook dishes you have not before?
- I don't enjoy it at all
- I enjoy it very slightly
- Moderately
- I generally enjoy it
- I love creating new dishes

3. How useful would a digital recipe/cook book be for you?
- Not very useful
- Slightly useful
- Moderately useful
- Exceptionally useful
- Very useful

4. How difficult do you find it to remember recipes?
- Very difficult
- Slightly difficult
- Neither easy nor difficult
- Somewhat easy
- Not a problem at all

5. Currently, what method(s) do you use to look up recipes (check all that apply).

- I don't use recipes
- I remember any recipe I need
- I use a cook book
- I use the internet
- Other (please specify)

6. When you set out to cook, do you prefer to cook with what you have on hand, or go to a grocery store to purchase additional ingredients?

- I generally tend to cook only with what I have on hand
- I will seldom go to the grocery store to complete a recipe if I need to
- I am indifferent and am willing to purchase additional ingredients
- I almost always go to the grocery store to purchase additional ingredients

7. How aware are you of local grocery stores in your area?
- I don't know where any are

·   I know where one I frequently visit is
·   I know of a couple major grocery stores in my area
·   I am aware of several grocery stores in my area
·   I know how to get to every local grocery store

8. When at the grocery store, I sometimes wonder what dishes I could make using the foods I see.

·   Not ever
·   Rarely
·   Sometimes
·   Commonly
·   Almost, if not all the time

9. On a scale of 1 to 10, with 10 being the most important, please rate how important price is when shopping for ingredients to cook with.

1   2   3   4   5   6   7   8   9   10

10. How useful would a phone app in which you could look up recipes by inputting your own ingredients be for you?

·   Not very useful
·   Slightly useful
·   Moderately useful
·   Exceptionally useful
·   Very useful