

Homework #1 - Specifying a Web Application

Executive Overview

The Problem

Planning your meals can be difficult for a variety of reasons. Healthiness, cost, and enjoyment are all factors. Staying organized and still being satisfied without wasting time or money is a challenge for everybody. People typically spend far too much time every day deciding what it is they're going to eat, going grocery shopping multiple times, and preparing the meal. There is also a huge problem with food waste which is often caused by purchasing excess ingredients. What people need is a way to be organized and efficient in regards to meal planning so that they can spend more of their time worrying about other things in their life.

Summary:

- 1) Wasting time on planning meals
- 2) Wasting money on excess ingredients
- 3) Lack of variety and ability to create better meals

The Solution

An application that allows you to search from a database of food items in order to create lists of your favorite foods, grocery shopping lists, and weekly meal plans. Users will be able to track the macronutrients of each meal or a combination of meals. Grocery shopping lists are also customized to each meal plan so that the user will know exactly how much ingredients are needed. Using the Nutritionix database, our application can provide an extensive selection of meals to choose from to create innovative and better meal plans.

Summary:

- 1) Helps you spend less time thinking about your meals
- 2) Helps you save money by preventing unnecessary food purchases
- 3) Having a large selection from the Nutritionix database allows you to come up with more interesting meals and food combinations

Study of Personas



The Disorganized College Student

Bob goes to the grocery store whenever he is hungry and has ran out of food at home, buying anything that looks appetizing and ends up with a random assortment of food that don't add up to meals. After a day or two ends up going to Chipotle, spending what little cash he has leftover from his student loan. He needs a way to plan affordable meals and to avoid buying excess ingredients.



The Aspiring Supermom

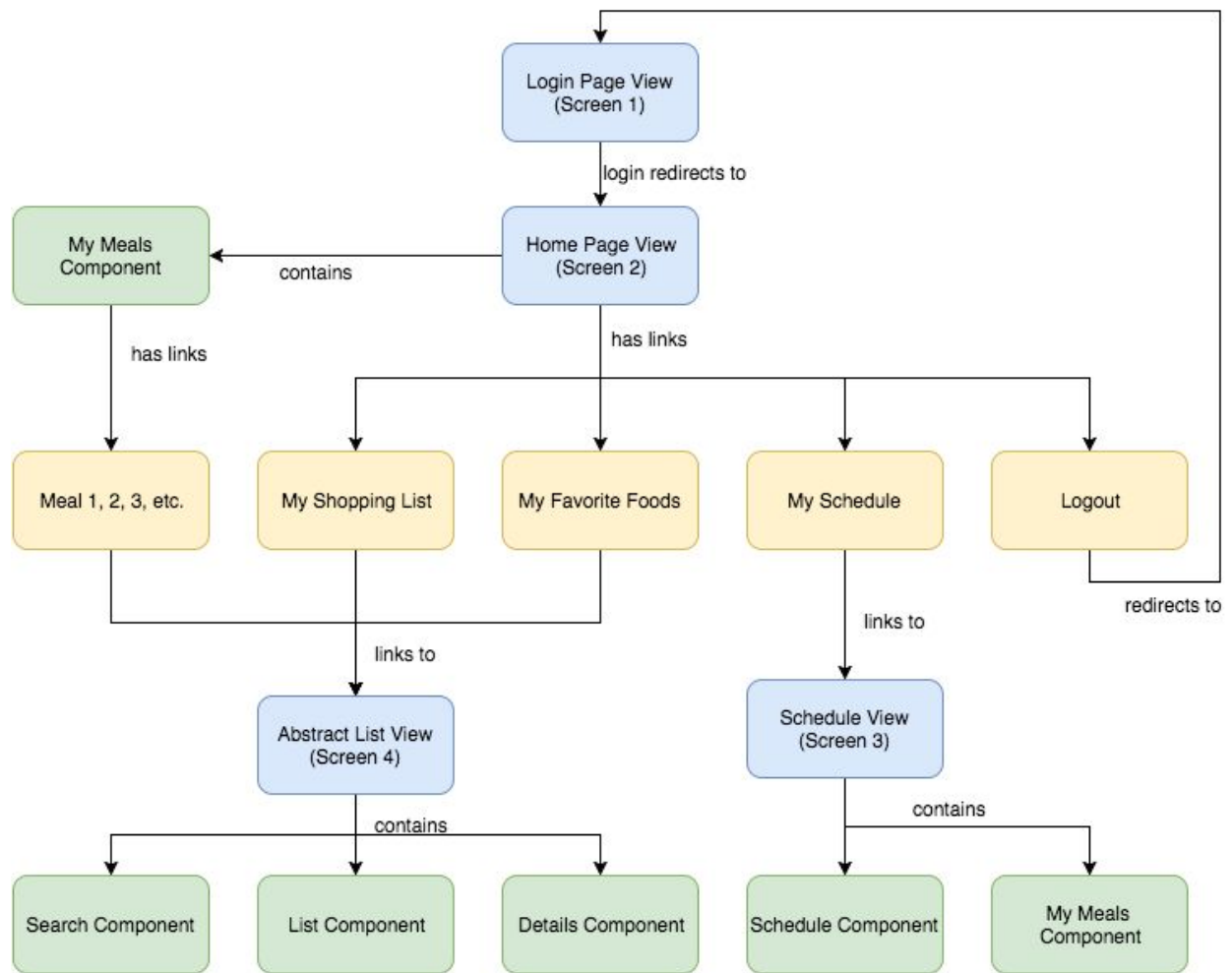
Karla works a 8-4 job and only has two hours a day to prepare dinner for her husband and children. She often has trouble finding a quick meal to prepare in and keeping track of which ingredients she needs for the week, because she usually ends up throwing away excess ingredients. If only she had a way to plan her grocery shopping list and figure out what enjoyable meals she can prepare quickly.



The Dieter

John is trying to lose weight. He hits the gym almost every day and is making a lot of progress, but every once in awhile he gets home and there is no fresh food to eat, so he decides to eat a microwavable burrito... or three. He needs a way to plan three satisfying low-calorie meals a day so that he doesn't impede his own progress with weight loss.

Flow Diagram:



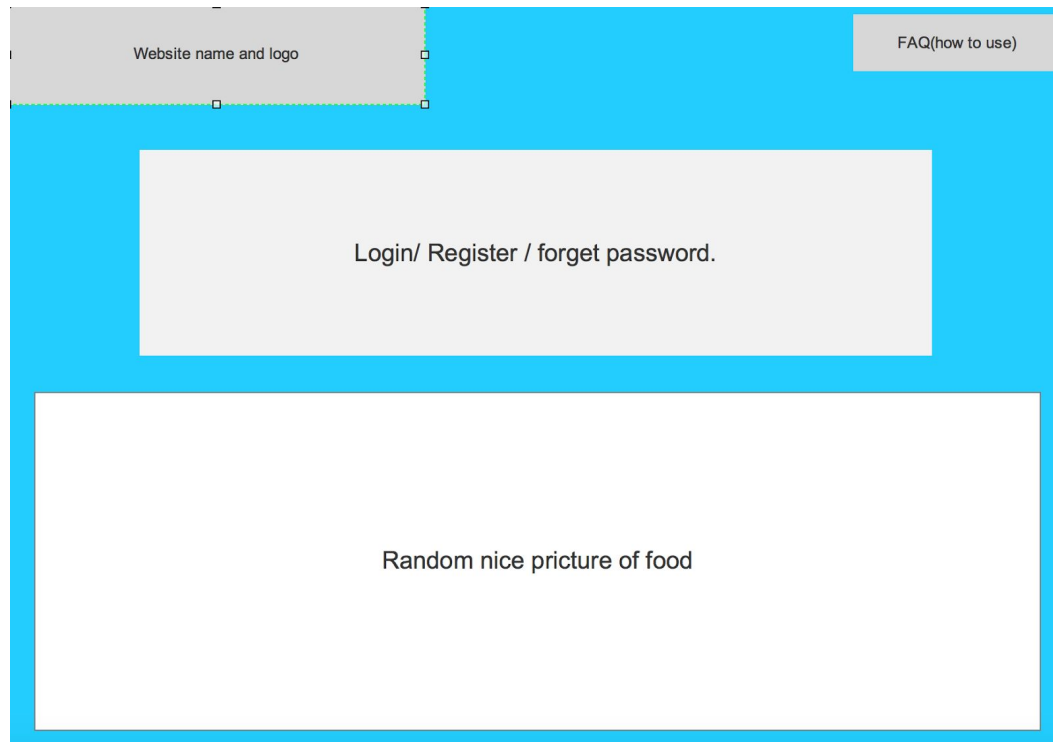
Legend:

Blue - A view

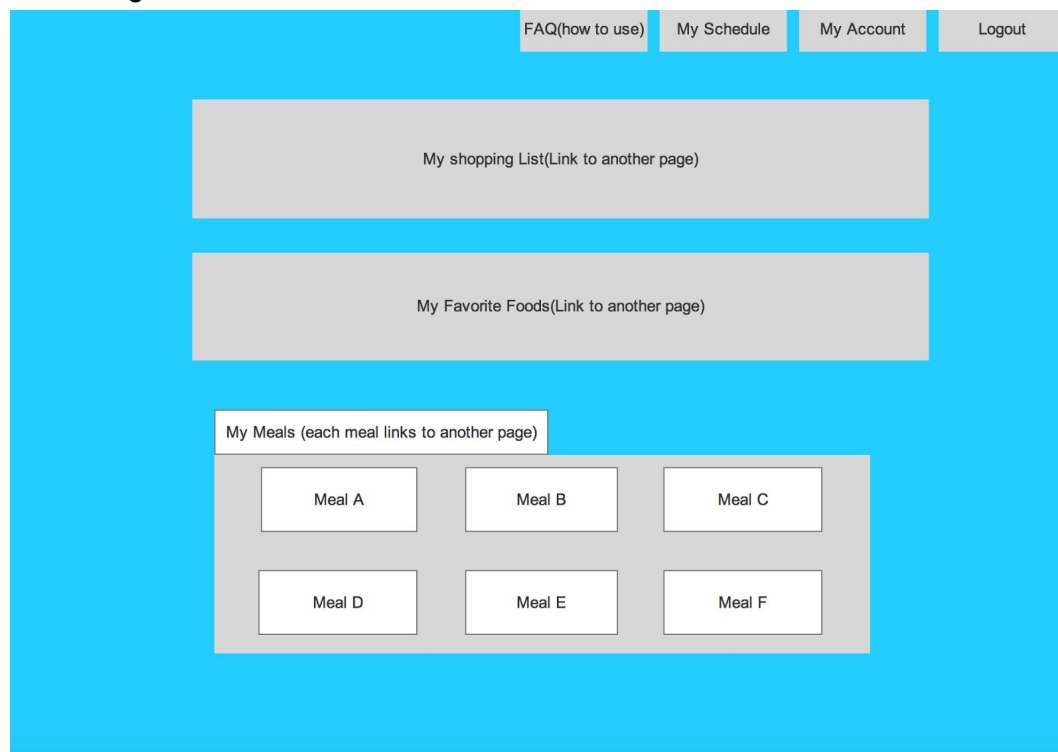
Green - A component (part of a view)

Yellow - A link (part of a view)

Wireframe: Login Page



Home Page



Schedule

[FAQ\(how to use\)](#) [Home Page](#) [My Account](#) [Logout](#)

	Breakfast	Lunch	Dinner
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

My Meals (you can add these to schedule)

Meal A

Meal B

Meal C

Meal C

Meal C

Meal C

List Page (abstract; used for meals, shopping list, and favorite food list)


Search Panel
Search food database, view results, and add items to your list from here

List of food

Item 1

Item 2

etc.



Detail Panel
(includes image of food,
calorie info,
macronutrients,
cost,
etc.)

Important Notes

Strengths

- Ability to construct exact customized shopping lists based on any meal plans
- Select foods from the Nutritionix database, which has over 500k food items
- Add items into favorites list for further meal plans
- Conduct nutrition facts of the entire meal list and help user to achieve their goals

Weaknesses

- No social functionality to share meal plans with other people
- Currently no recommended guide for meal planning such as suggested calorie intake or macronutrients
- No history of deleted meal plans and ability to track past schedules
- User doesn't know if they can not find the ingredient in the grocery store nearby
- Application doesn't know how to cook the meal

Risks

- Users may unknowingly plan cost inefficient and unhealthy meals
- User might prepare too much or too little food
- Too many meals could make it difficult to construct a meal plan
- Meal plan maybe difficult for users to cook

Execution

- Use Firebase as backend infrastructure which will store personal information, favorite meal list and meal plan for each user.
- Use HTML and CSS to build and style our front end web pages
- Use AngularJS as a front end framework to make use of it's repeater function and the two way data binding.