

Calorie 2 Grocery

ASE Project Proposal Document

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**Motivation**

Diet plays a major role in leading a healthy life style. Due to busy schedules, it has become difficult to plan for a healthy and nutritious diet. Irregular diet leads to obesity and overweight. Calorie information gives the energy content of food. Hence, calorie intake is a good measure to check on weight gain.

Another common problem in day to day life is grocery management. Now-a-days, it is common to forget the groceries available at home. Not keeping track of the expiry dates leads to wastage of food. There are many web apps/Android apps which give the calorie information for different varieties of food items. Also, there are apps which aid in grocery management. But there is no single application that handles both the functionalities.

**Significance**

Our project focuses on providing all the required information for the user to plan for a healthy meal. A user can have a clear view of the groceries available at home from anywhere. This helps the user to plan his/her meal, search for the recipe and buy the required ingredients before reaching home. The app also gives the calorie information for each ingredient in the recipe thus providing nutritional information to the user. This information could drive the user to go for healthier meal options. Also, the app provides flexibility to add/remove ingredients in the recipe or create his/her own recipes.

Our app works as follows:

Suppose a user would like to have vegetable sandwich for dinner. Say, he has tomatoes, onions and bread at home. Using our app he can do the following:

1. User can add tomatoes and onions to his currently available groceries list. User can update the list every time he purchases groceries.
2. User can search for a recipe of veg sandwich
3. The app displays the ingredients for the sandwich. Eg : Bread, Potatoes, Onions, Cucumber, Tomatoes, Lettuce
4. Based on the calorie information, user decides to remove potatoes from the sandwich and add olives. The app then updates the overall calorie count of the sandwich.
5. Once the user is satisfied with the recipe he can click ok, the app then displays the groceries he/she needs to buy to prepare the sandwich. Also, the quantity of tomatoes and onions will be decreased in the backend to reflect the usage. In this example, the app shows that the user needs to buy Cucumber, lettuce and olives.

**Objectives**

The goal of the project is to develop an application that allows the user to

1. Maintain a list of groceries available in their home
2. Search for recipes and save them for quick reference
3. Get the detailed information of calories per each ingredient required for the recipe
4. Add/remove the ingredients and adjust the quantity of the ingredients
5. Get the final count of calories per serving of the recipe
6. Based on the ingredients, get a list of groceries to buy in order to prepare the recipe.

**System Features**

Taste wins over health for most of the people. Also, after a day of work it is natural to prepare meal based on the ingredients that are available at home. Mobile apps are fun to use. Our endeavor is to develop an application that can be very useful in maintaining proper diet and purchase groceries accordingly. It fulfills two main objectives: Firstly to provide calorie information about the ingredients. Secondly, to automatically generate a shopping list so that the user doesn’t miss something he needs to buy.

**Software Requirements**

**Front end:** Android

**Back end:** SQL Lite

**Web services:** National Nutrient Database for Standard Reference (NDB)

**Architecture Designs:** UML Diagrams using Microsoft Visio 2013

**Project Management:** Scrumdo

**Related Work**

There are few applications that gives calorie information of the particular item that could help the user to maintain proper diet, but this does not include the grocery information. Some of the other apps that are developed provides user with only grocery management and recipe information. Our idea is to facilitate the user with both the calorie information and grocery management. In this project, we are going to implement this idea which combines both information.

**Backup Project**

Currently, feedback is provided to professors at the end of semester in hard copies. It will be difficult to manually evaluate the feedback. There are a fixed set of questions for the feedback for all the courses. So, we are proposing an app which allows the students to provide feedback to their respective professor. The app automatically calculates the score for each professor based on the university evaluation criteria.

**Bibilography**

<https://developer.android.com/training/index.html>

<http://www.apartmenttherapy.com/whats-for-dinner-6-fridge-management-apps-weekly-smartphone-app-roundup-189441>

<http://www.snaptohealth.org/nutrition-hub/nutrition-on-the-go/>

<http://www.techhive.com/article/2455133/six-grocery-shopping-apps-to-replace-your-paper-list.html>