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# Final Project Proposal

## High-level Overview

* + Our app will provide a way for users to perform a nutritional value look-up for their meals and record the food and nutrition for the day.
  + We will be using the FoodData Central API (<https://fdc.nal.usda.gov/api-guide.html>) which lets you view the nutritional content of different foods.
  + For example, you would input a meal of 2 chicken breasts, 1 cup of rice, and 100 grams of broccoli; resulting in a breakdown of calories, protein, carbohydrates, etc.This would then be stored to the phone for future reference by the user.
  + This will be implemented in a simple but usable UI in Android Studio.

## API Description

* + The FoodData Central API will be used to retrieve the nutrition information for the meal. This will be done by iterating through each food entered for a meal, and then the returned information will be combined to give an overview of the meal.
  + <https://fdc.nal.usda.gov/api-guide.html>
  + Methods to call:
    - Food Details Endpoint, returns details for a specified food, will be used to calculate the total nutritional values of a meal. Will need to query the name of each food item in a meal.

## UI Layout

* + Main activity - Meal List: This activity will contain a list of the users previously saved meals with the date/time information as well as a name for the meal. This screen will include a button to add a meal (takes user to ‘Add meal activity’ and a settings button (takes user to ‘Settings activity’).
  + Add meal activity: This activity will allow the user to input their meal. It will have fields for the date, meal name, and individual foods to add (name, amount). There will also be a button to add additional fields for foods and an option to take a picture of the meal. The user will be able to return to the main activity without saving using a back button or save and return to the main activity with a checkmark button.
    - This activity will use the camera function in order to capture a picture of the meal. This will be our additional feature.
  + Settings activity: This will allow the user to update settings such as the times for each meal category (e.g. 8AM-11AM is Breakfast, 12PM-2PM is lunch, etc).

## Mocks

These mocks show our primary activities: Main Activity - Meal List and Add meal activity as described above.

