

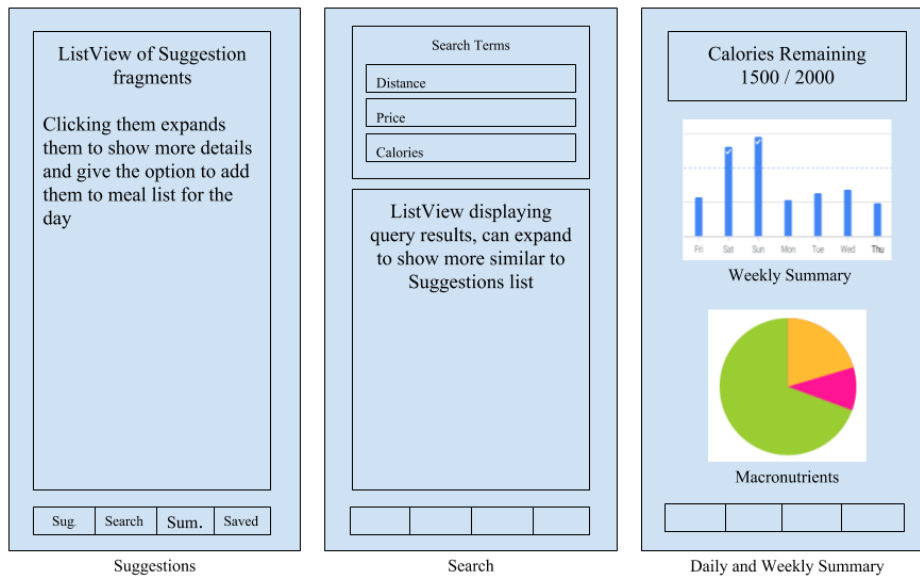
CS371M Project Proposal

Laura Shub

- Give your app a title.
Caloreats
- List contact email(s).
shublaura@gmail.com
- What sort of app are you building? What will be the major subsystems? What will be the major challenges?

This app will be a meal-planner type using location data, restaurant/menu databases, and entered parameters to suggest nearby restaurants and entrees. It will include daily and weekly calorie counts and macros, as well as a user determined calorie goal that it will use to tell the user how many calories they have left for the day. Reach goals would include by-ingredient breakdowns of entree items as well as the ability to make substitutions, save favorite meals, and upload pictures/reviews of entrees that other people can see. Major challenges are going to be creation of the system to suggest meals as well as creating a diary where the user can record the meals that they have eaten.

- Sketch the major user interface elements (i.e., actually draw them and include the drawing in your proposal. Focus on elements that are likely to be difficult.



(colors not final)

The main difficulties visually will be drawing out the weekly summaries and macronutrient graphs. My current plan is to implement these using the open source android graph API available at <http://www.android-graphview.org/>. If this doesn't work or is otherwise unusable, I plan to create my own view similar to the Tetris board in homework 4.

- *Include a week-by-week schedule.*

Week 1 (10/22 - 10/26)	Begin compiling food and restaurant database and implement query system, based largely on the flipped classroom project.
Week 2 (10/29 - 11/2)	Implement weekly calorie/macro trackers, ability to set calorie goal
Week 3 (11/05 - 11/09)	Integrate location-based services into queries, such as calculating the distance to the restaurant and allowing the user to search within a certain distance
Week 4 (11/12-11/16)*	Project Demo Due 11/12
Week 5 (11/19-11/23)	Include suggested entrees and foods based on the users priority settings, remaining calories, etc.
Week 6 (11/26 - 11/30)	Add functionality to save favorite foods, bookmark meals and restaurants that the user may want to try in the future, possibly upload photos of foods
Week 7 (12/3 - 12/7)	Finalize animations, look and feel of the app.
Week 10 (12/10)*	Final project deliverable and write-up due

- *List the APIs you will be using.*

To return results based on the user entered parameters, the app will use the android.database package with SQL databases and queries, similar to the 4th flipped classroom exercise. In order to implement the location-based functions, the Google Maps API will be used.

- *Include a short functional specification for a deliverable that you will demo to the TA. The date your demo is due is listed on the course syllabus as a the project deliverable. The purpose of the deliverable is to help us ensure that you are on the right track.*

For the short demo, I plan to have a working query system with location, food type, and calorie search fields as well as the Google Maps location functionality. I also hope by this point to implement a calorie tracker and food diary where the user can view the meals that they have eaten for the past few days. Finally, I hope to have some working graph creation for the “Daily and Weekly Summary” page, even if all the functionality to actually calculate the values shown in the graph is not yet finished.

- *Include a short discussion of other apps that have similar features and the sources of inspiration for your design.*

This was mainly inspired by apps such as MyFitnessPal and Cronometer that are used for diet tracking, with an added focus on restaurants now that the law stating that chain restaurants with above 20 locations must publish calorie counts is going into effect.¹ Existing diet apps have databases for ingredients and restaurants, but they typically do not provide the user with suggestions of where/what to eat. This additional restaurant-focused functionality is largely inspired by review sites like Yelp.

1. <https://www.cnn.com/2018/05/07/health/restaurant-calorie-count-partner/index.html>.