

CMSC 12200 Final Project Proposal -- Food Butler

Project name: A Weekly Food Menu Planner

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Goal: This application helps students/working professionals plan the food menu for a week, or any other preferred periods, which could cater to customized needs indicated optionally. Examples include dietary restrictions, fitness schedule (calories), ingredients that the user already has and would like to use, dinning style and taste preferences, and budget constraints. This application also helps generate the list of ingredients that is needed for the planned week's menu and the associated prices for budgeting purpose. To further help the users in the cooking process, we will include the recipes for each food course planned and possibly a timer as well. To optimize user experience, we may further address dishes beyond the traditional three meals which could possibly include morning breaks, afternoon tea, and midnight snacks/fourth meal, all under user's choice. If time permits, this project will include additional features such as recommending liquor and music along with each meal.

Potential sources of data:

- Allrecipes: <http://allrecipes.com/>
- Recipe: www.recipe.com/
- United States Department of Agriculture, Agricultural Research Service, National Nutrient Database for Standard Reference Release 28: <http://ndb.nal.usda.gov/ndb/foods>
- Peapod: <http://www.peapod.com/> (estimated cost of meals)
- List of cuisines: https://en.wikipedia.org/wiki/List_of_cuisines
- A food classification and description system developed by European Food Safety Authority (efsa): <http://www.efsa.europa.eu/en/data/data-standardisation>
- Two good recipe sources: <http://www.bbc.co.uk/food/cuisines>
http://cafeworld.wikia.com/wiki/List_of_Cuisines

List of work required (including but not limited to):

1. Collect data
2. Process data into suitable database, including relevant tables for data storage
3. Complete basic functions that returns the menu
4. Complete functions that take in added parameters and APIs
5. Add in price estimator
6. Add in timer

Planned working schedule

Deadlines:

- Written Proposal (Due: Jan 26th at 5pm)
- (1) scraping websites and storing data into databases (end of 7th week)
- (2) algorithms and functions for putting together a menu (end of 8th week)
- (3) Django website structure ie. search engine, output/menu page, timer on recipe pages (end of 8th week)
- (4) putting results on Django site (end of 9th week)
- Completed Software (March 15th at 5pm)
- Final Project Presentations (10th week)

General Outline:

- Work on scraping data (#1) and experimenting Django (#3): week 5, 6, 7
- Work on #2 with sample data and start building Django webpage (#3): week 6, 7, 8
- #4: week 9
- clean-up and minor adjustment to webpage: week 10
- clean up codes: post-presentation

Possible new data structure/programming technology:

1. interactive timer during cooking process
2. image (taken from source) that redirects you to the recip page if you click on it
3. Django designs
4. Capability of synchronizing into iCalendar or Google Calendar
5. The selecting regime used for generating/optimizing food menu, innovative regression method possible