Team group d'etat
P02 - The End
SoftDev1 pd7
Rachel Ng, Ray Onishi, Tina Wong, Maggie Zhao

Name: ambrosia

Description: This website will focus on monitoring all aspects of the user's health. It will track the number of hours of sleep and exercise, the amount of water intake, as well as the user's diet based on user input. In order to encourage the user to pursue a healthier lifestyle, the website will also suggest workouts that exercise different parts of the body as well as food recipes that fulfill the nutrients missing from the user's diet.

List of Program Components:

- Account creation through a signup form on the website allows users to directly create their accounts on the site
- Logout capability
- Authentication
- Create a SQLite database that stores the data about:
    - Each user and their login information
    - Each user's height and weight
    - Each user's sleeping patterns for the past week
    - Each user's water intake
    - Each user's amount of exercise for the past week
    - Each user's allergies, dietary restrictions
    - Each user's diet for that day, including amounts of
        - Carbohydrates
        - Vegetables
        - Meat/poultry
        - Fats
        - Milk
        - Sugary foods
- Allow user to fill out forms to add information about their health
- When logged in, the user's statistics for sleep, hydration, exercise, and nutrition will display on the landing page
    - Statistics for sleep hours, hydration, and exercise should be displayed in respective graphs
- Implement the USDA Nutrients API to allow user to input what they are eating and get how much nutrients they are getting from the food, and how much more nutrients and what kind they need to get
- Implement the Spoonacular API to recommend recipes for the user that fulfill the nutrients that the user has not gotten yet
- Implement the Wger Workout Manager API to allow the user to search for exercise recommendations based on the category (ex: arms, legs, abs)

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- Front End
  - Bootstrap framework for front-end aesthetics because the group is collectively most familiar with it, and it's more compatible with Font Awesome (Foundation has their own icon font) which is also used by Chart.js
  - Javascript to provide front-end dynamism
  - Chart.js for beautiful charts so we can display our data nicely
  - Font Awesome (and probably other downloadable SVGs) for icons
- Back End (Libraries)
  - Passlib library for hashing passwords
  - DateTime library for the date and time

Database Schema:

health.db

User_Information

user_id	username	hashed_password	height	weight	allergies	dietary_restritions	expected_calories	expected_carbs	expected_protein	expected_fat	expected_water_intake
INTEGER PRIMARY KEY	TEXT	TEXT	REAL	REAL	TEXT	TEXT	INTEGER	INTEGER	INTEGER	INTEGER	REAL

Water_Log

id	user_id	year	month	week_start_day	01_intake	...	07_intake
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	REAL	REAL	REAL

updated directly through form on webpage

Sleep_Log

id	user_id	year	month	week_start_day	01_start	01_end	01_hours	...	07_hours
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER

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updated directly through form on webpage

Exercise_Log

id	user_id	year	month	week_start_day	01_hours	...	07_hours	01_targeted_muscle_group	...	07_targeted_muscle_group
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	TEXT	TEXT	TEXT

updated directly through form on webpage

Food_Log

id	user_id	year	month	day	time	meal	calories	carbs	protein	fat
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	TEXT	INTEGER	INTEGER	INTEGER	INTEGER

updated directly through form on webpage

Weekly_Diet

id	user_id	year	month	week_start_day	01_calories	01_carbs	01_protein	01_fat	...	07_fat
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER

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`weekly_diet (year, month, day, user)-` update `weekly_diet` table with info from the `food_log` table

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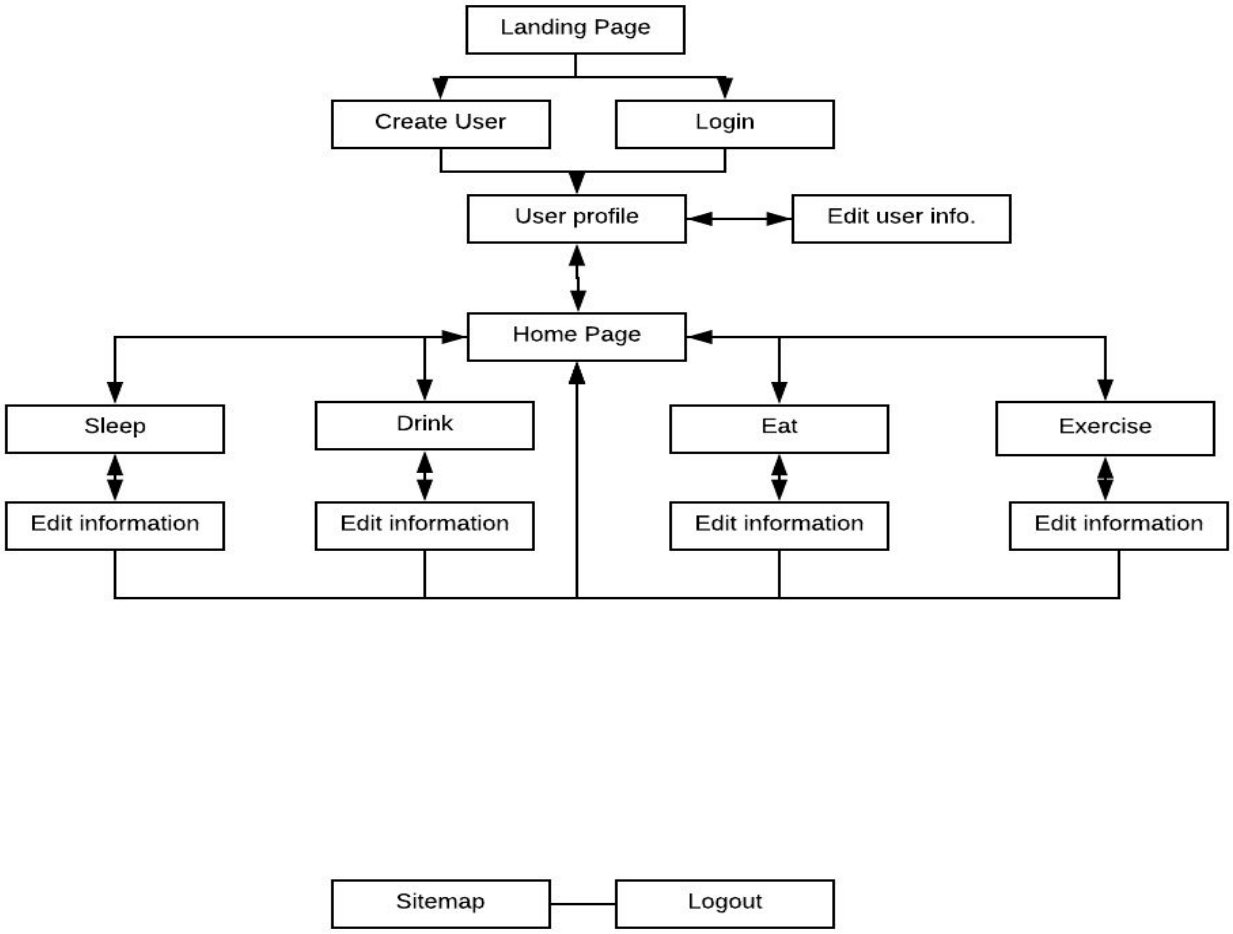
Front End Site Map:



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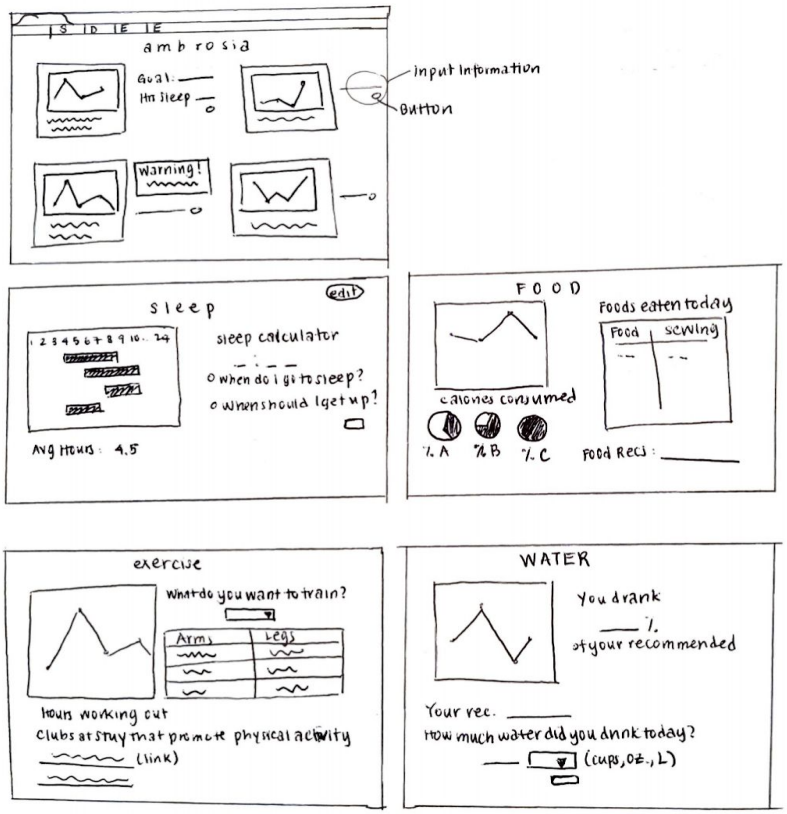

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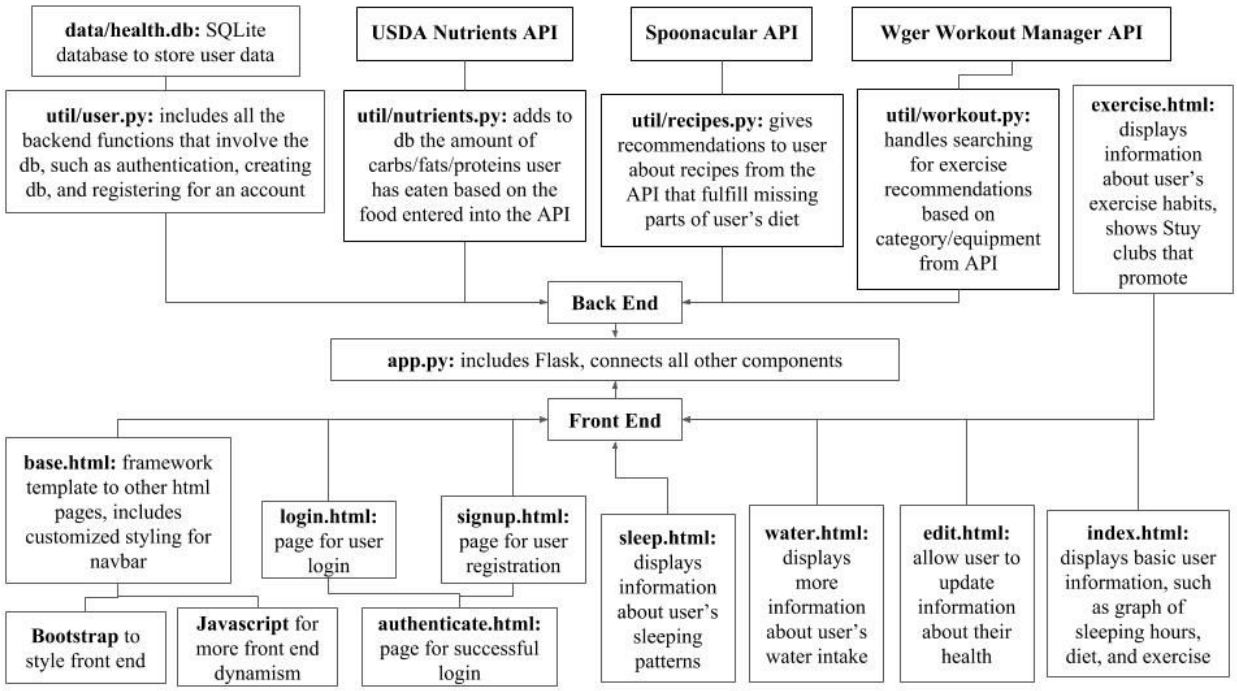
Component Map:



Breakdown of Tasks and Group Member Assignments, ordered in priority:

Project Manager: Rachel Ng

- miscellaneous coding tasks, frontend and backend
- Bootstrap + Jinja2 Templating
- Flask routing
- API implementation
- app.py

Front End: Ray Onishi

- Bootstrap + Jinja2 Templating
- Flask routing
- Pages:
    - base.html, index.html
    - signup.html, login.html, authenticate.html, edit.html
    - water.html, sleep.html, exercise.html, food.html
- app.py

Back End: Tina Wong, Maggie Zhao

- Database implementation
    - data/health.db
    - util/user.py

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- API implementation
    - data/apis.json
    - util/nutrients.py (USDA Nutrients)
    - util/recipes.py (Spoonacular)
    - util/workout.py (Wger Workout Manager)
- app.py

Ideal Timeline

	PM	Front End	Back End
	Work on all miscellaneous coding tasks throughout	Work on general design and app.py throughout	Work on util/user.py and and app.py throughout
1/08/19	Design document, 3 hard copies, begin any preliminary work **PM: Submodule linking (retrying with correct link)**		
1/09/19	Hardcopy latest design.pdf and devlog.txt, design (doc) changes highlighted	base.html, index.html signup.html, login.html, authenticate.html	data/health.db, util/user.py
1/10/19	Create requirements.txt wheel, flask, passlib, other pip installs	edit.html, water.html	util/user.py, data/keys.json, util/workout.py
1/11/19		sleep.html	util/workout.py
1/12/19		exercise.html	util/nutrients.py
1/13/19		exercise.html, food.html	util/nutrients.py, util/recipes.py
1/14/19		food.html	util/recipes.py
1/15/19	Due today! Finishing touches by 8:00 AM EST		