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)
- Use Bootstrap framework for front-end aesthetics

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- Javascript to provide front-end dynamism

Database Schema:

health.db

Users

id	username	hashed_password
INTEGER PRIMARY KEY	TEXT	TEXT

Basic_Information

id	user_id	height	weight
INTEGER PRIMARY KEY	INTEGER	REAL	REAL

Water

id	user_id	current_intake	expected_intake
INTEGER PRIMARY KEY	INTEGER	REAL	REAL

Sleep

id	user_id	01_hours	02_hours	03_hours	04_hours	05_hours	06_hours	07_hours
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER

Exercise

id	user_id	01_hours	02_hours	...	06_hours	07_hours	muscle_ group01	muscle_ group02	...
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER

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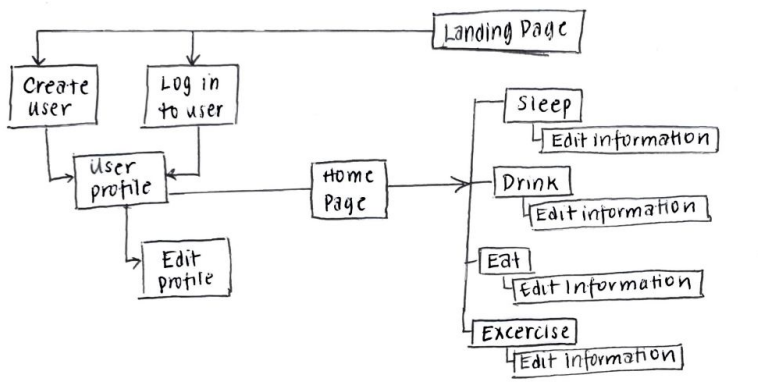
Diet

id	user_id	allergies	carbs	protein	fat
INTEGER PRIMARY KEY	INTEGER	TEXT	INTEGER	INTEGER	INTEGER

Expected_diet

id	user_id	expected_carbs	expected_protein	expected_fat
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER

Front End Site Map:



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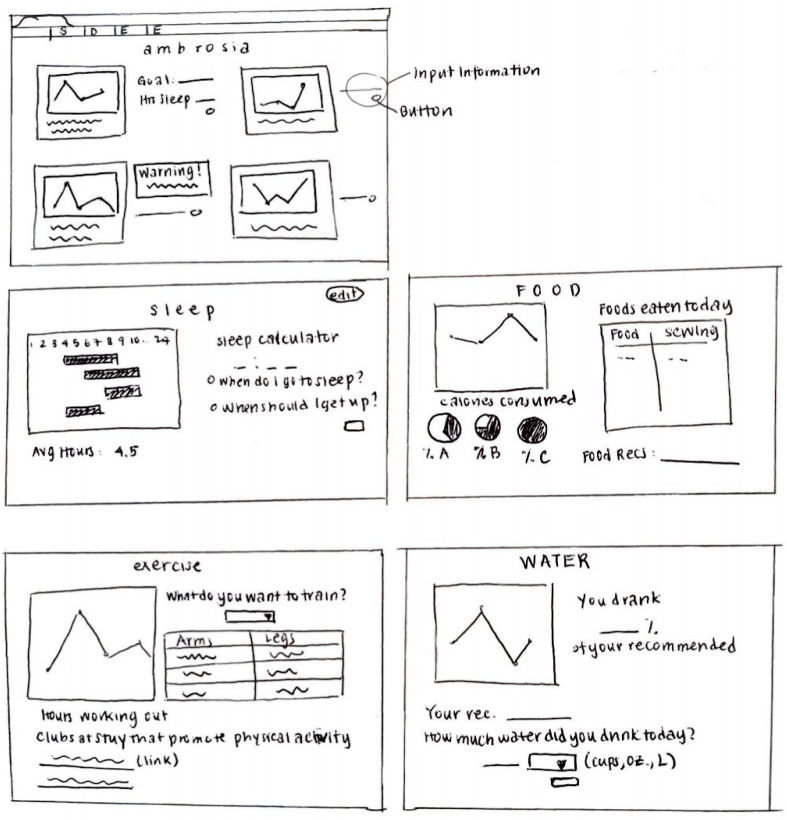

Component Map:

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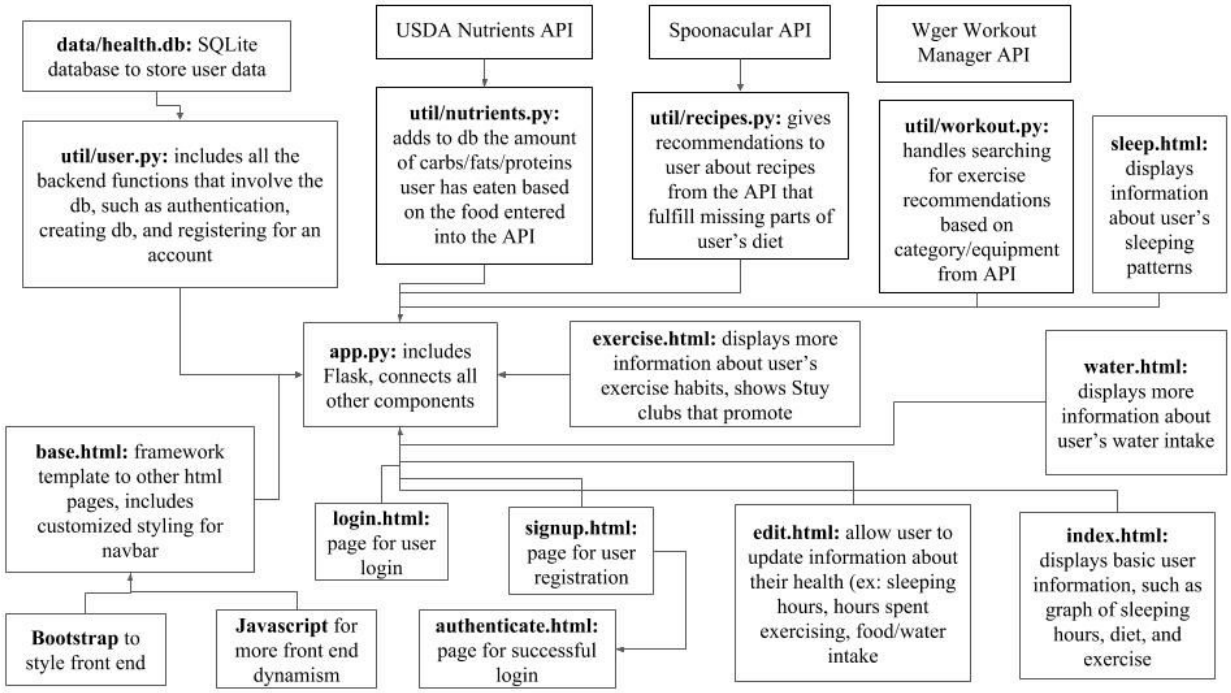

<u>Breakdown of Tasks and Group Member Assignments, ordered in priority:</u>

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

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