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

<u>Name:</u> Ambrosia

<u>Description:</u> 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, including the amount of daily calories, carbohydrates, fat, and protein, 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.

<u>List of Program Components:</u>
- 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
    - Proteins
    - Fats
  - Allow user to fill out forms to add information about their health
- When logged in, the user's goal and 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
  - User can set their own goal
- 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 Wger Workout Manager API to allow the user to search for exercise recommendations based on the category (ex: arms, legs, abs)
- 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)
  - Javascript to provide front-end dynamism

- ○ Plotly 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

Users

id	username	hashed_password
INTEGER PRIMARY KEY	TEXT	TEXT

basic_info

user_id	goal	age	height	weight	allergies	dietary_restritions	expected_calories	expected_carbs	expected_protein	expected_fat
INTEGER	TEXT	INTEGER	REAL	REAL	TEXT	TEXT	INTEGER	INTEGER	INTEGER	INTEGER

Water_Log

user_id	year	month	day	week_start_day	intake_01	...	intake_07
INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	REAL	REAL	REAL

updated directly through form on webpage

Sleep_Log

user_id	year	month	day	week_start_day	start_01	hours_01	...	start_07	hours_07
INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER

updated directly through form on webpage

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

Exercise_Log

user_id	year	month	day	week_start_day	hours_01	...	hours_07	target_muscle_group_01	...	target_muscle_group_07
INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	TEXT	TEXT	TEXT

updated directly through form on webpage

Food_Log

user_id	year	month	day	hour	minute	meal	amount	calories	carbs	protein	fat
INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	TEXT	REAL	INTEGER	INTEGER	INTEGER	INTEGER

updated directly through form on webpage

Weekly_Diet

id	user_id	year	month	week_start_day	calories_01	carbs_01	protein_01	fat_01	...	fat_07
INTEGER PRIMARY KEY	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER	INTEGER

`weekly_diet (year, month, day, user)` - update `weekly_diet` table with info from the `food_log` table
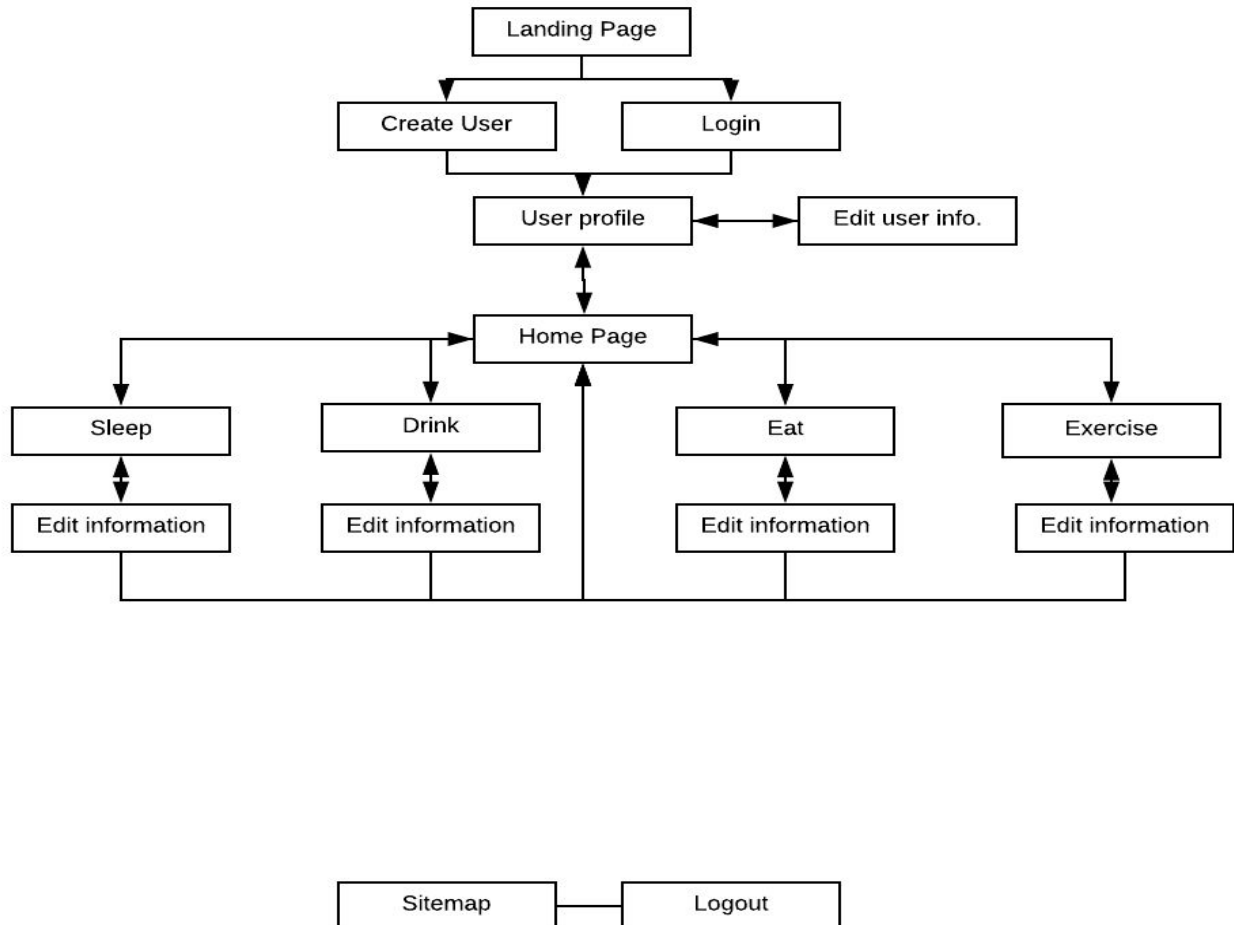
Team group d'etat
P02 - The End
SoftDev1 pd7
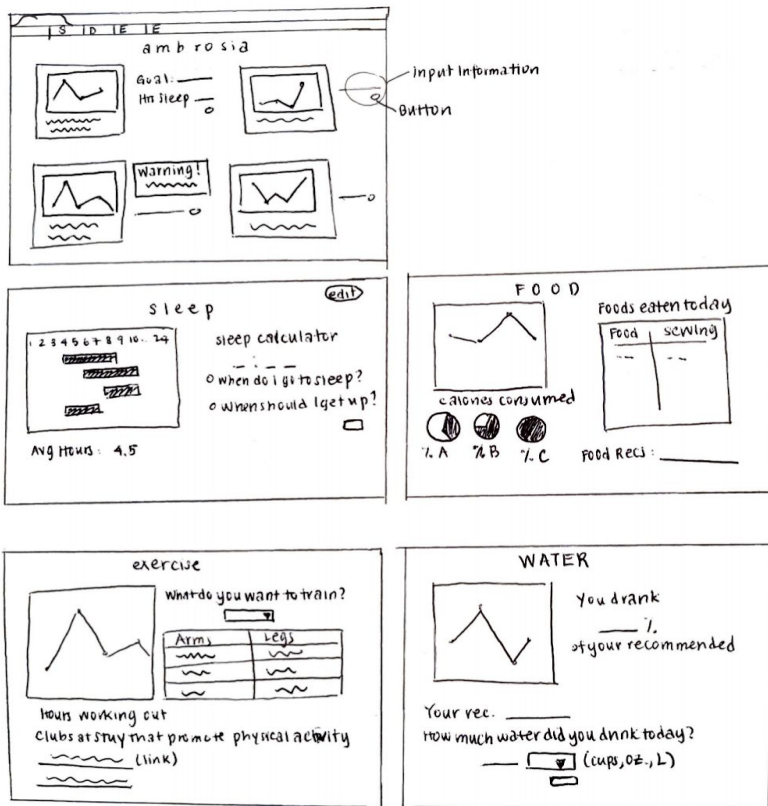Rachel Ng, Ray Onishi, Tina Wong, Maggie Zhao

Front End Site Map:

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

ambrosia screen:
- Goal: ___
- Hrs sleep: ___
- Input Information
- Button
- Warning!

sleep screen (edit):
- 1 2 3 4 5 6 7 8 9 10 .. 24
- sleep calculator
  - o when do I go to sleep?
  - o when should I get up?
- Avg Hours: 4.5

FOOD screen:
- Foods eaten today
  - Food | serving
- calories consumed
  - % A   % B   % C
- Food Recs: ___

exercise screen:
- What do you want to train?
  - Arms | Legs
- Hours working out
- Clubs at stuy that promote physical activity ___ (link)

WATER screen:
- You drank ___ % of your recommended
- Your rec. ___
- How much water did you drink today? ___ (cups, oz., L)
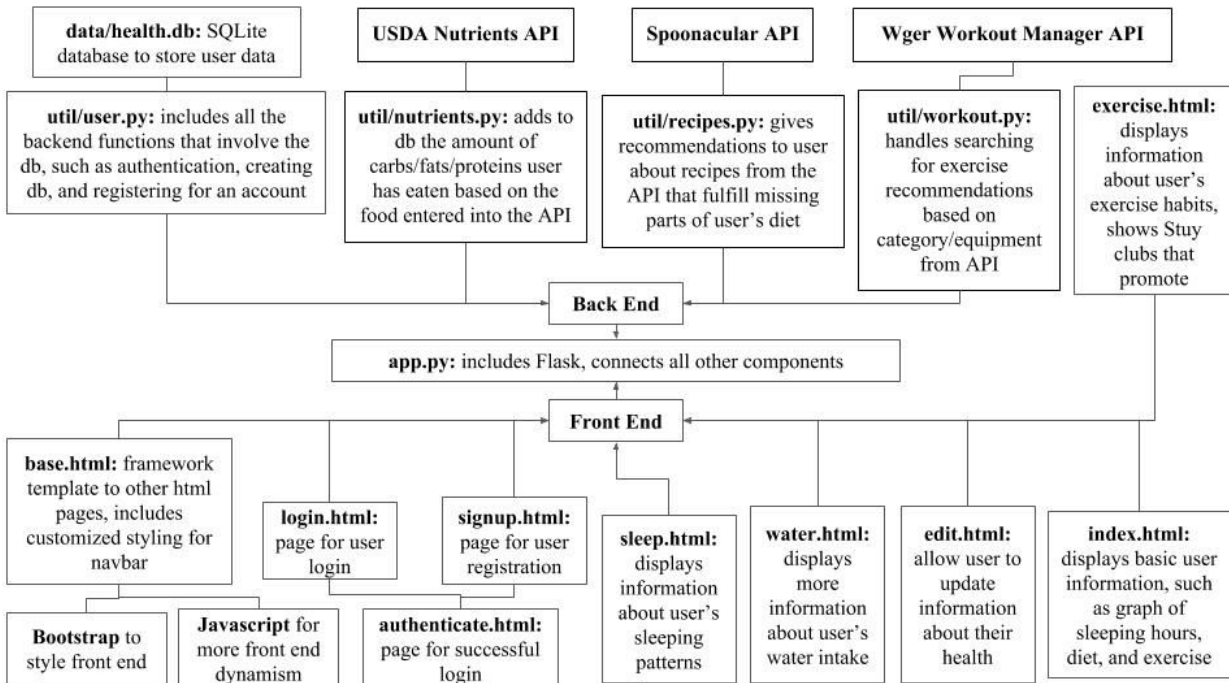
```
Team group d'etat
P02 - The End
SoftDev1 pd7
```
Rachel Ng, Ray Onishi, Tina Wong, Maggie Zhao

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

- API implementation
    - keys/apis.json
    - util/nutrients.py (USDA Nutrients)
    - 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 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		edit.html, water.html	util/user.py, util/water.py, util/sleep.py, util/exercise.py, util/food.py
1/11/19	Create requirements.txt wheel, flask, passlib, other pip installs	sleep.html	util/sleep.py, util/exercise.py, util/food.py
1/12/19	plotly_charts.py	exercise.html	util/exercise.py, util/food.py
1/13/19		exercise.html, food.html	util/exercise.py, util/food.py
1/14/19		food.html	
1/15/19			
1/16/19			
1/17/19	Due today! Finishing touches by 8:00 PM EST		
1/18/19	Demo Video Due 8:00 AM EST		