Dark Lord Chuckles The Silly Pig: Thomas Zhang, Lauren Lee,
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SoftDev Pd 7
P04 -- Data
2023-04-28

Target Ship Date: 2023-05-23

Idea:
- Based on user input, determine the probability of the user getting a stroke or lung disease
- Visualize the user's probabilities of stroke and lung disease using line charts
- Provide recipes for users trying to create a diet plan

Files Needed:
- <u>HTML Files:</u>
  - register.html
  - login.html
  - home.html
  - questionnaire.html
    - Health questions the user can answer (forms should avoid text response for easier matching with data sets) – questions can be option-based to determine what information is considered
      - Questions such as age, gender, health habits
  - results.html
    - Shows your inputted info
    - Displays health results in line graphs
      - Graphs represent the probability of the user being diagnosed with a stroke or lung cancer over time based on health results
      - User can select which factors to account for
  - recommendations.html
    - Enter an ingredient and receive recommendations for food
      - includes links to recipes

- CSS Files:
  - style.css
    - Extra CSS if needed

- JS Files:
  - script.js
    - used chart.js for visualizations
    - Controls how the user interacts with the page

- Python Files:
  - heart.py, lung.py
    - Uses the questionnaire information to display the probability of being diagnosed with a stroke or lung cancer
      - Will use pandas to manipulate data
  - __init__.py
    - Flask app

- SQLite Database:
  - userinfo.db

User	Password
darkLord	sillyPig

  - stroke.db

id	gender	age	disease	bmi	status	stroke
1	Male	15	yes	20	never smoked	4.73

  - stroke_question.db

user	name	height	weight	sex	age	heart	smokes

darkLord	Chuckles	40	80	Male	15	0	never smoked

- ○ lung.db

id	age	gender	airpollution	alcohol use	smoking	text
1	15	male	4	8	7	medium

- ○ lung_question.db

user	name	height	weight	sex	age	alcohol	pollution	smokes
darkLord	chuckles	40	80	1	15	4	4	4

- ○ food.db

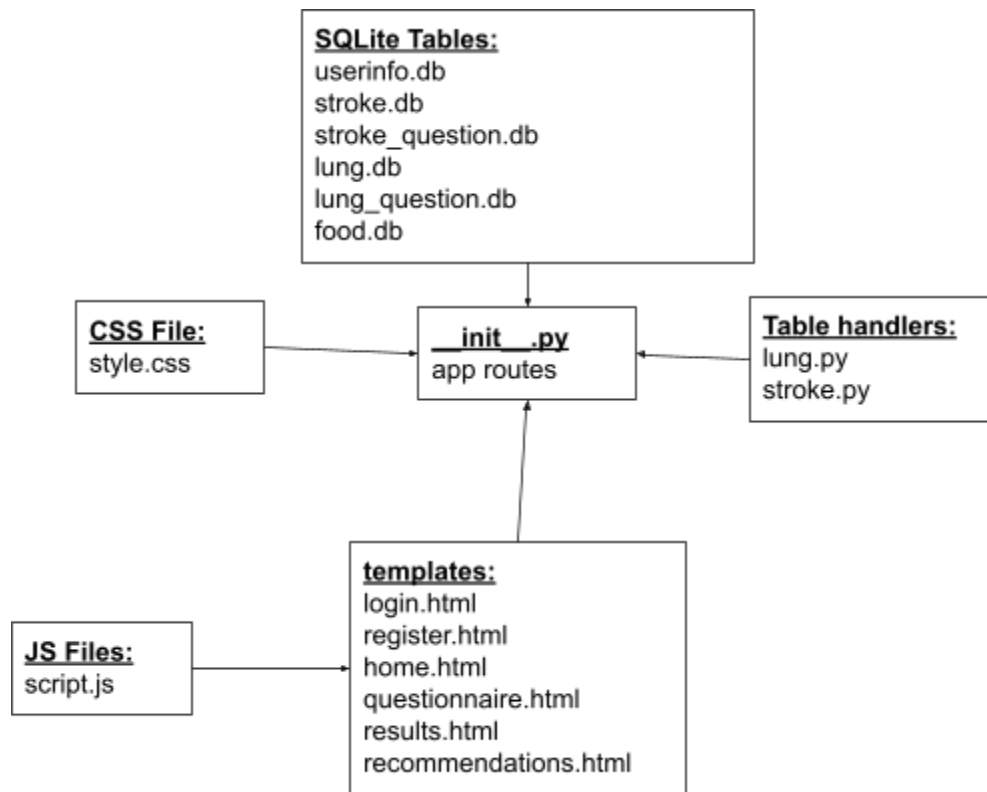| user	label	calories	mealtype	cuisine type	url	image
darkLord	chicken	1000	breakfast	american	chicken recipe.com	image

- ● API Files:
  - ○ Recipes API
    - ■ Give user a specific type of diet such as high-protein
    - ■ Restrictions such as vegetarian and gluten free
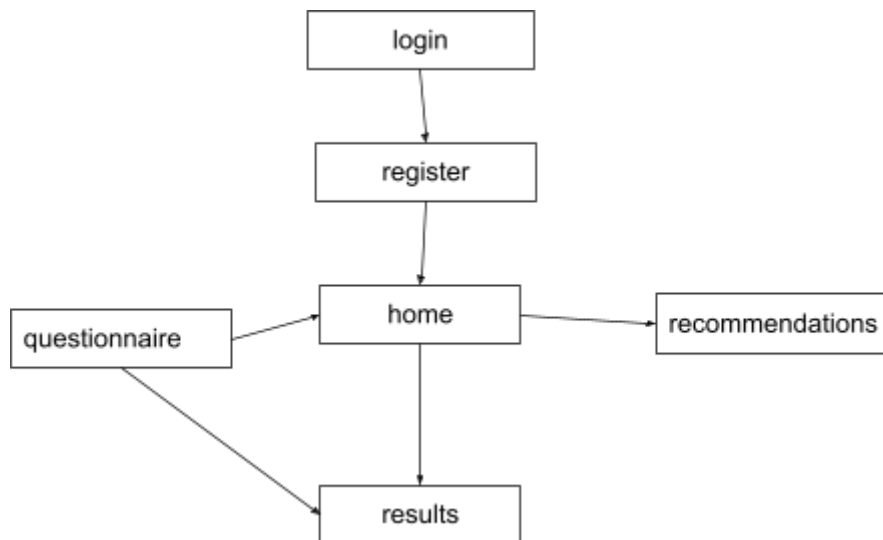   - ■ Range of calories

Front End Framework: Bootstrap
- ● Intend to incorporate bootstrap cards
- ● Bad experience with Foundation last project

Component Map:

```
SQLite Tables:
userinfo.db
stroke.db
stroke_question.db
lung.db
lung_question.db
food.db
```

```
CSS File:
style.css
```

```
__init__.py
app routes
```

```
Table handlers:
lung.py
stroke.py
```

```
JS Files:
script.js
```

```
templates:
login.html
register.html
home.html
questionnaire.html
results.html
recommendations.html
```

Site Map:

```
login
  ↓
register
  ↓
questionnaire → home → recommendations
  ↓              ↓
results ←────── results
```

Tasks:

- ☑ ~~Login Page (Thomas, Diana)~~
  - ☑ ~~Create Account/Registration Page~~

- ☑ ~~Login Page/Authentication~~
- ☑ ~~Home Page (Diana)~~
- ☐ Questionnaire Page (Lauren, Diana)
  - ☑ ~~Stroke Questionnaire~~
    - ☑ ~~Text: Name~~
    - ☑ ~~Number: Height~~
    - ☑ ~~Number: Weight~~
    - ☑ ~~Radio: Sex~~
    - ☑ ~~Number: Age~~
    - ☑ ~~Radio: Have you ever had a heart disease?~~
    - ☑ ~~Radio: Have you ever smoked before?~~
  - ☐ Lung Cancer Questionnaire
    - ☑ ~~Text: Name~~
    - ☑ ~~Number: Height~~
    - ☑ ~~Number: Weight~~
    - ☑ ~~Radio: Sex~~
    - ☑ ~~Number: Age~~
    - ☑ ~~Range: How would you rate your alcohol intake on a scale of 1-8 (1 = nondrinker, 8 = chronic drinker)?~~
    - ☑ ~~Range: How would you rate the air pollution of your living environment (1 = no pollution, 8 = severe pollution)?~~
    - ☑ ~~Range: How would you rate your smoking level from 1-9 (1 = nonsmoker, 8 = chronic smoker)?~~
- ☑ ~~Results Page (Thomas, Lauren, Diana)~~
  - ☑ ~~Determining BMI~~
  - ☑ ~~Questionnaire form to SQLite table~~
  - ☑ ~~Stroke Graph:~~
    - ☑ ~~Integrate Stroke Prediction Dataset~~
    - ☑ ~~Display results as a graph visualization~~
  - ☑ ~~Lung Cancer Graph:~~
    - ☑ ~~Integrate Lung Cancer Prediction Dataset~~
    - ☑ ~~Display results as a graph visualization~~

- ☑ ~~Recommendations Page (Diana)~~
    - ☑ ~~Determining diet recommendations~~
        - ☑ ~~Integrate EDAMAM Recipe API~~
        - ☑ ~~Display food as Bootstrap cards~~
- ☑ ~~CSS - Make everything look nice and snazzy :D~~

APIs:
- [EDAMAM Recipe API](#)

Dataset:
- [Stroke Prediction Dataset](#)
- [Lung Cancer Prediction Dataset](#)

Ted Tools to Use:
- Pandas

Stretch Goals:
- Utilize the Google Calendar API to create a custom diet/exercise calendar for each user