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SoftDev

Period 7

2022-05-24

Target Ship date: 2023-05-24

Restaurant Surfer

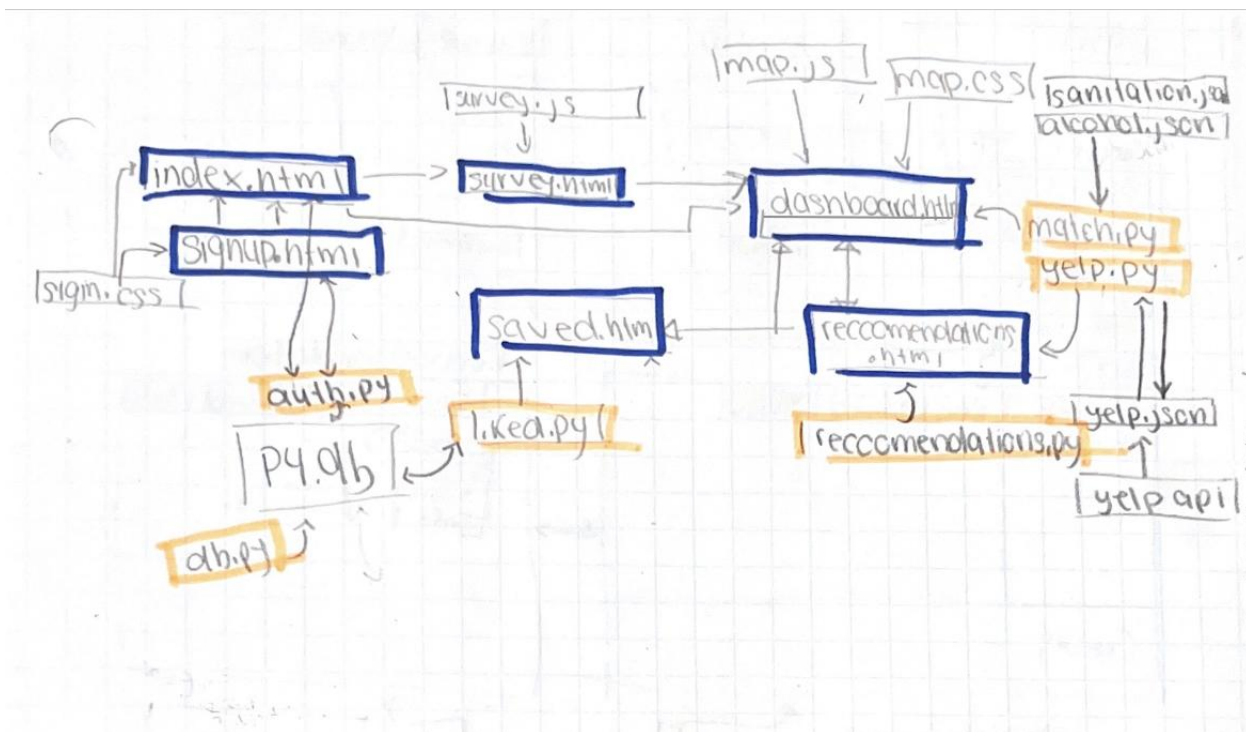
**Program Components:**

- app/
  - templates/
    - index.html
      - Allows users to login using correct credentials by matching them from the database
      - Sign in button to sign in with inputted username and password
      - Sign up button to go to sign up page
    - survey.html
      - Allows users to list preferences, so we can later provide personalized display of restaurants
      - Asks for preferred type of food (can select as many as desired), the user's location, whether the user orders alcohol, the minimum sanitation grade restaurants can have, and the user's dietary restrictions (can select as many as desired)
      - Submit button updates the user's preferences in the preferences table of the database
    - dashboard.html
      - Header with site name and buttons to go to home page, recommendations page, or saved restaurants page
      - Map using Google Maps
      - Filters like food category and other tags.
      - Clicking submit button will mark restaurants on the map that fit the selected filters
      - Clicking on a restaurant on the map will display more information about the restaurant, such as its full name, address, stars on Yelp, kinds of foods served, cost, whether deliver and pickup are available, a photo of the restaurant, and a save button to add it the user's saved list of restaurants
  - saved.html
    - Displays user's saved restaurants
  - recommendations.html

- Recommended page to show a list of restaurants based on restaurants the user's data and preferences
- signup.html
  - Allows users to register for an account by entering a unique username and a password
  - Create user button to create an account with the inputted username and password
  - Sign in button to return to login page
- databases
  - alcohol.json
    - Dataset that contains data of restaurants in NYC that can legally serve alcohol
  - sanitation.json
    - Dataset that contains sanitation grades and violations of NYC restaurants
  - yelp.json
    - pulled using yelp API (necessary due to limits with calls)
    - contains restaurant name, boolean values for each category, address, rating, price, image url, delivery status, and takeout status
- \_\_init\_\_.py
  - Runs app
  - Connects to html files using routes
  - Use functions from other python files
- db.py
  - Connects to P4.db
  - Allows database access through query\_db
- auth.py
  - Deals with users and preferences tables from database
- match.py
  - Places all data in desired format and optimizes database
- liked.py
  - Deals with liked\_rest table that contains like restaurants lists of users
- recommendations.py
  - Uses algorithm to suggest restaurants based on user's data
- yelp.py
  - Parses through Yelp API and gets data using Pandas
- static/
  - css/
    - sign-in.css
      - Styles login and sign up pages

- map.css
  - Styles the map on dashboard
- js/
  - map.js
    - Javascript to use Google Maps API for map on dashboard
  - survey.js
    - Javascript to display surveys on survey page
- keys/
  - API keys
- P4.db
  - Contains users and preferences tables

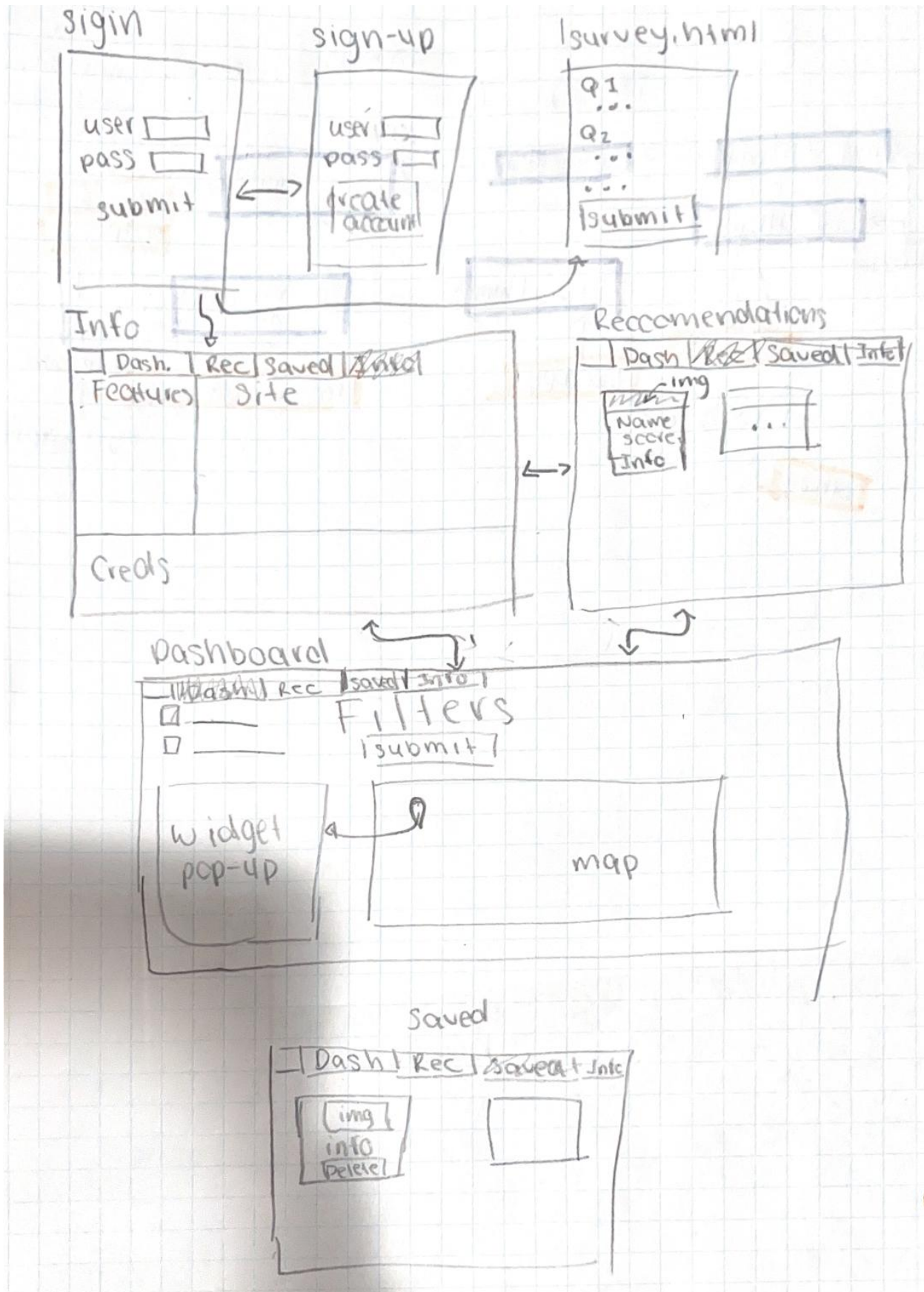
## Component Map



## Relation Between Components

- Login and registration pages create accounts with their own restaurant lists and preferences
- Survey for what users like in restaurants to recommended restaurants
- Allows users to save restaurants to a list
- Display information about restaurants
- Map displays filterable restaurants
- In the map, users can select a set of restaurants to save to a list.

## Site Map



## APIs

- Embedded Google Maps API (subject to change)
  - <https://developers.google.com/maps/documentation/embed/get-started>
- Yelp API
  - <https://fusion.yelp.com/>

## Table Structure

- users TABLE
  - username TEXT PRIMARY KEY
  - password TEXT
- preferences TABLE
  - name TEXT
  - address TEXT
  - alcohol BOOL
  - sanitation INT
- liked\_rest TABLE
  - id INTEGER PRIMARY KEY AUTOINCREMENT
  - username TEXT
  - rest\_name TEXT
- yelp DATAFRAME - acquired through storing data from api calls stored in yelp.json then manipulating with pandas
  - name STR
  - address STR
  - formatted\_address STR
  - neighborhood STR
  - categories\_clean LIST
  - Img\_url STE
  - rating FLOAT
  - price STRING
  - price\_value FLOAT
  - latitude FLOAT
  - longitude FLOAT
  - delivery BOOL
  - pickup BOOL
  - state STR
  - city STR
  - zip\_code INT
  - [each individual category] BOOL

## Databases Used

- Active and pending alcohol permits - JSON: <https://sla.ny.gov/public-query>
  - Active alcohol permits
    - Premise name
    - Method of operation
- Sanitation inspection grades:  
<https://data.cityofnewyork.us/Health/Restaurant-Grades/gra9-xbjk/data>
  - Inspection Results
    - DBA
    - Violation description
    - Grade

## Front End Framework

Using JS and potentially Node.js to provide easy interactivity with the page for the user.

- JS: interaction with user
  - Event listeners
  - Events
  - Functions
- Bootstrap

## Tasks

- Front End Design (JS, Bootstrap) - Abid, Kevin
- Database Work - Jeffery, Elizabeth
- Flask - Kevin, Jeffery
- API - Elizabeth, Abid