Ample Examples by Team Joe Cubed

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P3

Description: A website to contain lists about topics, meant to serve as creative inspiration. Users can log in to favorite items on lists as well. Currently only two lists are implemented, one about dog breeds and one about tropical fruits and vegetables. There is also a random image generator in case you know your topic but need an image for it.

Project Timeline

DUE 4/29/21

Requirements (4/25):

- Login features (4/22)
- API implementation and lists (4/23)
- Favorite features (4/24)
- Styling and JS (4/25)

Additional Features (4/27):

- Flairs (4/26)
- More lists (4/27)
- Password hashing (4/27)
- Searching? (4/27)

Components

- SQLite Database
  - Two user-related tables
    - One meant for logging in that contains username, user id, and password
    - One meant for storing all of the users' favorited list items
  - Multiple tables containing topic contents
    - One table per topic, containing entry name, id, picture, description, etc
- Flask (app/__init__.py)
  - Serves as the middleman between the database and templates and between the APIs and the user
  - All information being sent/received by the database, templates, APIs, and the user will pass through the application.
- HTML templates (app/templates)
  - login.html
    - Displays the login form for users to log in
  - register.html

- Displays the registration form for users to register
    - error.html
        - A general error form for 400, 404, and 405 errors.
    - home.html
        - JavaScript will be used to modify the visibility of login/profile buttons
    - generic_list.html
        - JavaScript will be used to tailor the template for each list
    - profile.html
        - Displays the favorited lists and items for the user
    - random.html
        - Displays a series of random images in HTML for the JavaScript to load
- CSS (app/static/css)
    - Contains CSS for all HTML templates to use
- Foundation
    - Improves the design of the website and the capabilities of the CSS
- JavaScript (app/static/js)
    - Send requests without reloading the page
- RESTful APIs used:
    - DogCEO:
      https://github.com/stuy-softdev/notes-and-code20-21/blob/master/api_kb/411_on_DogCEO.md
    - TropicalFruitandVeg:
      https://github.com/stuy-softdev/notes-and-code20-21/blob/master/api_kb/411_on_TropicalFruitandVeg.md
    - MediaWiki:
      https://github.com/stuy-softdev/notes-and-code20-21/blob/master/api_kb/411_on_MediaWikiAPI.md
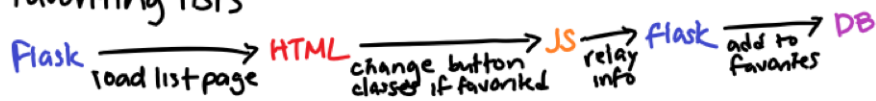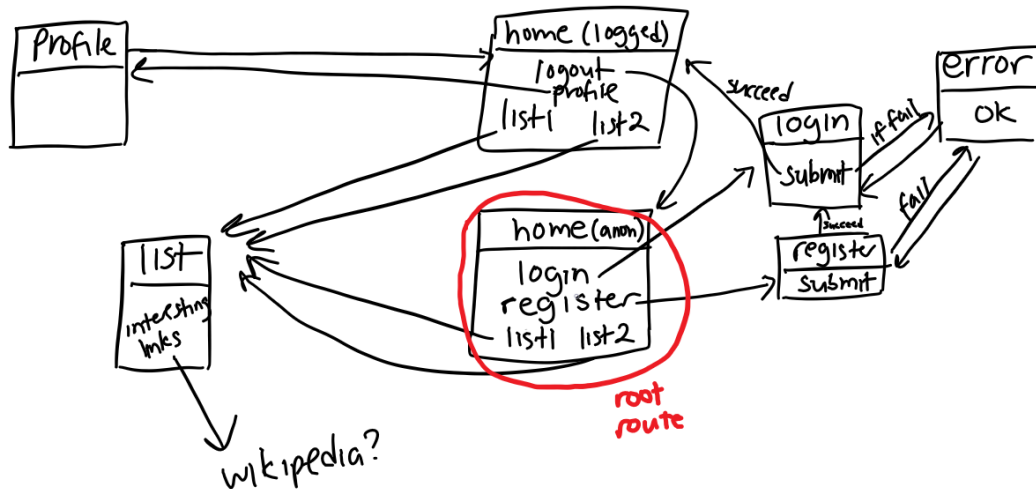
Component Visualization

Logging in

Flask →(load login page) HTML →(collect login input) Flask →(check info) DB → Flask →(load error/home) HTML

Fetching lists

Flask →(check update periodically) API → flask → DB → flask →(load list pages) HTML

Creating accounts

Flask →(load page to create account) HTML →(collect input) flask →(add entry) DB

Favoriting lists

Flask →(load list page) HTML →(change button classes if favorited) JS →(relay info) flask →(add to favorites) DB

Site Map

(Note: favorited items are viewed in the profile)

Database Organization

This table stores all users created and their password, meant for login authentication.

users		
username	password	ID

TEXT	TEXT	INTEGER primary key
joeNathan	joejoejoejoejoe	0

This table stores all favorited items from all lists across all users.

favorited			
userID	listID	itemID	ID
INTEGER	TEXT	INTEGER	INTEGER primary key
0	fruit	0	0

This table stores all entries across all lists, as well as which list they came from.

lists					
title	picture	descriptions	flairs	listID	ID
TEXT	TEXT	TEXT	TEXT	TEXT	INTEGER primary key
Pomegranate	https://solidstarts.com/wp-content/uploads/Pomegranate-Edited-scaled.jpg	The pomegranate (Punica granatum) is a fruit-bearing deciduous shrub in the family Lythraceae	berry	fruits	0

Tasks and Assignments
- Ian Chen-Adamczyk (Project Manager)
  - API, Flask, HTML, JavaScript, Markdown
- Eric Lo
  - Bootstrap, DB, Flask, HTML, JavaScript
- Michelle Thaung
  - Bootstrap, DB, HTML

- Jessica Yeung
  - API, CSS, Flask, HTML

Folder Organization

- app/
    - __init__.py
    - api.py
    - db.db
    - dbmanager.py
    - dbsetup.py
    - static/
        - css
            - styles.css
        - js
            - scripts.js
    - templates/
        - login.html
        - register.html
        - error.html
        - home.html
        - generic_list.html
        - profile.html
    - keys/
        - readme
        - key_api0.txt
        - key_api1.txt
        - key_api2.txt
- design.pdf
- devlog.txt
- flag.jpg
- README.md
- requirements.txt