

P01 - ArRESTed Development - Global Bites
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Pd. 5
TARGET SHIP DATE: {2024-12-15}

Overview: Global Bites is an interactive and immersive website that showcases traditional recipes for global holidays. Users can explore holidays worldwide, find associated recipes, and view high-quality food images for inspiration. The site features an interactive world map where users can click on countries to discover popular holidays, traditional dishes, cultural customs, and fun facts. Additionally, users can create accounts to save favorite recipes, share experiences, and engage with a community of global food enthusiasts.

Program Components:

Front-End Framework (FEF): Tailwind CSS

Backend Framework (BEF): Flask (Python)

Database: SQLite3

RESTful APIs:

- Calendarific API - Looks for upcoming holidays to “suggest” specific recipes.
- Spoonacular API - Provides recipe data based on various criteria
 - Search Recipes
 - Search Recipes by Nutrients
 - Search Recipes by Ingredients
- Unsplash API - Supplies high-quality images for recipes and ingredients.
- GoogleMaps API - Adds location-based functionality, mapping services, and geolocation capabilities into their websites, mobile applications, and other digital platforms.

Component Relationships:

Flask ↔ Python Middleware

- Flask routes user requests to the middleware, which processes data and returns responses.

Python Middleware ↔ SQLite

- Middleware queries and updates the database as needed.

HTML/CSS ↔ Flask

- The front end sends requests to Flask and displays data received from it.

Flask ↔ APIs

- Flask and middleware handle API calls to external services.

Component Map:

[User Interface]



[Front End (HTML/CSS/JS)]



[Flask Application]

↔
[Python Middleware]

↔
[SQLite Database]

↔
[External APIs]

Website Pages:

Home Page ('/home')

- Highlights upcoming holidays with featured recipes.-
- Showcases user achievements and popular community posts.

Explore Map ('/map/')

- Interactive world map to select countries and view related content.

Search Page ('/search')

- Advanced filters (cuisine, ingredients, dietary restrictions, difficulty level).

Recipe Page ('/recipes')

- Detailed recipe instructions, nutritional info, user comments, and ratings.

User Profile ('/user')

- Displays saved recipes, badges earned, cooking history, and personal notes.

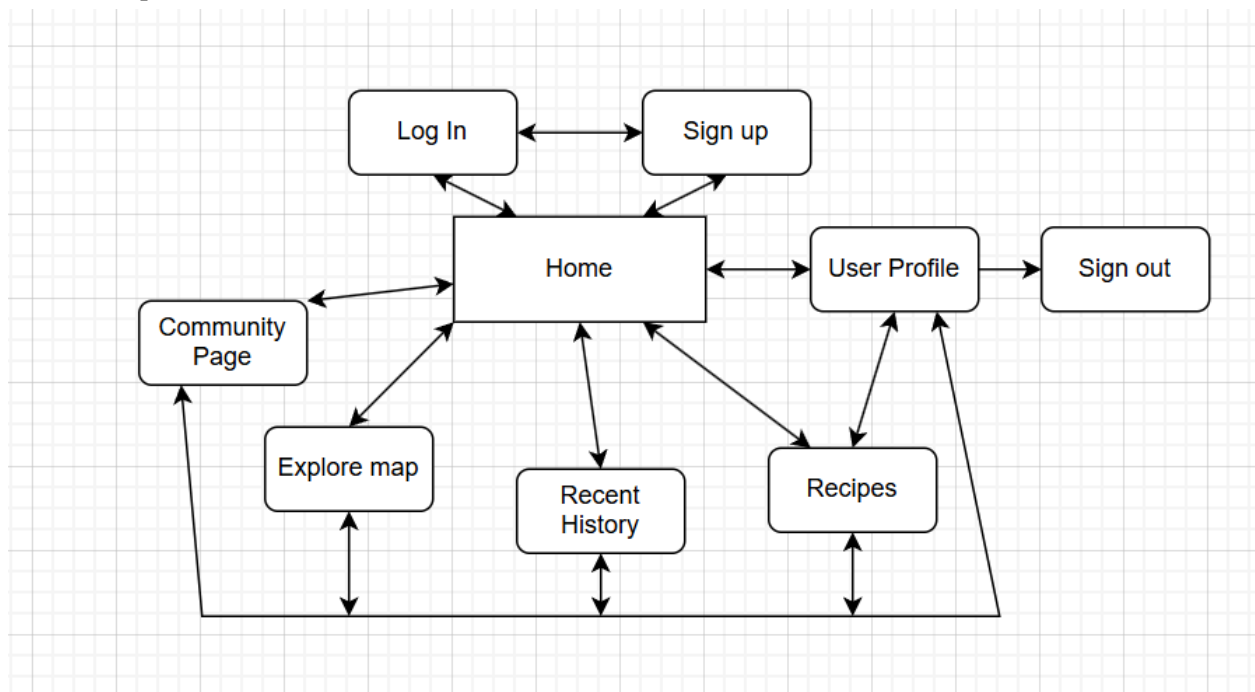
Community Hub ('/community')

- Forums, user-shared recipes, cooking challenges, and events.

Login/Signup Page ('/login' & '/register')

- User authentication and account creation.

Website map:



Database Organization:

Users user_id (primary key) username password_hash join_date badges	Recipes recipe_id(primary key) title ingredients instructions cuisine image_url
Comments comment_id (primary key) user_id (foreign key) recipe_id (foreign key) text timestamp	Badges badge_id(primary key) badge_name description icon_url

Site Map:

<div><h3><u>Home (Page name)</u></h3><div>Home Searches Recents Log In/Out</div><div><div>Login Sign-up</div><div>Upcoming Holidays (and recipe list)</div></div></div>	<div><h3><u>Search</u></h3><div>Home Searches Recents Log In/Out</div><div><div>Search Bar [Filter icon]</div><div>Recipe list</div></div></div>
<div><h3><u>Recent</u></h3><div>Home Searches Recents Log In/Out</div><div><div>Recent -abc -xyz</div><div>Suggested -12143 -324324</div></div></div>	

WHY TAILWIND?

We are using Tailwind CSS because:

- Allows rapid styling without writing custom CSS.
- Easy to create designs that work on all devices.
- Highly customizable to fit the project's unique needs.
- Works seamlessly with modern JavaScript frameworks and libraries.

We plan to make use of:

- To ensure the site looks good on all screen sizes.
- Build reusable components for buttons, cards, and forms.
- Enhance user experience with smooth interactions.

API USAGE DETAILS

- **Calendarific API**
 - Used to fetch upcoming holidays based on date and country.
 - Suggest recipes related to these holidays.
- **Spoonacular API**
 - Obtain detailed recipe data.
 - Use filters for dietary restrictions and ingredient availability.
- **Unsplash API**
 - Fetch high-quality images for recipes and backgrounds.
 - Enhance visual appeal of the site.
- **Google Maps API**
 - Create an interactive world map.
 - Allow users to select countries and view associated content.

Task Designations:

Button-Mashing, Feature-Wrangling, and Making Sure Everything Actually Works: Ben
Database Whisperer (and Chief Leak Plugger): Tiffany
CSS Sorcery and Stylin' Shenanigans: Endrit
Flask Mastery (a.k.a. Server Wizardry): Tim + Ben