Cut N Pasta

Group 4

Team

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Cut’n’Pasta - Vision

Ever felt like you have too many pdf recipes on your computer taking up space? Tired of scrolling through someone's entire origin story just to get to your pork shoulder recipe? It's time to Cut’n’Pasta that recipe into your own personal recipe database. Plan out your recipes ahead of time and turn it into a shopping list. View just the recipes and remove those annoying backstories when you just want to eat.

CUT N PASTA

View All Recipes

Perfect Pot Roast

Add to Favorites | Add to Shopping Cart

Ingredients

1. 4 pounds boneless chuck roast, excess fat trimmedKosher salt and freshly ground black pepper, to taste
2. 2 tablespoons canola oil
3. 1 medium sweet onion, cut into 1-inch wedges
4. 2 tablespoons tomato paste
5. 4 cloves garlic, minced
6. 1 cup dry red wine*
7. 1 cup beef stock
8. 3 large carrots, cut into 3-inch pieces
9. 8 ounces cremini mushrooms
10. 4 sprigs fresh thyme
11. 1 sprig fresh rosemary
12. 1 ½ pounds small Yukon gold potatoes
13. 2 tablespoons chopped fresh parsley leaves

Tools Used

- Trello : project management
- Github : version control
- Diagram.io : database design
- Figma : site design
- FontAwesome : site design
- Postgres : database
- Render : cloud database
- Unittest : testing
- Render : deployment environment

- Programming Languages and Frameworks
  - Backend Execution
    - Python
    - Bash
    - SQL
  - Frontend Design/Implementation
    - Flask
    - CSS
    - HTML
    - Javascript
- Code Editors
  - Gvim/Vim
  - Visual Studio
  - JupyterHub

Trello

- Project task tracking
- Easy to set up
- Easy to use
- Felt separated from rest of system
- Upfront and continuous input to be used effectively
- Overall basic and okay
- Better tools with more integration exist

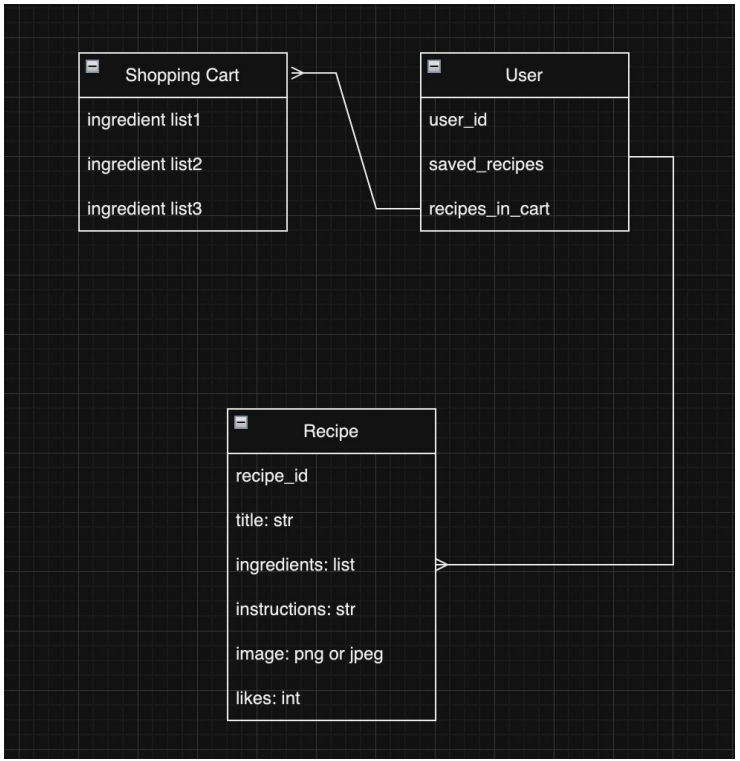
Github and Git

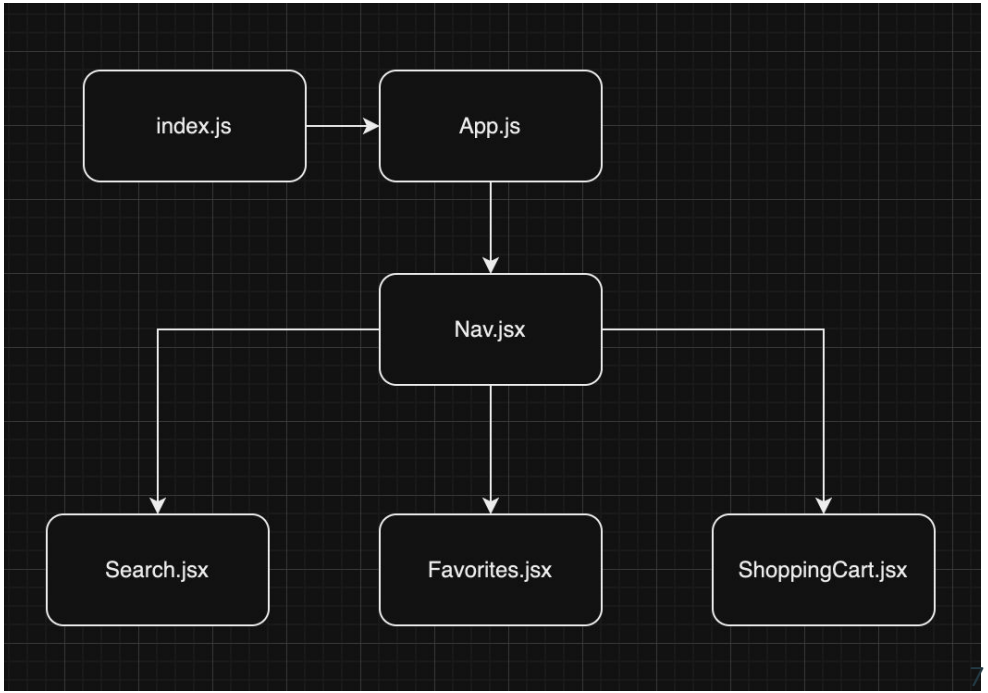
- Github is great for storing codebase
- Relatively easy to use
- Has lots of nice features
- Clear why Github is commonly used for public code-storage
- Integrated Project Environments options exist

- Git is great..for more experienced people
  - Magic for beginners
- Lifesaver for change tracking
- Could have been used better with more branching per issue
- Powerful tool common to industry for tracking

Diagram.io

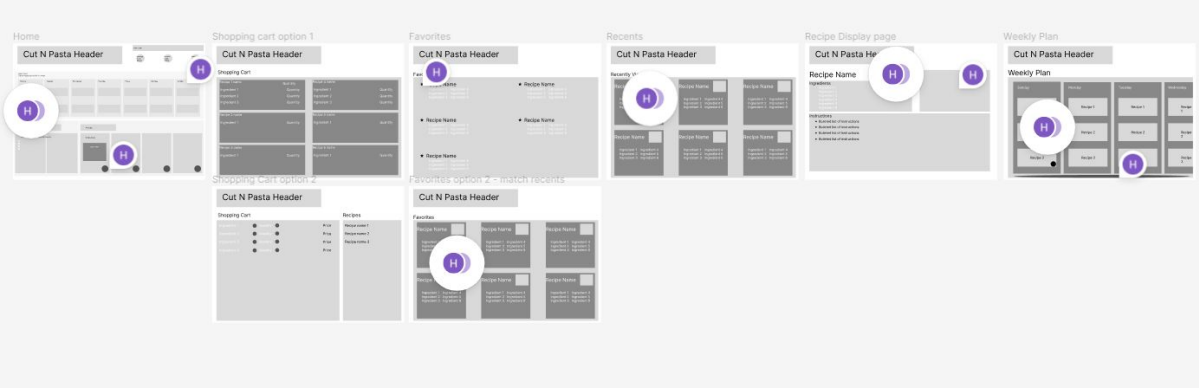
A great tool for creating Entity Relationship Diagrams (ERDs) and Component Hierarchy Diagrams





Figma

- Free tool that allows for streamlining the design process for web pages
- Brainstorm web page design ideas
- Generate wireframe drafts for web page design
- Allows comments and interaction from all members of the team
- Exploration of layouts for different displays



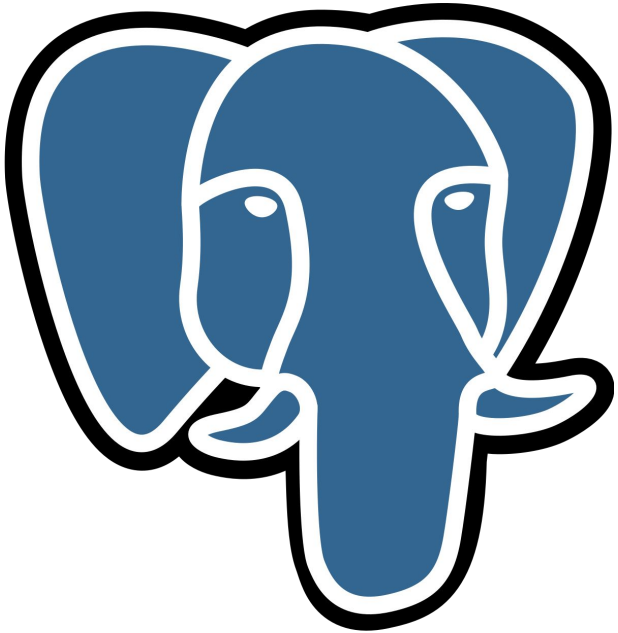
PostgreSQL and psycopg2

PostgreSQL

- Open source relational database management system
- Active community provides user support and documentation
- User friendly for simple table and database creation with SQL

Psycopg2

- Most popular PostgreSQL database adapter for the Python
- Easy installation and implementation
- Great quickstart documentation



Render - Database Hosting

Overview

- A scalable, managed, platform for cloud based database hosting
- Options for automatic backups and transaction history

Use

- Hosting PostgreSQL database for the project

Advantages

- Cloud hosting allowed for team to all make changes to the same database
  - Did not have to worry about local database updates or changes
- Free option
- Integration with Render's web hosting platform (discussed later)
- Great documentation

Python Unittest

Overview

- Built-in unit testing framework for Python
- Used for writing and executing test cases to validate functionality

Use

- Testing application code for database development and database operations for webpage population

Advantages

- Easily integrates with Python
- Prints results for test pass/fail simply and effectively

Languages and Frameworks - Backend

- SQL
  - Prior experience with SQL language
  - A lot of online publicly available support resources
  - Relational database fit for project needs
- Bash Scripting
  - Provides easy retrieval of html from webpages
  - Easy system level file management
  - Simple script execution

Render - Website Hosting

Overview

- Platform-as-a-service (PaaS) tool for hosting webpages
- Integrates with Git repositories for automatic deployments

Use

- Hosting the project's web application frontend

Advantages

- Free
- Easy set-up and deployment through connection with Git public repository
- Great quickstart documentation

Languages and Frameworks - Frontend

- Flask
- HTML
  - FontAwesome
  - Google Fonts
- CSS
- Javascript

- Flask
  - Lightweight Framework
  - Routing and Templating
  - Database Connectivity
  - Strong Community Support
- HTML is the main code for implementing each web page
  - Templates are created for each flask route that include CSS and javascript implementations
  - Allows for specifications for each web page
  - FontAwesome is a free resource that allows developers to include icons in their HTML for buttons, backgrounds, etc.
  - Google fonts provide a variety of free, additional fonts that can be included in HTML
- CSS brings the basic HTML to life with colors, fonts, backgrounds, spacing, and other styling options
- Javascript allows the developer to manage how the use interacts with the webpage
  - Redirect on button click
  - Change styling on button click
  - Perform functions that interact with the database
- Flask, HTML, CSS, and Javascript are industry standard languages for web development

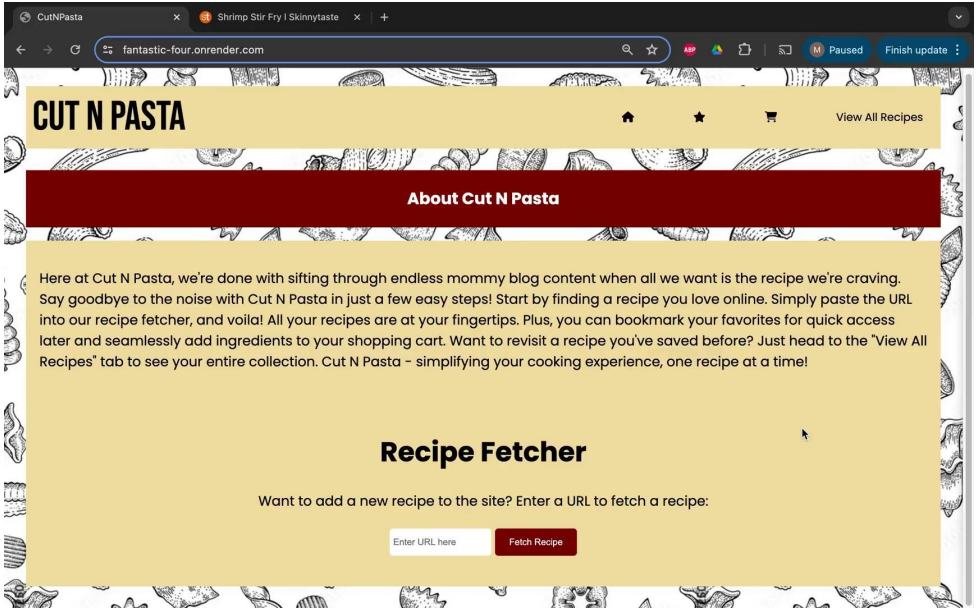
Code Editors

- VSCode
  - Tons of personal preference customizations available
  - Industry standard
  - Issue with JupyterHub prefix functions for flask
- JupyterHub
  - Provides server environment to collaborate and store data/projects
  - Needed to utilize some middlewares with Flask like prefix for proxy environment

Challenges and Changes

- Working on frontend before backend database ready
  - Integration of extraction algorithm with database with frontend
- Conflicts with git, merging, branches
- POST requests not allowed - known problems
- Accepting user input to run extraction scripts
  - HTML request with user input to bash script to postgres
- Team schedules (other courses, work, etc)
- Coding Standards
- Adjusted sprint functionality targets to meet time constraints
  - Focused on base functionality, created examples of extra features that could be implemented in the future

Demonstration of project



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