Gavin Zheng - Python, Java, JavaScript, React.js -- Preference - Frontend/Backend

Hector Ramirez - Python, Java, React.js, SQL(somewhat), REST APIs, Html -- Preference - Backend

Tilak Agarwal - Python, Java, Javascript, Node, React, REST APIs, HTML, CSS, -- Preference - Backend

Jinglin Wang - Python, Java,Javascript --Preference- Backend

Caelyn Gonzalez- Python, Java, Javascript, SQL-- Preference - Frontend/Backend

Moises Loriente- Python, Java — Backend

PHONE NUMBERS:
347-948-2057 - Hector Ramirez
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617-910-6588 - Tilak Agarwal

Frontend: Gavin, Caelyn
Backend:

Project Ideas:

1. Climate and electricity efficiency → Find the hottest cities (population > 100,000) and combine that data with electricity consumption by city to find what cities have the lowest electricity consumption per degree of heat. This might allow us to find which cities deal with heat most efficiently.

2. What tropical fruits and vegetables can you grow at home? → Combine local climate data and climate data about the natural habitats of tropical fruits and vegetables to find out which someone can grow at home and when. [tropicalfruitandveg REST API v1.3 | ProgrammableWeb]
3. Recommend playlist/songs according to season and holidays. → based on the weather, when it comes to holiday seasons, such as Christmas, thanksgiving. Or when it's a rainy day, play related songs.

Submission:

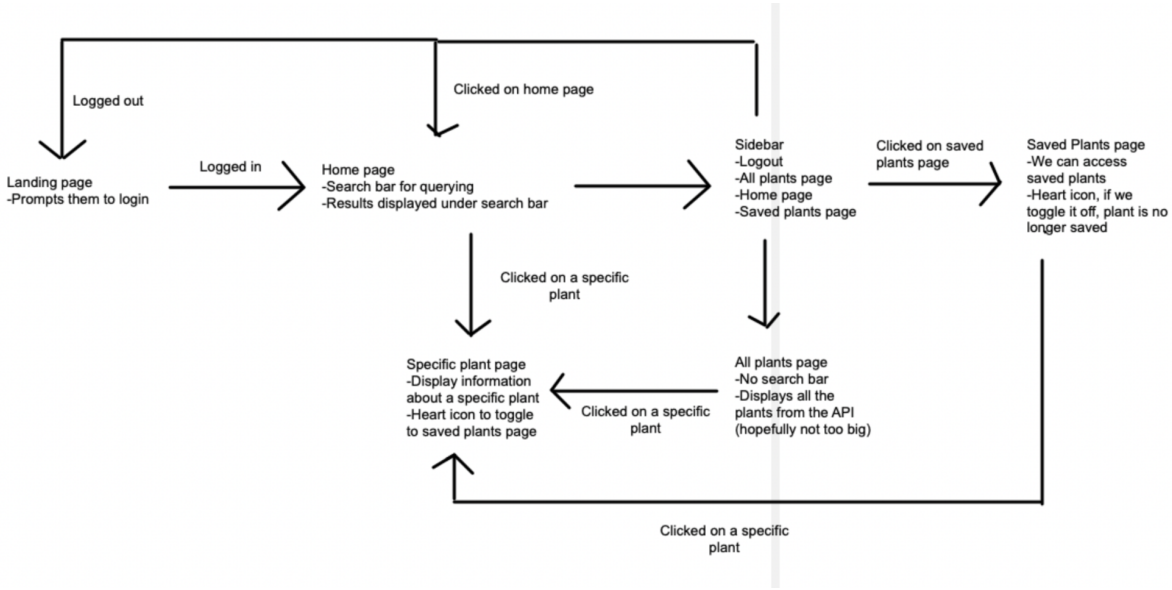
- We want to find out what tropical fruits and vegetables can be grown at home. We can use local climate data and climate data about the natural habitats of tropical fruits and vegetables to find out which ones people can grow at home and when to grow them.
- We want to recommend songs/playlists according to the seasons/holidays. We can base the songs/playlist on the weather or holiday seasons. For example, when it's raining, give the user songs/playlists related to the rain.

Requirements:

-Facebook login (must create an account to use it)
-Once logged in, brings to a homepage that has a text box, where you can enter your location or perhaps use geolocation API
-If user searches a query, display results under search bar
-Need a page where people can view their list of plants
-A page that displays all the fruits and vegetables
-Sidebar

Addon:

-Subcategory in personal list
-Recommendation of plants
-Can have basic functionality without logging in



Project Ideas II

- The user searches for a fruit. The app returns the fruit's health information from the fruit API and a recipe containing that fruit from a recipe API. If there are no recipes containing the fruit then it will still return the health information.

https://developer.edamam.com/edamam-docs-recipe-api
https://www.themealdb.com/api.php

Instead of returning recipes we can also just return food products containing the fruit:
https://world.openfoodfacts.org/data

Tech Stack

Front End:
For the frontend, we had originally decided to use Django's template engine to render some web pages. However, the frontend team decided to pursue the frontend with a javascript framework because it would be easier to implement the front-end logic, as functionalities in the frontend are implemented with javascript. We decided to use React as the javascript framework because it has page routing and state management, which makes it easy to create a single-page application. The frontend is also decoupled from the backend.

Back End:
For the backend we had originally chosen to use Django due to the familiarity most of our backend team had with Python. However, due to the complexity of Django starter files, which give you a large toolset that our team was not familiar with, as well as the frontend team's unfamiliarity with Django connections, we decided to use Flask. Flask proved to be far simpler than Django.