CamoFlask - Kendrick Liang, Derek Song, Zane Wang, Wei Wen Zhou
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P #02: The End
2019-01-08

Pay Day

Project Description:

Our project is a farming simulator fashioned similarly to games such as Simcity and Civilization. After creating an account or logging in, the user can choose a location to start in and see static pictures of the farmland he or she currently owns. The pictures can change depending on the weather and time of day. The player can also see the farms of other players.

APIs used:

- aWhere: This API can be used to provide information about the various crops that the player will be growing.
- Ipapi: To get the information about location based on ip address
- Accuweather Locations API: access to geographical data of a given location (i.e. city name)
- Climacell: access to real-time weather and forecasts
- World Weather Online: access to historical weather data
- BarChat API : Get bids on crops

Features:

- Login Page: Starting page where the user enters username and password or clicks the register button to make a new username, password, and establish a new location.
- View Profile: Allows the user to see his location, crops grown, the area of land, and the current amount of cash.
- View Other Profiles: Allows the user to see other users' locations, crops being grown, the area of land, and amount of cash.
- Home Page: Shows list of all farms at different locations owned
- Farm Layout: Shows layout of farmland after logging in. Has buttons at the bottom to designate a crop to a certain section of the land.

Database Schema:

Users

Username	Password	Cash
TEXT (PRIMARY KEY)	TEXT	FLOAT

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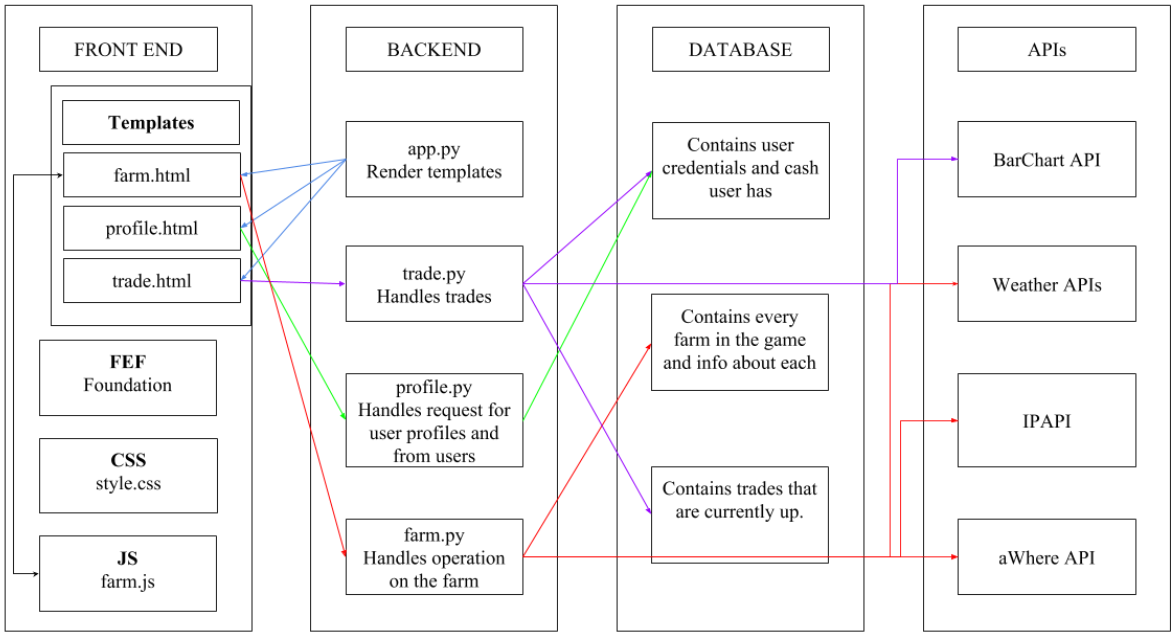
Farms

Owner of farm	Farm Name	Location	Area of Land	Start Time	Crops	Visible
TEXT	TEXT (PRIMARY KEY)	TEXT	INT	TEXT	TEXT	INT - 0 (public), 1 (private), 2 (friends only)

Trades

User	Item Being Sold	Amount Being Sold	Price per bushel
TEXT	TEXT	INT	REAL

<u>Components Map</u>:



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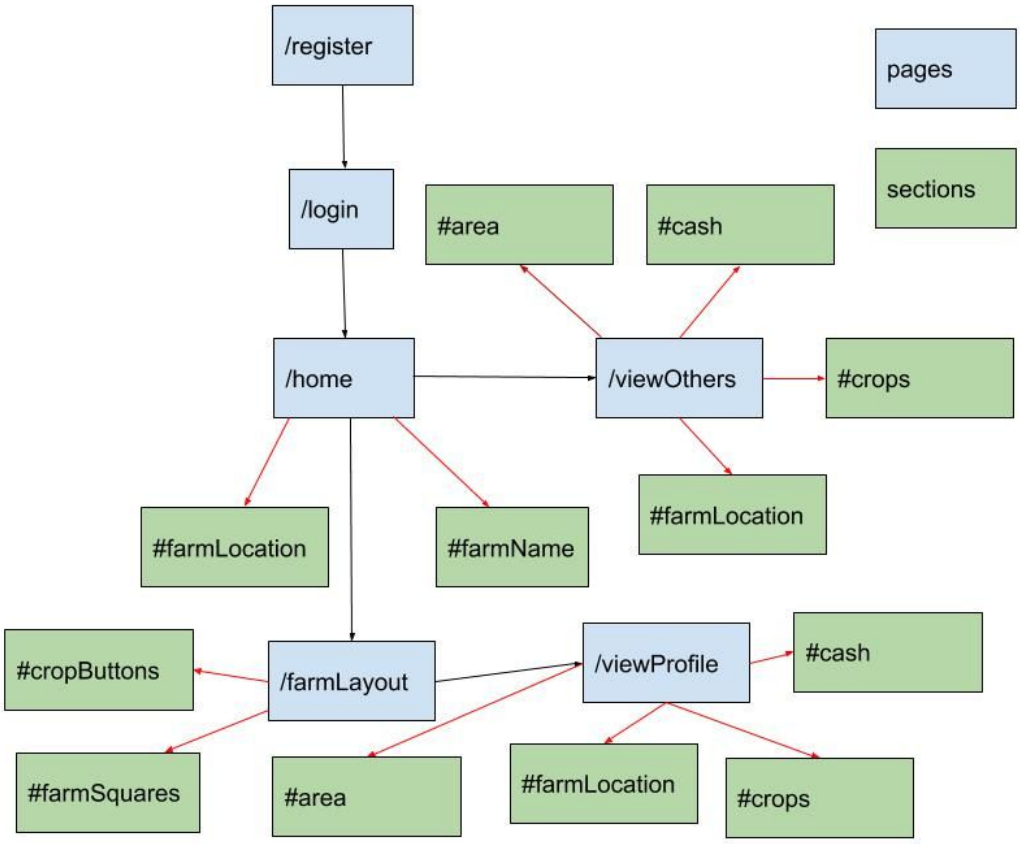
Site Map:



Breakdown of Tasks:
Project Manager: Kendrick Liang
Back End DB: Creating the database and methods that can be called.
Back End API: Creating API keys, linking them to get data for function calls
Back End Critical Components: Key components of generation of time spent playing, the core functionality
Front End Framework Development consisting of CSS, Javascript, and HTML: Everyone after we are done with respective parts
Optional Features:

- Adding more farms
- Plant type differs with location

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Timeline of Events:

First, we will create a profile page with login and log out, and develop .html files for profile and front end displays. (Kendrick)
Then, we will create a rough map in the front end framework rendered farm page. (Zane)
Then, develop the plant function. Use API, and eventually harvest. (Derek)
Implement tilling of the soil, nutrients of the soil. (Wei Wen)
Add in weather conditions from APIs and effects on plants. (Wei Wen)
Add in viewing other user's profiles.
Add in trading/selling of crops.