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SoftDev1 pd07
P01 -- TuneyForecast
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Tuney Forecast

Project Manager: Jerry Ye

Description

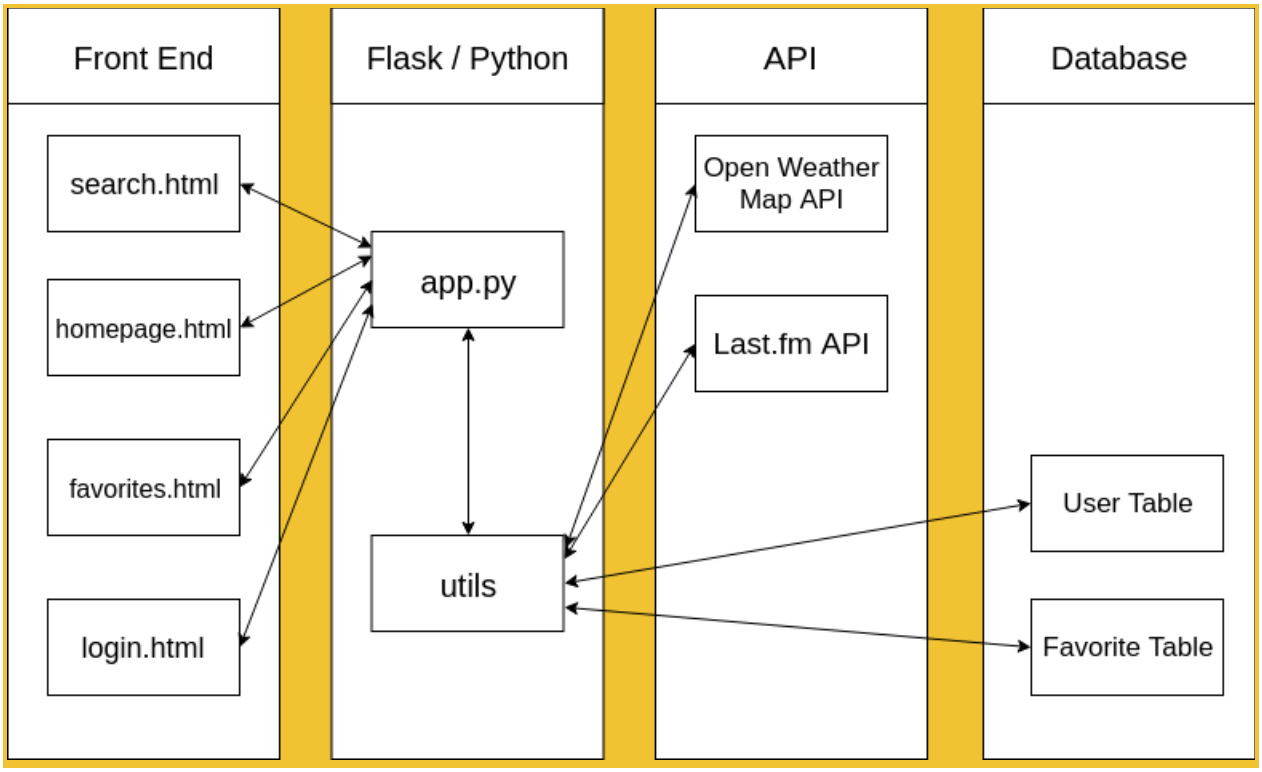
Our project will take advantage of the Last.fm API and the Open Weather Map API to recommend for a user based on their current location. The User will be able to enter a location as a prompt, and our project will take that location and use the Open Weather Map API to generate the weather from that location at the current time. Our project would then call on a self-developed algorithm to take the current weather and recommend song choices based on that.

We decided to use Bootstrap because of its great grid system. It also has great documentation and great developer support. It seems to be more customizable and is more popular, leading to more possibilities.

List of Program Components:

- Front-end (HTML and CSS) using Bootstrap
    - Pages include:
        - Homepage
        - Register(additional feature)
        - Login page(additional feature)
        - Search page
        - Suggested Cities page(same as homepage)
        - Favorites page(additional feature)
        - Music suggestions page
        - Add moods page(additional feature)
- Back-end Flask code
    - Use of Last.fm API and Open Weather Map API
    - Flask code to connect the use of both APIs
    - Login and user creation functionality(additional feature)

Component Map



Database Schema

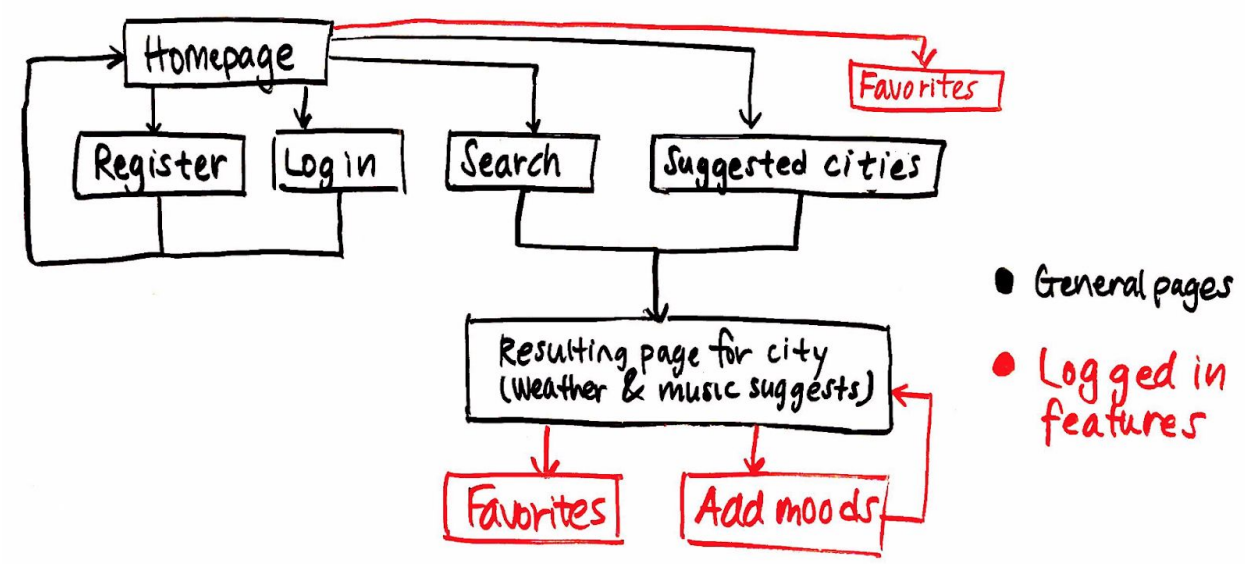
Users:

id	username	password
Integer	String	String

Favorites:

id	song_link	userId	song_name
Integer	String	Integer	String

Front End Site Map



Breakdown of Core Tasks:

1. Create the breakdown of tasks(Jerry)
2. Decide which APIs to use(Entire team)
3. Write up the project description(Jiajie and Jerry)
4. Write up a list of programs components (Jerry)
5. Design Component Map (Jason)
6. Design Front-end sitemap(Raymond)
7. Research and report on Last.fm API(Raymond + Jerry)
8. Research and report on Open Weather Map API(Jason + Jiajie)
9. Write up HTML (Jiajie)
10. Develop an algorithm for generating the music using the weather (Jason + Raymond)
    a. Filter songs based on genre which we will associate with different kinds of weather.
11. Putting the entire backend together (Entire group)
    a. Use flask starter kit (Jerry)
    b. Request from Last.fm API(Raymond + Jerry)
    c. Request from Open Weather Map API(Jason + Jiajie)
    d. Use algorithm to merge use of both APIs (Jason + Raymond) in Util
    e. Write app.py driver file (Jiajie)
12. Write up CSS (Jason + Jerry)