Team Name: Music Under the Weather (Donia Tung, Giorgio Vidali, Masha Zorin)

Outline of Project:
Combine use of the Weather Underground API and YouTube API in a website in which users will input their city and, depending on the weather of their location, the site will provide them with a playlist of songs (and possible links/youtube windows).

A list of program components(different files to do different things, file, data structure) with role of each specified:

APIs:

Youtube:
https://developers.google.com/youtube/v3/
From this API, we're going to access YouTube videos and insert the videos into the website. It's this thing called iFrame which lets you put the embed the video into the website, not just a link.

Weather Underground
https://www.wunderground.com/weather/api/
From this API, we're going to gather weather information based on the city that the user inputs. There's a url link (http://api.wunderground.com/api/31c0e27929b4d46c/conditions/q/<STATE>/<CITY>.json)

Python:

Flask routes- To handle navigation, errors, and displaying
Data parsing functions- To read databases and keep web pages updated
Table modification functions- To update database with new users and user history/likes
Search function- to lookup cities/countries

Bootstrap + HTML stuff:

Search Result pages - show the playlist/videos that match the user's city's weather
Login page - To login/sign up
Home page - Searching for a City
Signup page - for creating a new account
Layout Page- Contains html layout for other pages
Error Page- Displayed when something that shouldn't be accessed is accessed

Database:

Credentials Table: ID|Username|Password- For checking user credentials
History Table: ID|Video ID (of liked/viewed videos)

Explanation of how each component relates to the others:

APIs:

Weather Underground- users will input their city and we'll use the API to find the weather in their neighborhood

YouTube- will be used to get the popup YouTube window

Database:

Credentials Table- Checked by data parsing functions, updated by table modification functions

User History- Contains info to be parsed by python functions and shown on website

HTML files:

Search Result pages - Routed by Flask in python, searched by search function

Login page - Routed by Flask in python, form data authorized by data parsing functions

Home page - Routed by Flask in python

Sign Up page - routed by Flask in python for credentials and history tables to be modified

Layout Page- For other files to inherit

Error Page- The last case for most flask routes

Python script:

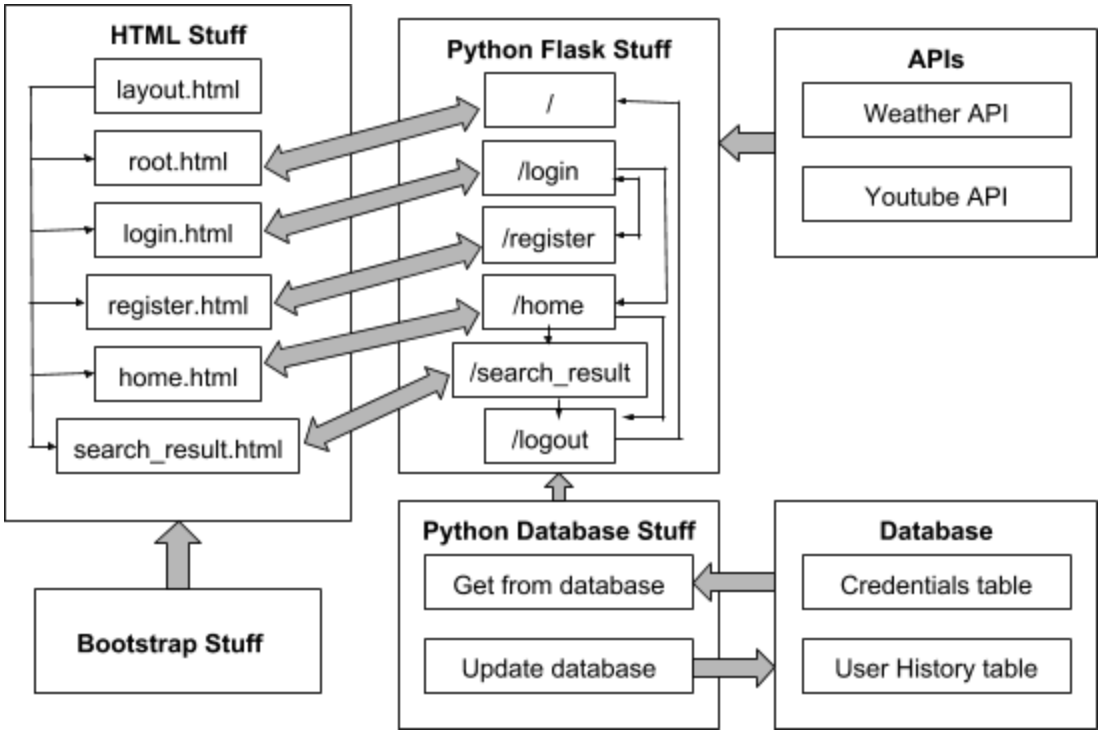
Flask routes- Handles navigation of HTML files by URL

Data parsing functions- Reads data from tables and updates web pages

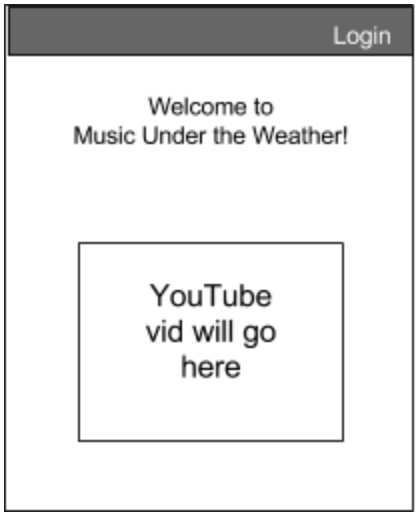
Table modification functions- Updates data tables

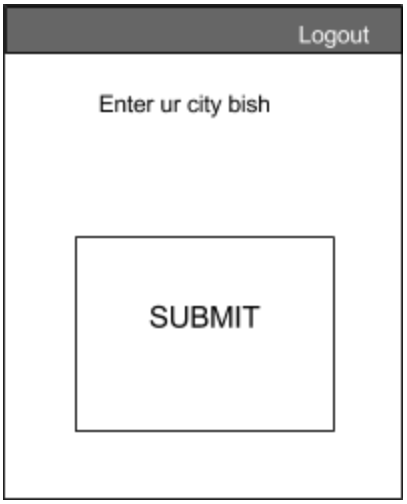
Search function- Finds weather related to a city, finds the videos for the weather

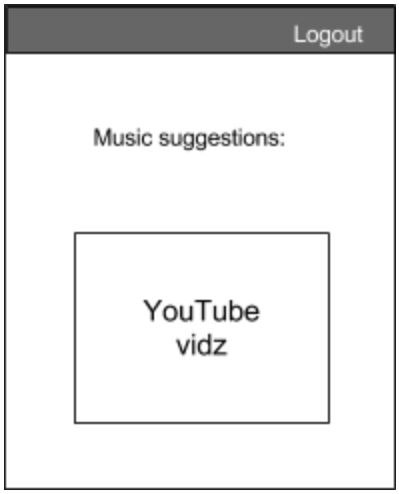
Component map visualizing relationships between components

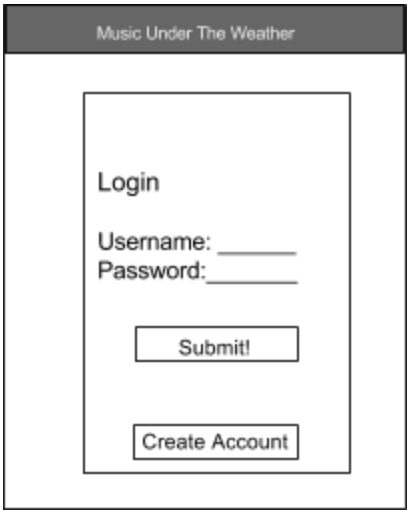


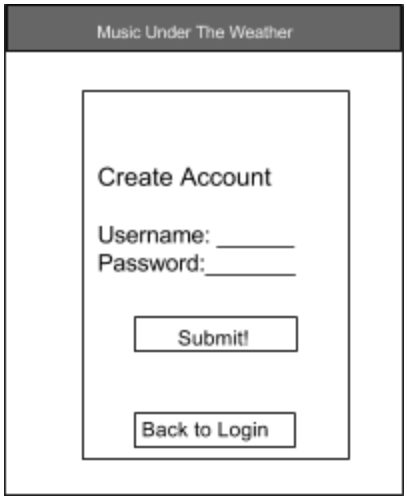
Site map for front end:



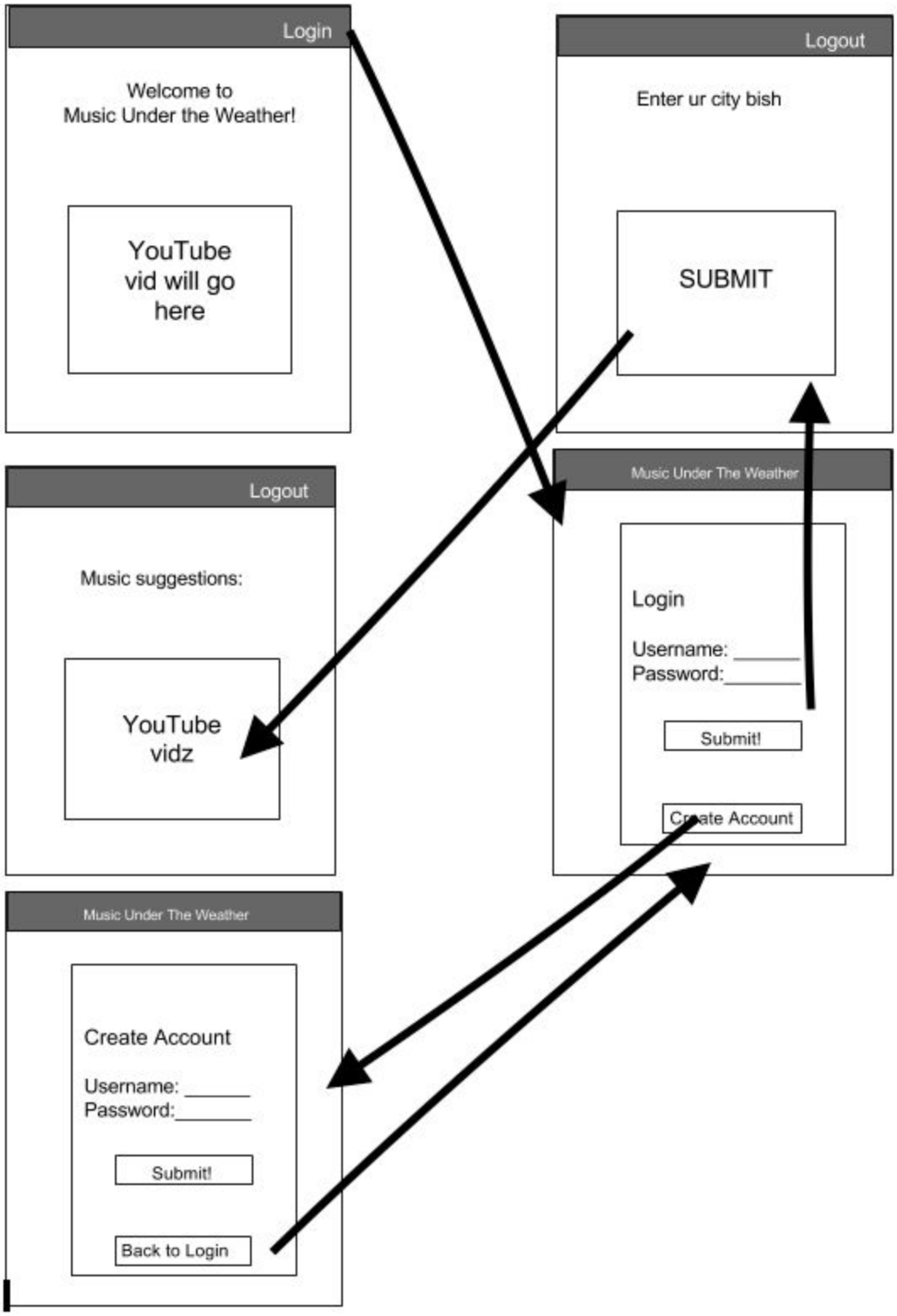








With Arrows:


Login
Welcome to
Music Under the Weather!
YouTube
vid will go
here
Logout
Enter ur city bish
SUBMIT
Logout
Music suggestions:
YouTube
vidz
Music Under The Weather
Login
Username: _____
Password:_____
Submit!
Create Account
Music Under The Weather
Create Account
Username: _____
Password:_____
Submit!
Back to Login

Order of Creation/Importance:

1. Search for city and get temperature from API
2. Return video (+have the video pop up) when a city is searched for
3. Login/Create Account
4. Accessing history of previously returned videos

A breakdown of the different tasks required to complete this project:

- Giorgio: html expert (bootstrap stuff), playlist creator, Chief coder, Total bro
- Masha: python expert
- Donia: Project Manager→ responsible for maintenance of devlog, monitoring equal distribution of work, and ensuring that a schedule is followed. Makes sure the group is consistently moving together, handles (minor) coding tasks as necessary, makes certain the design document is coherent and that the group is adhering to the agreed-upon design, be aware of all changes to the design.