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Devos: Jonathan Song, Daniel Liu, Nicholas Tarsis, Kevin Xiao
Target Ship Date: 2022-12-19

API PLANS / MVP

The APIs we used are: Air Quality API, Country API, and the Weather API. Once the user clicks on a country from a dropdown, they will be redirected to different pages, depending on whether they are looking for country or air quality data (which are different dropdowns in different sections). On the countries page, data will be displayed like population, capital, currency, time zone, latitude/longitude, language, map link, and flag image. On the home page, there is a search bar where one can enter the city name to directly search up air quality values. On the air quality page, air quality values will be organized in a tabular format. Furthermore, one can enter latitude and longitude values within the search bar, which will be parsed and matched to that location to display all relevant weather information. The weather information is limited only to latitude and longitude values within the United States.

PROGRAM COMPONENTS

- __init__.py: app for website
- templates/
    - login.html
        - Typical username/password login
    - registration.html
        - Helps create account
        - Afterward, leads to register_success.html
    - home_page.html
        - Displays lists of countries and cities pulled from the Country/Air Quality API
    - country.html
        - Lists statistics about selected country
        - Includes link to country on Google Maps
    - direct.html
        - Displays air quality for selected country
    - locations.html
        - Helps to select a specific city/area in a country, shows all cities in selecred country
    - weather.html
        - Shows 14-day forecast of specific city
- countries.py
    - Contains list of all countries

    - Puts them all into a list
    - Displays country information on country selected
- process_aq.py
    - Select a specific country
    - Helps provide cities where data is provided (all functions for getting air quality data)
- test_weather_calls.py
    - Provides detailed information about weather forecast for selected city

FRAMEWORK

We will use Bootstrap because it offers us better customizations to our site that make our site look more professional. Such features include: progress bars, sliders, loading buttons, various colored/shaped buttons, customizable tables, collapsibles, forms, search bars**, and tooltips/popovers(hovering will show text).**

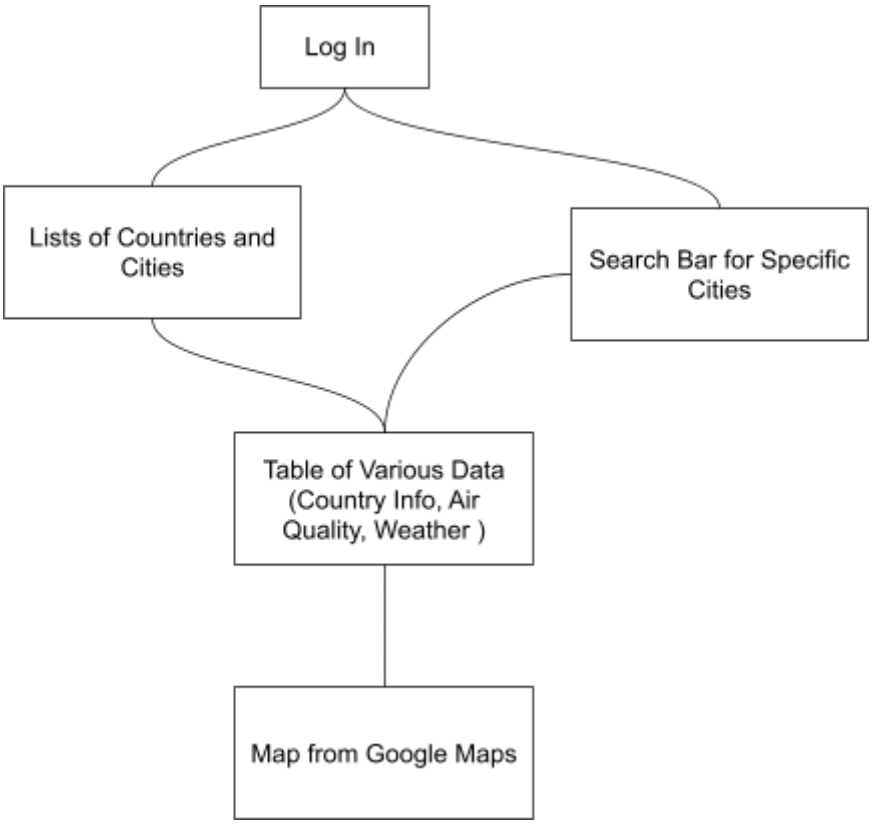
PAGES

- Home.html is the Home Page. Displays several lists of countries and cities to click on and search for their statistics. Also, a search bar at the top to look up specific cities' weather forecasts.
- Login.html, registration.html, and register_success.html have all typical functions regarding username/password login and registration
- Country.html, measure.html, weather.html: all provide specific information based on their respective APIs
- Direct.html helps describe the air quality ranges by directly searching up a location name
- Error.html returns this if there is a problem with the country/city input

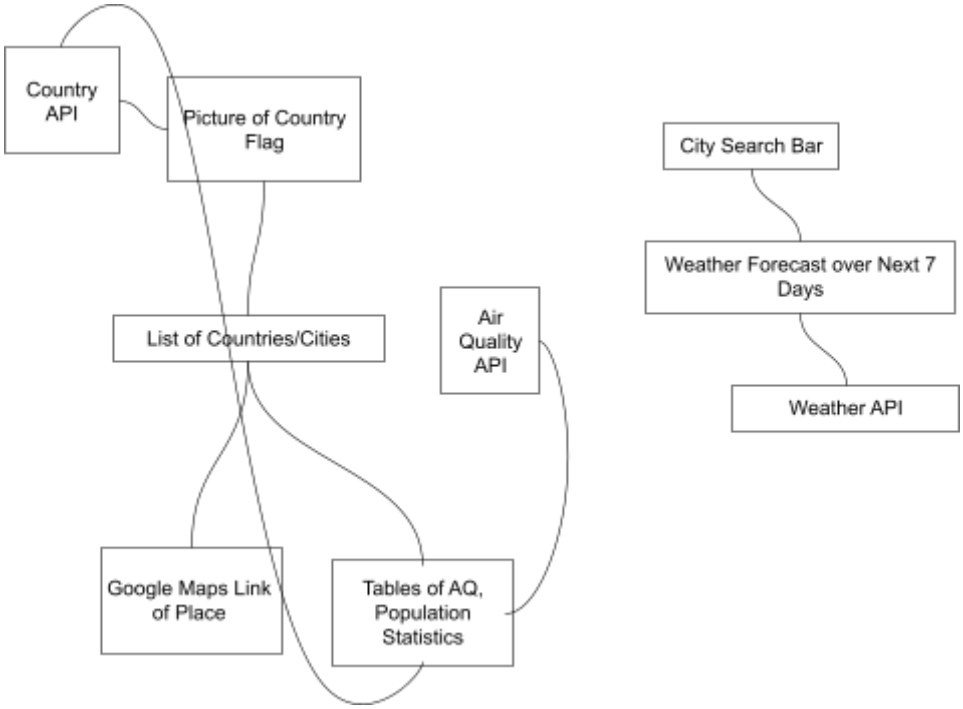
DB ORGANIZATION

Username (Text)	Password (Text)

SITE MAP



COMPONENT MAP



BREAKDOWN OF TASKS

Nicholas: Api Calls for Water Quality Services. Work on displaying a new window for the information associated with each country viewed on a map.

Daniel: API Calls for Air Quality API. Get Relevant Info and Work on Modals. Connect back to Frontend. Work on frontend features like collapsible menus.

Jonathan: API Calls for Countries API, sort through useful vs. not useful information that we will use. Get Relevant Info for Modals.

Kevin: Creating SQL database tables to store api call, updates in real time or whenever user inputs feedback with mouse click. Login/Register Authentication. Hover Country Selection Feature.