
Project 3: Weather App

Team Error Slayers Members:

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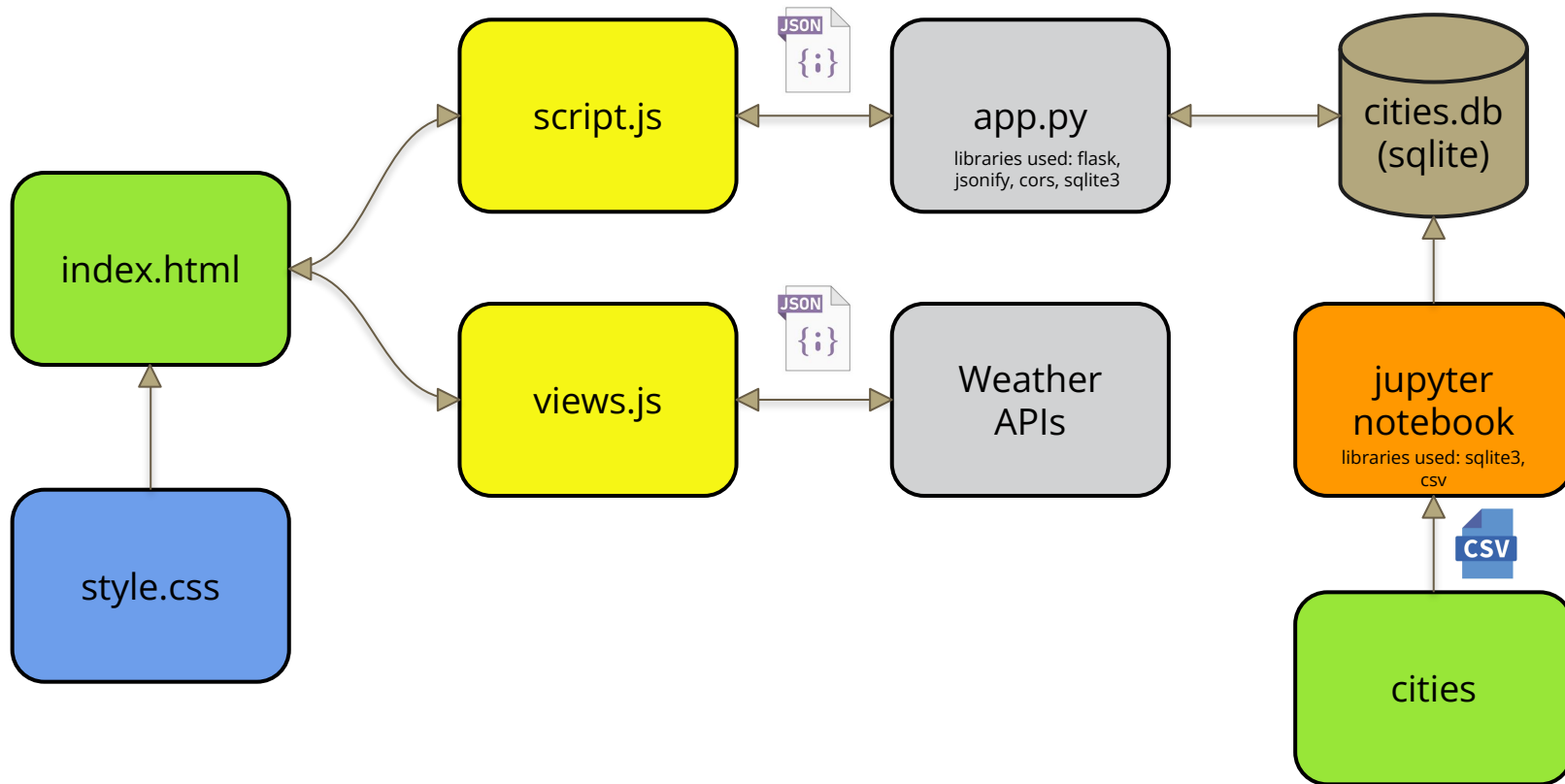
Agenda

- Project overview
- System Architecture
- View 1 - Current Weather: Jiahui Yang
- View 2 - Forecasted Weather: Rajan Patel
- View 3 - Past Weather: Saber Garibi
- View 4 - Sunrise, sunset, current air quality: Ralf Welvers
- Demo

Project Overview

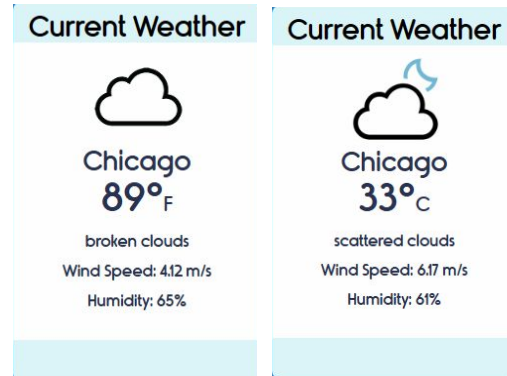
- Create a weather info dashboard using html and javascript
- Cities are stored in a sqlite database which populates the city selection dropdown. A custom-built API provides the city data
 - City and geolocations sourced from: <https://simplemaps.com/data/us-cities>
- Data is retrieved using the latitude and longitude
- Show the following data
 - Current weather
 - Forecasted weather
 - Past weather
 - Sunrise, sunset, air quality index
- Use the following APIs
 - <https://openweathermap.org/>
 - <https://open-meteo.com/>
 - <https://weatherbit.io/>
 - <https://waqi.info/>

System Architecture



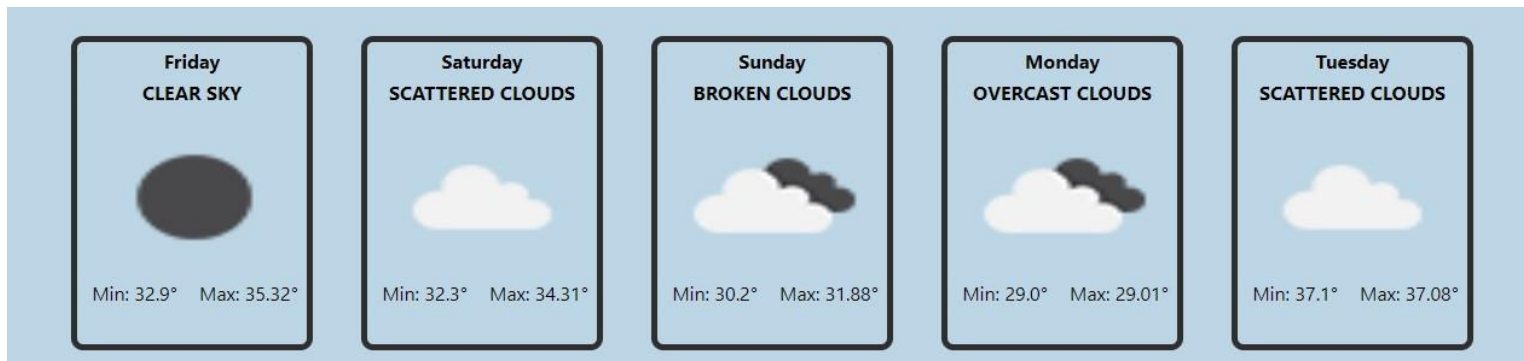
View 1 - Current Weather: Jiahui Yang

- **OpenWeather API** is used, enough information to describe current weather;
- The icons used here are from the **Graphic Designer Ashley Jager**:
<https://github.com/manifestinteractive/weather-underground-icons>;
- **object.addEventListener("click", myScript)** is used to change the unit of temperature;
- A **map** with **circle markers** is prepared;



View 2 - Forecasted Weather: Rajan Patel

- OpenWeatherMap API was used to retrieve forecasted data for the next 5 days (min, max, weather conditons)
- Icons for weather conditions sourced from OpenWeatherMap.org
- JavaScript getDay() method is used to check current day and display the next 5 days



View 3 - Past Weather: Saber Garibi

- **Weatherbit.io** api used to grab historical weather data with the longitude, latitude, start date and end date parameters.
- A js library called **Apexcharts** not prev. introduced in class was used to graph the daily temperatures (min) across a certain time frame.
- **Challenges:** working with free API barriers, minimizing the size of api requests
- **Takeaways and Future Work:** Store historic api calls in database to reduce api request size. Have projection of forecasted weather on the chart.

View 4 - Sunrise, sunset, current air quality: Ralf Welters

- The sunrise and sunset are sourced from the openweather API.
- Openweather API does not provide the air quality index using the index that classifies the air quality into the five categories (e.g. Good, Moderate, etc.). As such, an alternate API was required. Namely, waqi.info.

DEMO

THANK YOU