Weather App

Description

The Weather App is an application that provides weather information about a specific city entered by the user. It uses information provided by the **"Open Weather Map"** API and is made to run on Web Browsers.

Project Requirements

User interface
Creates an interface that allows the user to search for locations from which to obtain weather information. You can create the interface that you consider most appropriate for the user.

- The user can search by a city name the current weather
    - If the API does not find that city that you have entered, you must indicate a personalized message on the screen
- When you have successfully made the request, you should show the following information:
    - Current day of the week
        - Ex: “Monday”, “Tuesday”, …
    - Current date
        - Ex: “25/12/2020”
    - Temperature in degrees
    - City you searched for
    - Sunrise and sunset time

        - You have to consult the API documentation in which time format it gives you this information and convert that time if necessary in Javascript.
    - Show a range of colors that will vary based on the temperature degrees:
        - Range of red colors for very high temperatures
        - Orange color range for high temperatures
        - Green color range for stable temperatures
        - Range of blue colors for low temperatures
        - White color gamut for very low temperatures
    - Use an iconography that corresponds to the state that the API gives you to represent the wind.
    - Use an iconography that corresponds to the state that the API provides you. (rain icon to represent rain, etc.

Project Development

In order to develop this project we have used a simple HTML ,CSS, also jQuery and jQuery ajax method.

```
$("#search").keydown(function() {
    if(event.keyCode == 13) {
        // Saving city to the variable to later search for any city
user looking for
        let city = $("#search").val();
        // To remove previous value
        $(event.target).val("");
```

We have implemented a keydown function so that whenever a user provides the name of any city and simply press ENTER, information of that particular city will show on the app.

Incidents Record

What difficulties have we faced during a project?

We have an issue with the sorting problem of time which we have got from our API. Get Method.To convert milliseconds to seconds we had to do lots of research to resolve that problem.

- Work with a Unix timestamp

  "sunset": 1560333478 (unix timestamp)

  ```
  sunset = new Date(unixTimestamp * 1000);
  ```

- Work with Date object in another time-zone

  ```
  sunset.getUTCHours();
  ```

API Documentation

GET METHOD

https://api.openweathermap.org/data/2.5/weather?q=barcelona&appid=a5139bace4348e746dabcc9171e76505


```
{
   "coord": {
      "lon": 2.16,
      "lat": 41.39
   },
   "weather": [
      {
         "id": 800,
         "main": "Clear",
         "description": "clear sky",
         "icon": "01d"
      }
   ],
   "base": "stations",
   "main": {
      "temp": 295.38,
      "feels_like": 290.13,
      "temp_min": 294.26,
      "temp_max": 296.15,
      "pressure": 1026,
      "humidity": 43
   },
   "visibility": 10000,
   "wind": {
      "speed": 7.2,
      "deg": 50
   },
   "clouds": {
      "all": 0
   },
   "dt": 1590564832,
   "sys": {
      "type": 1,
      "id": 6398,
      "country": "ES",
      "sunrise": 1590553377,
      "sunset": 1590606871
   },
   "timezone": 7200,
   "id": 3128760,
   "name": "Barcelona",
   "cod": 200}
```

Parameters

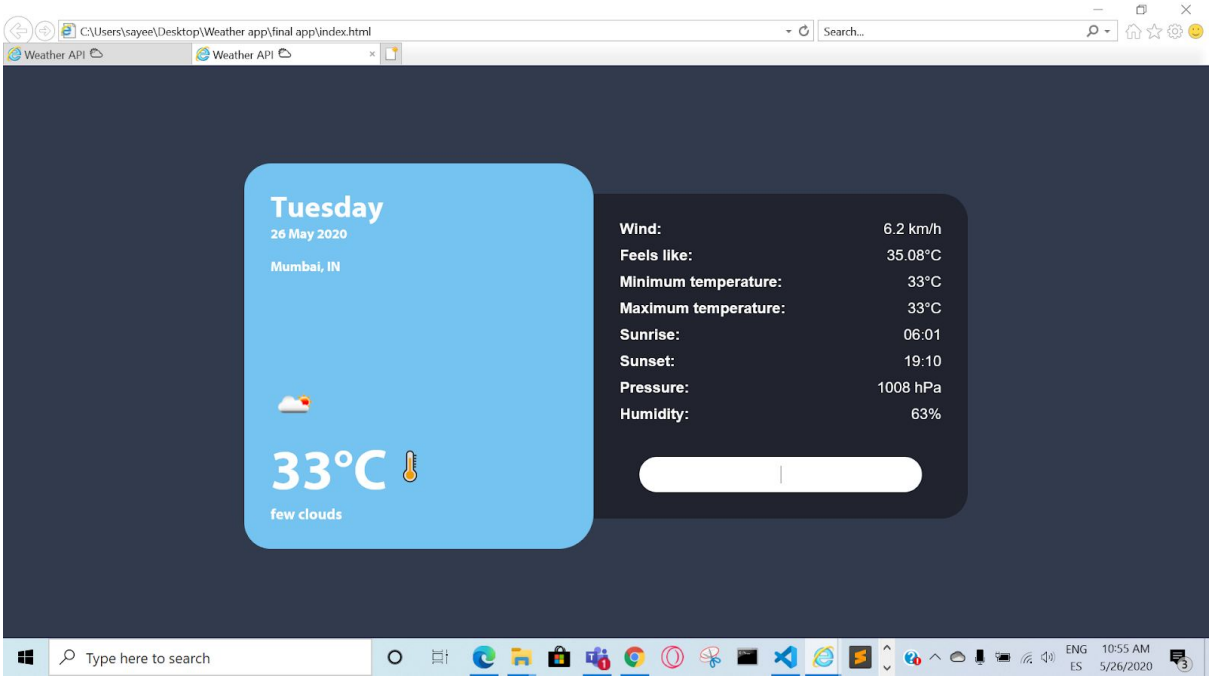
- `city`
  - `city.id` City ID
  - `city.name` City name
  - `city.country` Country code (GB, JP etc.)
  - `timezone`Shift in seconds from UTC
  - `city.sun`
    - `city.sun.rise` Sunrise time
    - `city.sun.set` Sunset time
- `temperature`
  - `temperature.value` Temperature
  - `temperature.min` Minimum temperature at the moment of calculation. This is minimal currently observed temperature (within large megalopolises and urban areas), use this parameter optionally.
  - `temperature.max` Maximum temperature at the moment of calculation. This is maximal currently observed temperature (within large megalopolises and urban areas), use this parameter optionally.
  - `temperature.unit` Unit of measurements. Possilbe valure is Celsius, Kelvin, Fahrenheit.
- `feels_like`
  - `feels_like.value` Temperature. This temperature parameter accounts for the human perception of weather.
  - `feels_like.unit` Unit of measurements. Possilbe valure is Celsius, Kelvin, Fahrenheit. Unit Default: Kelvin
- `humidity`
  - `humidity.value` Humidity value
  - `humidity.unit` Humidity units, %
- `pressure`
  - `pressure.value` Pressure value
  - `pressure.unit` Pressure units, hPa
- `wind`
  - `wind.speed`
    - `wind.speed.value` Wind speed
    - `wind.speed.unit` Wind speed units, m/s
  - `wind.direction`
    - `wind.direction.value` Wind direction, degrees (meteorologica
- `clouds`
  - `clouds.value` Cloudiness
  - `clouds.name` Name of the cloudiness
- `weather`
  - `weather.number` Weather condition id
  - `weather.value` Weather condition name
  - `weather.icon` Weather icon id

Lessons Learned Record

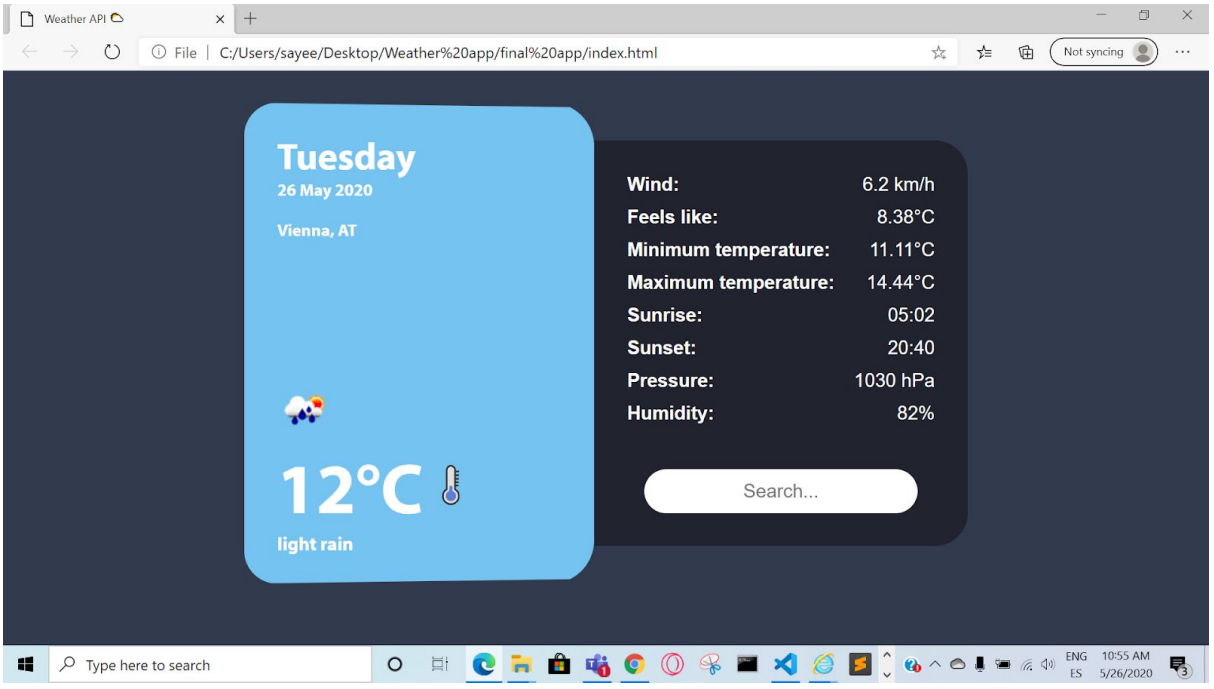
- Improvement of jQuery and ajax skills
- How to get UTC time from a Date object
- Read documentation and learn to use a third party API
- Understanding the importance of Teamwork and solving the problem step by step.

Screenshots

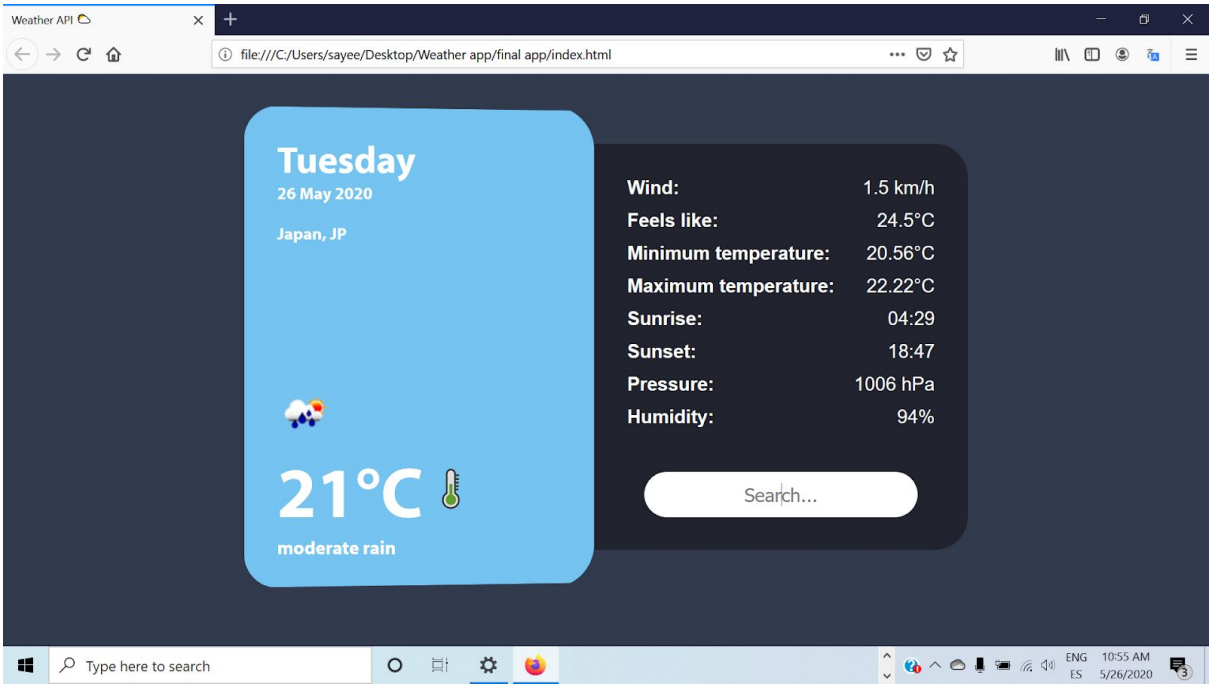
Internet Explorer



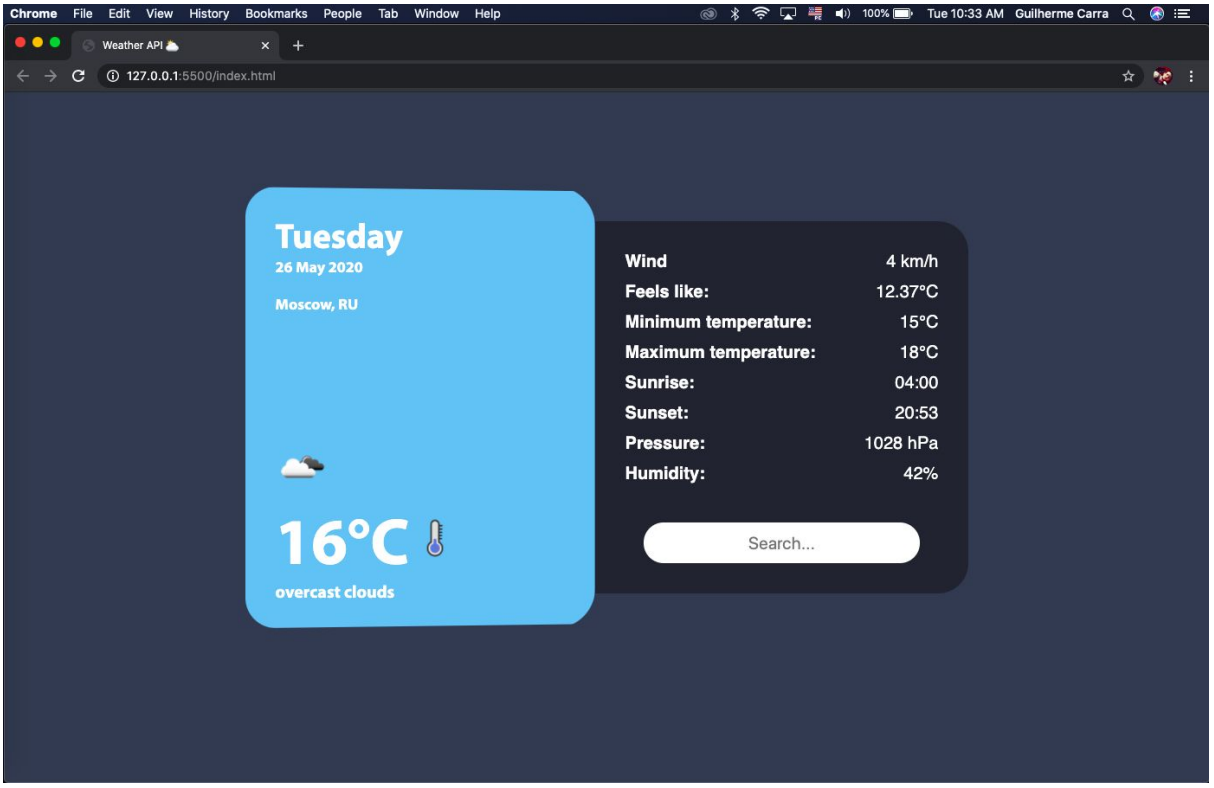
Microsoft Edge



Mozilla Firefox



Google Chrome



Safari