Web & Weather API

Objectives

- Obtain information of thirds parts API
- Obtain information from third-party APIS
- Improve your knowledge of HTML, CSS and Javascript
- Create simple user interfaces to interact with your application
- Learn more about how to integrate APIS and its interaction with the client
- Improve your skills in obtaining asynchronous information by using AJAX
- Structure a WEB project in a clear and orderly manner

Project organization

Fase 1: Investigation about how to make the request through the API Open Weather Map and how to get the information we needed.
- Search current weather data for one location. The API allow you to make a request by:
  - By city name
  - By city ID
  - By geographic coordinates
  - By ZIP code
- Search current weather data for one location. The API response:

```
{
  "coord": {
    "lon": -122.08,
    "lat": 37.39
  },
  "weather": [
    {
      "id": 800,
      "main": "Clear",
      "description": "clear sky",
      "icon": "01d"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 282.55,
    "feels_like": 281.86,
    "temp_min": 280.37,
    "temp_max": 284.26,
    "pressure": 1023,
    "humidity": 100
```

      },
 "visibility": 16093,
 "wind": {
   "speed": 1.5,
   "deg": 350
 },
 "clouds": {
   "all": 1
 },
 "dt": 1560350645,
 "sys": {
   "type": 1,
   "id": 5122,
   "message": 0.0139,
   "country": "US",
   "sunrise": 1560343627,
   "sunset": 1560396563
 },
 "timezone": -25200,
 "id": 420006353,
 "name": "Mountain View",
 "cod": 200
 }

Fase 2: Obtain the weather information required.
Fase 3: Iconography

All existing icons source and class correspondence project			
Day icon	**Night icon**	**Description**	**Class in project**
01d	01n.png	clear sky	pe-7w-sun
02d.	02n.png	few clouds	pe-7w-cloud-sun
03d.png	03n.png	scattered clouds	pe-7w-cloud
04d.png	04n.png	broken clouds	pe-7w-cloud-wind
09d.png	09n.png	shower rain	pe-7w-drizzle-alt
10d.png	10n.png	rain	pe-7w-drizzle-alt-sun
11d.png	11n.png	thunderstorm	pe-7w-lightning
13d.png	13n.png	snow	pe-7w-snow-alt
50d.png	50n.png	mist	pe-7w-fog

Icons in relation to id source			
ID	**Main**	**Description**	**Icon**

800	Clear	clear sky	01d
801	Clouds	few clouds: 11-25%	02d
802	Clouds	scattered clouds: 25-50%	03d
803	Clouds	broken clouds: 51-84%	04d
300	Drizzle	light intensity drizzle	09d
500	Rain	light rain	10d
200	Thunderstorm	thunderstorm with light rain	11d
511	Rain	freezing rain	13d
711	Smoke	Smoke	50d

Fase 3: Make HMTL.
Fase 4: Display the information required in the HTML.
Fase 5: Add some style.

Issues record

- Get time correctly
- Get information correctly if there are more than one city with the same name

Documentation of how to use the API

First, you must create a free account to get the APIKey.

Get current weather

To get the current weather you can use the follow url endpoints:
- api.openweathermap.org/data/2.5/weather?q={city name}&appid={API key}
- api.openweathermap.org/data/2.5/weather?q={city name},{state code}&appid={API key}
- api.openweathermap.org/data/2.5/weather?q={city name},{state code},{country code}&appid={API key}

Parameters.

You can use some optional parameters
Units of measurement

Temperature is available in Fahrenheit, Celsius and Kelvin units.

- For temperature in Fahrenheit use units=imperial
- For temperature in Celsius use units=metric
- Temperature in Kelvin is used by default

You can consult a list of API parameters with units at
https://openweathermap.org/weather-data.

Testing

Lessons learned

- Work with API
- Make request
- Work with an API information