

The goals of this assignment are twofold.

The first goal is to write an html page that uses JSON to interact with the OpenWeatherMap API at <https://openweathermap.org/> using the "current weather data" API documented at <https://openweathermap.org/current> Use the zip code approach using 57042 as the zip code. See the directions at <https://openweathermap.org/appid> You must use the JQuery getJSON method. You must also do the appropriate unit conversions to produce a page as follows:

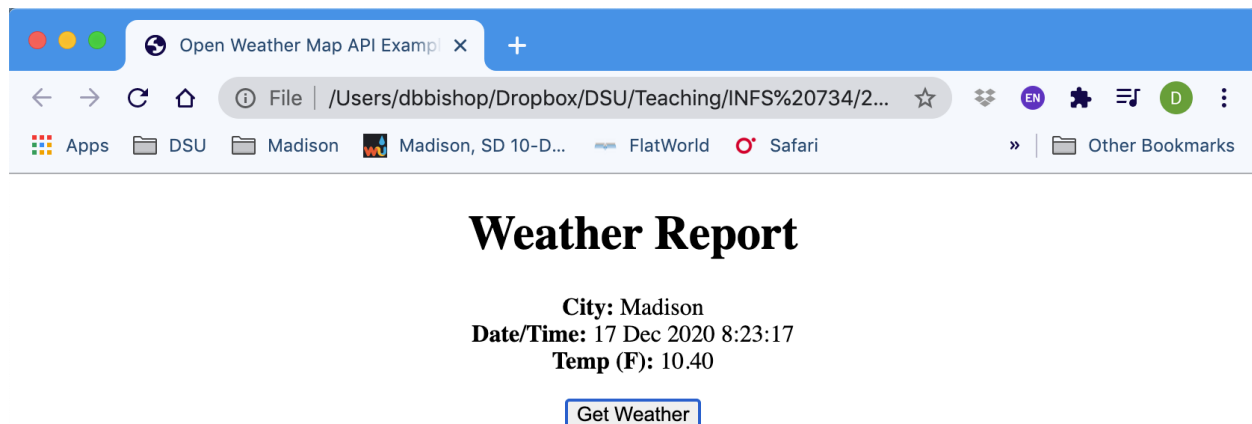


Figure 1 - Weather Report HTML Page

The second goal is to create a JSON schema file and an instance of that object in a separate file with the following characteristics:

1. The title of the schema is Student and it is of type object with the following properties
 - a. Required first name as string
 - b. Required last name as string
 - c. Required studentid as string which contains exactly 7 digits (0-9)

Deliverables:

1. An html weather report document (and any other supporting files) suitable for the instructor to execute on his web browser (no other programs can be required) that displays per Figure 1.
2. A JSON schema text file per the characteristics described above
3. A JSON object text file instance per the schema described above

Grading:

1. Weather Report HTML page (15 points)
 - a. City name derived from the OpenWeatherMap returned JSON object and correctly displayed
 - b. Date derived from the OpenWeatherMap returned JSON object and correctly formatted and displayed as shown in Figure 1
 - c. Time derived from the OpenWeatherMap returned JSON object and correctly formatted and displayed as shown in Figure 1

- d. Temperature derived from the OpenWeatherMap returned JSON object and correctly formatted and displayed as shown in Figure 1. Temp must be in Fahrenheit. You may need to do some JavaScript programming to convert to Fahrenheit.
2. JSON Schema (5 points)
 - a. Describes the required elements in JSON schema syntax per [jsonschema.org](https://json-schema.org/)
3. JSON Object (5 points)
 - a. JSON object is valid and conforms to your schema per [jsonschema.org](https://json-schema.org/)