Lab 8: Web Programming - CSci130

Department of Computer Science, College of Science and Mathematics, Fresno State

Hubert Cecotti

Please keep the different documents that you are creating during the lab sessions as they can be used to assess your participation to the course.

Goals: The goal of this lab is to use AJAX (the XMLHttpRequest object) to load data from the server and present it on the client side.

Learning outcomes:

- JSON, AJAX, HTML5 Geolocation

Exercise 1.

In this exercise, you have to reuse the jSON file : superheroes.json and the HTML file: load_jsonfile.html that were provided on Canvas (jSON session).

You have to update the code so you can read a file with AJAX (i.e. using the XMLHttpRequest Object) and therefore read the file **from** the server, i.e., your local Apache server.

You may update the code so you can select how you want to open the jSON file (i.e. locally or on the server).

Exercise 2.

The goal is to create a website (HTML page) that displays a map of the Fresno State campus and displays a point at your current location by using the **HTML5 Geolocation API**. You can download a map of the campus on the Internet. You can use Google Earth to verify the coordinates of the different locations.

https://developer.mozilla.org/en-US/docs/Web/API/Geolocation_API

The page should display your current location if you are in a different place on the campus. Under the map of the campus that gives your location, you should display:

- The coordinate of your location (latitude, longitude)
- A button that **saves** your location in a JSON file (reuse the code given in class)
- A button that **sends** your location to the server and returns what was sent (Reuse the example given in PHP)
- A button that **loads** a JSON file located on the server. It should display a small icon on the library and the science II building.
  The JSON file should contain an array of locations described by their name and their coordinates. In the present case, it is an array of 2 objects (library and science 2, with their respective coordinates)
    - There are 2 possibilities:
        - You can load the JSON file directly, after creating the object manually
        - You can load the JSON that has been sent from the server to the client, the JSON can be created in PHP (reuse the example given in the course).