

# Lab 6 – Person Tracker

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Section: 021

## Introduction:

- This lab is an exercise in creating both a front-end application, and a back-end server that the front-end application sends requests to. Specifically, the server is implemented using Node.js and is responsible for serving files for the web application, as well as returning JSON data corresponding to URL query parameters coming from the front-end application. The front-end client application and the back-end server together create a Web App responsible for displaying the location of People across the United States according to filter values defined by the user. The people that correspond to the user's search parameters are displayed in an interactive map as well as in a sortable HTML table.

## Summary:

- This lab was a major learning experience as it was the first time that I have dove into creating an application that uses a back-end server. The first thing that I learned, is how to construct a URL such that the desired resource is returned by server. This was done by properly defining the path as well as the query parameters. In addition, I learned how to use AJAX to send GET requests, which came much easier to me than just using the fetch() method. In addition, I learned how to use Express to serve up responses for when certain resources are requested, and how to return a 404 error when the requested resource does not exist. Lastly, I learned that HTML tables do not have a simple "sort()" method that can be used to sort the contained data, instead it is required to iterate through the rows and swap out-of-order rows.

## Suggestions:

- It would be helpful if lab prompts could be included in a PDF. This is because with the number of requirements in these last few labs, it would be nice to be able to cross them off as I complete them.
- It would have been helpful to have screenshots included in the lab prompt so that it was clearer what the expected appearance of the App was for edge cases, such error states, empty tables, and correctly sorted tables.
- It would have been nice if the exercises leading up to this lab included more work on making client to server requests. I felt like there was an under emphasis on this and I had to do a descent amount of googling on this topic.

## Things I Enjoyed:

- I enjoyed the clearly stated requirements
- I enjoyed the rubric which made it clear how the Lab would be graded
- I enjoyed the sample JSON response's which helped me ensure my server was working properly
- I enjoyed the hint section of the Lab prompt. This section likely saved me a lot of time