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### **Final Reflection Paper**

Coming into this class, data visualizations have always been fascinating to me to look at but, I never really questioned how these were created nonetheless if I could one day create them myself. Over the past year before enrolling in this class, I taught myself how to build websites with HTML and CSS but, I never got very deep into JavaScript. When I saw that all three of these languages and also another called D3.js would be included in this course I knew I had to sign up. With no JavaScript experience and no clue what D3.js even is, I was pretty skeptical about how well I would do in this course and hoped that my skills in HTML and CSS would carry me through it. Although once class got rolling and the live coding sessions began, I knew this class would teach me more than I could have expected going into it.

While I knew it was going to be a great learning experience, I also realized it would be a challenge and something I really had to commit myself to. Going into the first real assignment we created with D3.js, I struggled. After class and the coding session, we were assigned to create a simple table chart. Although I knew how to do this using HTML, it took me hours to get my table up and running. Looking at that assignment now, it shocks me how simple the code that went into it really was. Back then, I struggled to understand how to use `.selectAll()` and `.join()` when in reality, they're very simple. Going forward to the next assignment, we created a horizontal bar chart. While building that, I became a lot more comfortable with many of the basics and felt confident enough to add a little bit of style the chart using a color scale as well as style the website with CSS. The next two assignments added one of the coolest but also in my opinion, one of the most tricky things we've had to work with throughout the class, which was state management. This gave readers the ability to select the data that is shown and compared on a chart they are viewing. As many of us probably did, I struggled with comprehending exactly how everything communicated together but, with a little help from Ellie, I have a decent understanding of how this all works now. Tutorial number five came with my personal favorite assignment that we completed, which was a geographic visualization. Using D3 projections and a bunch of coordinates, we were able to create a map of the United States and then layer data

on top of that using its own set of coordinates. To me, map data is one of the most visually pleasing data visualization so for this assignment, I spent a lot of time trying different things to make it look as interesting as I could.

At this point in the semester, I had all the needed tutorials completed and it was time to begin working on our solo projects. For these projects, we were given full creative control and could create anything we wanted as long as it fell along the lines of the type of project we were assigned. For the first project, we created an exploratory visualization with our selected data. The goal of this project was to present the data to our readers but provide little to no conclusions on the data. Instead, this type of visualization is designed to allow the reader to come up with their own conclusions about the data. My assignment was based on Twitch viewership for games that broke the top ten in player count. For the data I used, I collected data every day from the Steam website and also a third-party website that collected Twitch viewership data. My design choices for this project were very minimalistic. Since it was supposed to be exploratory I decided to keep it simple and not make it distracting. I included a short description of the project at the top and then the two charts below. I wanted to make it feel like this site was related to Steam in some way so, I used Steam's color scheme to design my site. If I was to do this project again or had more time, I would place the charts on the site differently as well as create more unique visualizations. For the second project, we created a narrative visualization with which we tried to persuade the reader to see our point of view. I decided to keep the video game trend going and create this project focused around stigmas in the gaming world. When creating this project I first laid out what stigmas existed around gaming. I came up with three which include that gaming is not a profitable industry, gaming is only for kids, and that gaming is only for males. For the data, I used multiple datasets found on [statista.com](https://www.statista.com) that all fit my desired goals of this assignment well. The color scheme I used came from the gaming console known as Xbox. They have a very famous and recognizable color scheme which is green, white, and black. I used this as a subtle link back to the topic of gaming. For the format, I used flexbox and Bootstrap to help place things on my site and gave it a sequential type of format with the way the charts and paragraphs alternate their positions.

All in all I was extremely happy with this course and its outcome. I have always been interested in learning more about JavaScript but, I never knew where to start. This introduction to D3.js was a great way to get into the language because of the satisfaction you feel after getting these visualizations to work. While I am a part of the Data Analysis and Visualization program, statistics have not always been my favorite thing in the world. D3.js has peaked my interest and I hope to use it more in the future and focus my learning experience at CUNY around the visualization side of the program. I look forward to taking the next D3.js course when it becomes available and I'm excited to see what amazing visualizations I will be able to create then.

P.S. – Thanks for the great semester, Ellie!