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CS Senior Design – CS52002

Self-Assessment

Part A:

This project taught me a lot about how to use React and APIs and bring them together to create a cohesive application. Last Fall, I identified React as being the technology about which I was most excited to learn. I am glad to say that during the course of this project, I feel a lot more confident in my ability to use basic React hooks and look forward to learning more in the future. Another technology that I learned about during this project was D3, a popular JavaScript visualization library. Learning about D3 was helpful because we are using it in my data visualization class and this project gave me a better understanding of the components of the D3 DOM manipulation procedure. One of the big challenges was actually using the combination of D3 and React together because they both aim to manipulate how toe DOM is served back to the user. Using React and D3 for our project has given me real-world experience navigating the DOM, a concept that, prior to this project, I only understood conceptually.

As for my contribution to this project, I aimed to help much as I could with all assignments, planning, and ancillary activities because I knew that I would require more time to work with React components given my limited prior experience. My individual contribution to the application itself came in the form of the D3 emoji chart and bug fixes for the map and pie chart. The D3 emoji chart was a bit confusing because it required a very particular regular expression to get only specific emojis from the returned Twitter data. Then, I deleted edge cases that would return things like regional indicators that did not populate correctly. My contribution to the bug fixes was some testing and minor fixes for repopulation of individual tweets upon clicking the pie chart and updating the map per request.

Part B:

As a group, we were able to come as close as possible to our original vision of Marv. Due to the limitations of the Twitter API, we could not break down public sentiment based on geographic location, so we pivoted the goal to showing data visualizations to better understand the aggregated public sentiment and correlate this with the closest location of the topic selected and its Google review. This project helped me learn more about how to effectively utilize Git in a team environment and how to divide work to give everyone an opportunity to contribute. I think our group was successful in collaborating when it really counted and working together to bring the application to a good endpoint when the deadline came around. I think our group struggled to work on the application early enough to avoid a crunch. Overall, I think this project gave me a better sense of a sensible time frame for ideation, planning, and creation of an application.

I think my work, in comparison to my teammates, was about average. I know that I could have done more to help because most of my contributions to the code base were made at the end of the semester. I think if I had started learning React more towards the beginning of the semester, I could have either taken on more of the load or even made some additional features

to the application. All members of the team put in an acceptable amount of time into the project, though I would like to point out that Anna Chambers probably put in the most time. She was responsible for the Twitter API, the sentiment analysis, and she even did a couple of the D3 visualizations. She was also very helpful, especially when it came to working with React.