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CS 411 Team Assignment 3 - Technology Stack

Language Decisions

For technology stacks, our group chose to go with Node.js. According to public data on GitHub pull requests, Javascript is and has been the most popular language on the site for at least a few years. Because of its dominating presence in the field, our team believes gaining more experience with Javascript in the backend would be very valuable. From an outside perspective, using the popular language is also helpful for readability and makes it more likely that a stranger would be able to understand our codebase.

Nonetheless, we did consider using Flask (Python) as our primary language. Again, according to the public data on GitHub pull requests, Python has consistently shown to be the second most popular language, and quite comparable to Javascript. Therefore for the sake of learning and codebase readability, Python and Javascript are rather similar. However, given that our front-end will likely be written in Javascript, it would be beneficial for us to have consistency in language between the two. By using Node.js, it increases visibility and eases the workflow.

Furthermore, we decided to use MongoDB as our framework for the web application. We feel that a noSQL database such as mongoDB is very compatible with Node.js. It handles data in a JSON format, which is easily manipulated with Node.js. It is also generally more performant when compared to relational databases. We had also considered using MySQL; however, we find that for a small scale project, it is also easier to set up a data store which doesn't require normalization.