

### CS411 Project Assignment #3 Prototyping API calls

When choosing what tech stack for the back end to go with, we decided to side with Express to be our framework and work with Node.js. Some of the reasons as to why we use Node.js is due to its speed and performance. We will be need fast updates for our web app and we believe that Node.js offers that. There are also a lot of free tools and resources available for us to use to assist us in the process of creating the application. As a result, development will not be as time-consuming, and we can be a bit more flexible when developing the app. We do also understand the limitations of Node.js such as it's bottlenecks due to being asynchronous. Because of the asynchronistic nature of Node.js, if there computationally heavy calculations that need to be, it will slow down the whole system. Having many queued callbacks could also be an issue as well if each callback takes a long time. We do not expect, however to be performing massive calculations that would be the result of such an event.

Some of the other technologies we considered was Ruby on Rails and Django. Rails has fast application development and does not need packages to be downloaded like Node.js. Rails does, however, not perform as fast as Node.js or Django and it can have a lack of flexibility should some of the default modules backfire. Django is very scalable and has a lot of free resources, documentation, and tutorials, and is done in Python which is very user friendly. It does, however, fall short again when it comes to performance. It is also very heavy for just a small project that it not being used on a large scale. It's not as light as Node.js. These are some of the reasons why we chose Node.js over some of the other technologies.