Team 4 Project - Art Gallery - MEAN Stack

The members of team 4 considered multiple factors into selecting the most reasonable development stack for the project. The factors include popularity, complexity, and suggestions. Team 4 ultimately decided to develop with the MEAN stack, which stands for MongoDB, Express.JS, Angular, and Node.JS.

For the frontend development, Angular was the appropriate choice. Based on the 2023 developer survey conducted by Stack Overflow, Angular comes directly after React as the 2nd most popular frontend framework. Developed mainly by Google, Angular is a free open source MVC framework utilized to build web applications. The complexity of Angular is considered higher than that of React, however, large corporations tend to prefer Angular due to its advantages in maintaining and scaling large applications. Therefore, having proficiency and experience in Angular would be beneficial when applying for a software engineering job.

For the backend development, Node.js and Express.js were the optimal selection. In order to keep the programming language consistent throughout the application, team 4 chose the server environment that is based on Javascript. Moreover, the preference towards the Express.js on top of Node.js was an act of pursuing the popular norm in the full-stack development community. Additionally, the simplicity in the integration of Express.js and Node.js together were extremely appealing.

For the database system, team 4 has selected MongoDB, which is classified as a NoSQL database program. Mongo is a popular and powerful database that is considered more faster and scalable than SQL databases. However, team 4 plans to also implement MySQL as a replacement of the current database, solely for learning purposes.

Overall, the suggestions from Professor Donham was the largest influential factor in choosing the MEAN stack. Although using Python in the backend would have immensely decreased the complexity of the project, team 4 prioritized the learning opportunity over simplicity.