Team 9
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Architecture/Platform

The architecture we are choosing is MEAN because we believe it is the most advantageous in accomplishing what our site needs to do. Using MongoDB as the database component allows us to manage our different documents in one collection where our code defines our schema. It would also present our project with advantages if we decide to develop it further for scalability and speed. Using Express as the framework will allow us to standardize how we build the website with consistent routing to modules. Using Angular is also a major reason in choosing MEAN because it allows communication between the front end and back end of the site in real time which is extremely helpful for the search function, giving us live object support. Node.js provides us with a large amount of packages that will be helpful in carrying high-level tasks we might need, therefore allowing us to be more efficient while creating our site. It is also highly scalable and has fast javascript execution and will simplify the server layer. Ultimately, using MEAN will help make our site as efficient as possible and allows us to code in Javascript.

An alternate framework/architecture that could be used is the Apache Tomcat Catalina framework. However, we believe that it might not be the best choice because of several limitations. For instance, there are way less ready-made packages for Catalina as compared to Node. This would severely reduce our team's efficiency since we will have to build every feature, no matter how minor it is, from scratch. Also, in comparison to Node.Js, Tomcat has numerous security vulnerabilities that we will have to pay attention to and patch by ourselves. Last but not least, it can be argued that Tomcat is a decently old framework that is bloated, and not as innovative or easy to work with.