For the front-end development, our team was debating between React and Angular.js. While both frameworks are great options, we decided that React was the best fit for our project. Aside from having team members who have experience in React, the framework is simple to learn if the individual already knows JavaScript. While having many components building our app would increase the performance of the application, Angular.js is more complicated and would take longer for an individual to understand. Additionally, since most team members do not have experience with Angular.js, it was a logical dissection to go with React. In addition to this, we decided that the development of our application would be easily implemented using external libraries. The two main options that our team discussed for our external libraries included Material UI and Bootstrap. While both of these libraries are very similar, Bootstrap offers some key components that Material UI does not have. The main reason we decided to choose Bootstrap over Material UI comes down to consistency. Although Material UI supports fully customizable components, it lacks consistency when re-using these components.

When it comes to back-end development, we chose Django as the best fit for the project. This was largely due to Django's basis in Python. Because Django is Python based, our development of new options and features will be more rapid due to its open libraries, simplicity, and readability. This makes it easier to structure the project and lay down clear guidelines for the features that need to be built. Also, due to the simplicity and readability of Python, and since most members already have experience with Django, what few members who may have had little experience with Python or Django will not be met with a difficult learning curve. When it comes to handling data, Django has a wide variety of tools that are already implemented. This will make production quicker and data more manageable. Since data security may potentially be a concern regarding individual user accounts and data associated with them, the tools Django provides reduce risk of security breaches. Some common security concerns that Django does well to prevent include clickjacking, cross-site scripting, and SQL injection. The ability to implement unit tests in Django with ease is also an attractive quality as we can catch errors a lot quicker making debugging easier. Another framework we considered was Flask. However, Flask does not have nearly as much support making it potentially more difficult to learn nor does it have nearly the same capability for complex projects as Django does. Since this project will likely contain several dynamic pages, Django seemed to be the better option. Another possible framework was Express.js. However, due to most members having familiarity with Django and Python along with many of its features and not as much experience with JavaScript and Express.js, we consider Django the more obvious choice factoring in learning time and difficulties with an entirely unfamiliar framework.

When it comes to version control and communication, we have decided on Discord, GitHub, and Trello. For setting up meetings and general communications we saw that Discord was the best option. This will allow us to chat with one another if any member of the group is stuck on a task. Handling our project was another concern that came into mind. Because of this, we think GitHub will be able to alleviate this concern. With GitHub, we can collaboratively work on the code for the front and back end of the project. GitHub also supports version control. This allows us to collaborate without risking the integrity of the master project. Looking at how we want to handle goals, we thought that Trello was the perfect fit. With Trello, we are able to create tasks and assign them to people very easily. This will help when it comes to setting up deadlines.

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https://www.imaginarycloud.com/blog/angular-vs-react/
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