CS411 A3
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Final Project Technology Stack
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Technology Stack:

Front-End Languages: JavaScript, HTML
Back-End Language: Python & Django
Database: MongoDB
External API Database: TicketMaster Discovery API, Spotify API

Explanation:

For the front-end web development, we decided to use HTML to define the content of our web pages and use JavaScript to program behaviors of our web pages. Before deciding which languages we should use, we checked both the TicketMaster API and the Spotify API. The data type of both databases is JSON. Since searching is the key feature of our web application, calling from databases should be the most frequent events occurring in our app. In this case, we believe that it will be easy for us to get access to JSON by using JavaScript.

For the back-end development, we decided to use Python as our primary language and Django as our web framework. Since the back-end development is more related to the database, before deciding which language we should choose, we did some research on which languages are supported by MongoDB and JSON. We deliberated between Python and Java, but since most of us are better at Python than Java, we decided to work with Python. For the framework, we decided to use Django, since it has lots of built-in features, which will make our tasks easier. More importantly, it has built-in Bootstrapping tool, which makes our front-end development easier.

While deciding which type of databases we should use, we thought about the purpose of our web application. Since our app attempts to recommend concerts for each user, our app is user-centered. A relational database may complicate some issues because we need a lot of keys to build connections among lots of tables. Therefore, we decided to use a document-based database, MongoDB, so we can simply store all of the information related to one user in one document.

For the prototype, since we only need to call one of our APIs and display the results, we are only in the front-end development. The languages we used only include HTML, which helps us create a form, and JavaScript, which allows us to call TicketMaster API.