

Senior Design

Assignment 7 – Constraint Essay

SoundScape

One potential factor that could constrain our project is economics. Our project does not have a budget because there are no sponsors, so any purchases would come directly out of the group members' pockets. Therefore, our project's preliminary design relies heavily on using free resources such as free APIs and other software. This also complicates database usage since having a database will likely require funding, which means we are more inclined to find a solution that may be more difficult but does not require a database so we can save money. Although small purchases could be made, if necessary, not having funding for the project could limit the availability of resources required to complete it.

Another potential factor that could constrain our project is ethical/security. Our app will be designed to collect user data and perform actions based on that data. For example, our application may prompt the user for certain information such as emotional states, location data, and other personal information that can be used to specifically tailor playlists to the user. If users do not want to provide this information to us, then we will need to make sure that our application is not invading privacy and instead find another way to build a playlist without using sensitive information. This also means that security will be important in our app and having to prioritize that could limit the breadth of our app's functionality.

One final factor that could constrain our project is professional expertise. This could impact our project due to the fact that none of our group members have had extensive experience with developing music applications in the past, which means that we will need to take into account the time it needed to familiarize ourselves with Spotify's API, as well as music and playlist building algorithms in general. Building playlists based on user input may seem simpler superficially, but we will need to be careful and attempt to anticipate problems that may arise early on so that development is not halted.