Team #1
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Project Name: (Segue™)

Project Synopsis:

- Predictive music transitioning mobile app that predicts and mixes songs according to the listener's best interests.

Project Description:

- Despite the many features that music streaming services provide, only a few features exist that target passionate and devoted music lovers. Segue aims to reach beyond basic curated playlist; by utilizing music theory into machine learning algorithms, Segue will provide extraordinary transitions between songs. For instance, by taking advantage of the BPM (beats per minute) of a song and additional metrics, Segue curated playlists will contain songs that flow harmoniously together. Additionally, for those users who may not have complete music libraries, Segue allows users to select from an abundance of artists effortlessly and it will provide the curated transition playlist for them. Furthermore, Segue will expand on music theory concepts and aim to reach a diversity of genres; this will be done not only by machine learning algorithms but also by selective research. Utmost Segue will act as an extension to music service providers in the form of a mobile app; it will administer an enriching experience for music connoisseurs and casual listeners regardless of whichever streaming service they subscribe to.

Project Milestones:

1st semester:

- Project requirements/plan (October 18th)
- Project proposal video (October 28th)
- Finish researching programming tools (machine learning, react native, etc) (December 6th)
- Documentation (No specific due date; document as we design/implement)

2nd semester:

- Front end implementation (January 31st)
- Back end implementation (February 28th)
- Database installed (March 10th)
- Mobile app front-end styled (March 17th)
- Documentation (No specific due date; document as we design/implement)

Project Budget:

- Estimated cost: $192 for music subscription services (Spotify, Apple Music, SoundCloud Go, etc)
- Special training: machine learning and full stack
- Subscription services will be required for the whole lifetime of the project.

Work Plan:

Tony:

- Creating and storing user login info
- Research machine learning and full stack tools
- Implement ML algorithms and design backend
- Help style the front end
- Organize documentation

Pumposh:

- Configure web hosting & APIs on backend framework
- Help front-end design/development
- Design algorithms for song transitions

Ian:

- Design intuitive front-end
- Implement and style front-end
- Document use cases for front end
- Help design algorithmic logic for song transitions

Teddy:

- Research of music theory and ML libraries.
- Help create pages within the mobile application.
- Research proper backend that supports ML.

Herbert:

- Work with and implement machine learning framework
- Backend configuration
- Research on most optimal full stack to use
- Documentation help