**Capstone 1 (Step 2) Proposal:  
By Jet Martin**

**Project name: Not-Quite-Karaoke** (named so because the lyrics aren’t synched with the music like they would be on a Karaoke player/service)

**Project Description:** Have you ever watched a YouTube music video and wished that you could see the song’s lyrics while watching the video. Maybe it’s a new tune and you’re trying to decipher what the song is all about or maybe you’re looking to expand your song repertoire for your next big karaoke performance or maybe you just enjoy singing along with your new favorite song and you’d prefer not to hum through everything but the chorus.   
Whatever your interest may be, Not-Quite-Karaoke’s primary goal is to bring the music video and lyrics together for your convenience and pleasure.

Other potential features include providing: Artist musical biography, Album info (artwork, year released, sales data, chart info), links to other music videos by the artist, nearby concert dates for the artist, the ability to define playlist and save a video to the playlist.

**Feature details:**

1. User should be able to search (at minimum) for a YouTube video by Artist and/or Title. This will return a list of matched videos. An advanced search filter may also be available to further refine the video search criteria. (e.g., only search for official videos, etc.)
2. User should be able to select and then view/play one of the matched videos with the lyrics being displayed simultaneously on the screen adjacent to the video.
3. In addition to the viewing lyrics users will also be able to view “supplemental information” about the artists/album/song (e.g., Artist bio, Album info (e.g., name, when it was released, album art, other songs from the album w/link to videos of other songs, recent news about the artist, nearby concert dates, etc.)
4. A user will be presented with a list of other videos from that artist to possibly view next.
5. A user will be given the option to create an account (w/ login/password). If a user does opt to create an account, they will have an option to:
   1. Mark and save videos to their favorite “playlist”.
   2. Add comments to a video saved to their favorite list.
   3. Post a video within the app community along with their comments.
   4. View other community user’s video posts and view related comments.
   5. Ability to post the video and lyrics on social media

**Possible Data Sources**:

* YouTube as source for videos
* Music lyric service. Options include:
  + Lyricsgenius: **(**<https://github.com/johnwmillr/LyricsGenius>**);**
  + Lyrics and Music API **(**<https://docs.ksoft.si/api/lyrics-api>)
  + apiSeeds.com **(**<https://apiseeds.com/documentation/lyrics>**)**
  + music-story.com **(** <http://developers.music-story.com/developers> **)**
* Additional music information:
  + Musical biography profile - Wikipedia
  + Other news and Concert dates: TBD

**Database Tables/Schema (to be refined with ERD):**

* User (id, name, email)
* Playlist (id, name, description)
* Songs (id, title, artist, release date)
* Album (id, name, artwork)
* Artist (name,
* Lyrics (song
* ConcertSchedule
* FavoritesList()
* CommunityPosts()

**High Level User Flow:**

* If a user wants to perform any operations that will require saving data to their account (e.g., add video/lyrics to their favorites list, rate the video, etc.) then they will need to create a user account and be logged in…Otherwise they can use the app without requiring an account or being logged in.
* User enters song or artist information in search bar.
* This triggers a search for a matching video in YouTube and search for matching lyrics.
* If a matching video is found then the video will be displayed in the upper half of the screen with the lyrics beneath it in a scrollable window. Other “supplemental information will be display beside and below the lyrics sub-window.
* If no matching video is found then an appropriate message would be displayed and the lyrics (if found) would not be displayed. If a video is found but no matching lyrics are found then the video would be loaded with a note to indicate that no lyrics were found.
* After the video is completed a user can choose to replay the video again, enter a new search criteria or play a video from the “suggested” list of videos. If the user in logged in they could save the video/lyrics combo to their favorites list

**Beyond CRUD Features/Stretch Goals:**

* To fully implement all of the key features of this app it will require synchronizing data from multiple APIs.
* Stretch goals will be inclusion and synchronization of information sources beyond YouTube and a Lyrics API.
* Another stretch goal would be implementation of a community board for user to share, rate and comment on videos that have been posted to the community board.
* An extreme stretch goal would be to synchronize display of the lyrics as the artist sings the song. This would be