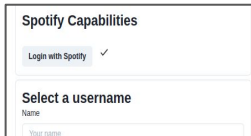


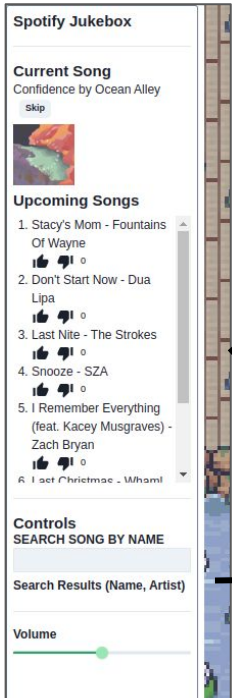
Demo and Source

Demo Site: <https://group403-jukebox-music.onrender.com/>
Source Code: <https://github.com/neu-cs4530/fall23-team-project-group-403>

Login With Spotify Account



Share Music While Chatting With Friends



Vote to affect song order



Search and add your favorite music!



Group 403: Jukebox

Jared Ritchie, Evan Gaus, Tyler Gilman, Julian Flack

Covey Town has always been a great platform, offering a virtual space for people to meet and interact just like real life. However, we couldn't help but notice a certain lack of excitement, a missing element that's essential to real life gatherings: music.

This is why we decided to introduce the Jukebox feature to Covey Town. The Jukebox, accessible via the left-side panel, allows all town members (who authenticate with Spotify) to share a musical experience, creating a true sense of community within the town. It leverages Spotify's powerful API to sync music for all members of a Covey Town, completely transforming the town's atmosphere. Users have the freedom to queue any song from Spotify's extensive library (that's right, any of the millions of songs available!)

The Jukebox doesn't stop there - all users can participate in shaping the musical environment of their town through the upvote and downvote features, democratically deciding which songs play next. And for those moments when a track doesn't quite hit the right note? Hit the skip button, life is too short for music that doesn't resonate!

With the Jukebox, we've added a new layer to social interaction with Covey Town. Whether it's breaking the ice with a favorite track, or bonding over shared music taste, the Jukebox makes every gathering with Covey Town not just a meeting, but a vibrant, shared celebration.

Technology Stack and Design:

We utilized the public Spotify API along with Firebase to manage user data and the music queue. The Spotify API facilitated user authentication via Spotify login, granting access to a web-based music player. It also enabled us to play music and search for songs within its database. We used Firebase and its real-time database functionality to maintain the song queue data for each town. This database contains essential information such as upcoming songs, song vote counts, and details about the current playing track. Each song is stored with pertinent details including its Spotify ID, duration, and album cover images, enabling us to handle song playback and display relevant information in the graphical user interface (GUI).

Future Work:

In future work, our project can be expanded adding more features such as a global Covey.Town Spotify page. Here we could track Covey.Town's most play songs, artist, and podcasts. Members of each towns could vote, comment, and recommend their favorite songs to the rest of Covey.Town. In this implementation we could create personalized queue recommendations based on a towns listening preference.

Another Jukebox feature that could be added is implementing a "Jukebox leader". In this implementation each town is assigned a single user who gets playback controls over the Jukebox. The leader can pause, play, or scrub through songs. This would allow the queue to pause or rewind music when needed, while still keeping everyone's Spotify player in sync. To implement this our backend would need to keep track of Covey.Town user information and manage the leader status when players create new towns, join, and leave to ensure there is always a valid leader