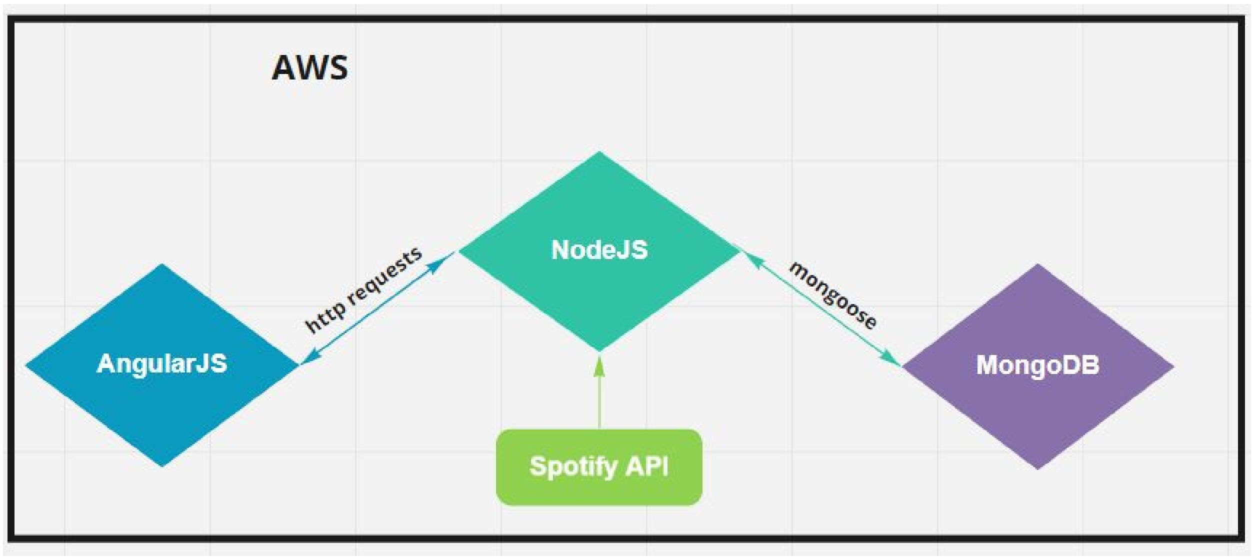
Team 206-4

Milestone 2

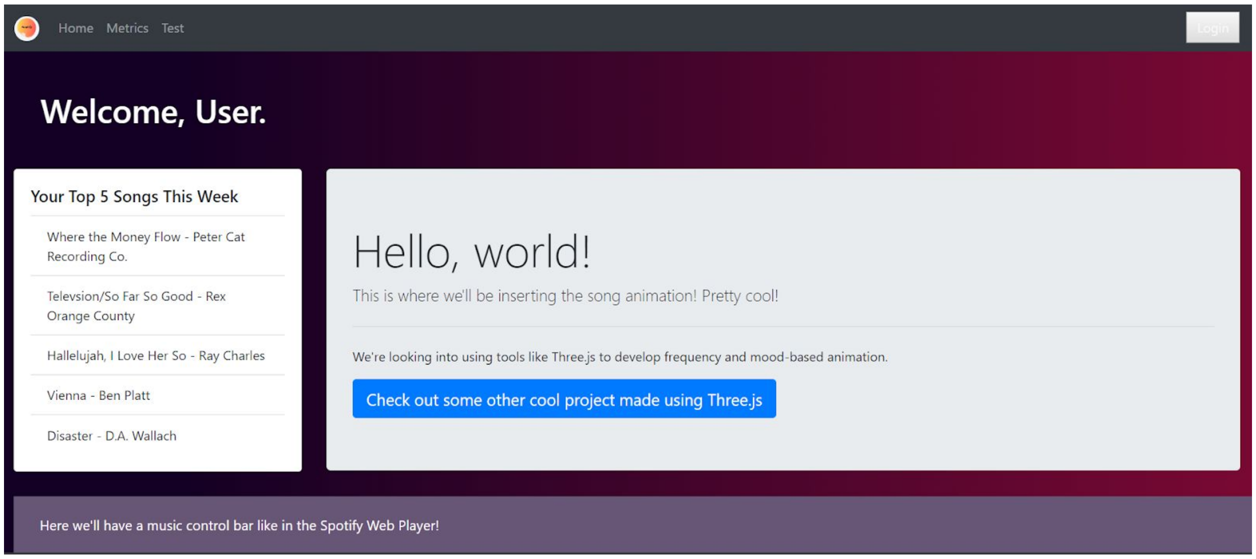
Revised Features (No Revisions)

- Login to website - high priority, completed
  - Input a username and password
- Connect to spotify API - high priority, completed
  - Use the Spotify API's built-in login function to keep a user logged in
- Play/access spotify library - high priority, in progress
  - Have a player that can play music from the users library
- Create the base website to work within - high priority, completed
  - Create a front end
- Integrate 3-D graphics for VR/AR visualization capability - medium priority, in progress
  - Create 3d visuals to go along with music in the player.
- Create Account - high priority, completed
  - Create an account to work with the Amplify website
- Integrate Song Visualization to Site - high priority, in progress
  - Connect the visualizer to the Amplify site
- Determine song visualization by mood and by frequency (Spotify feeling classifications) - low priority - to do
  - Use song metrics for moods provided by spotify API to provide info for the visualizer.
  - Use song metrics concerning music data to provide info for the visualizer.
- User metrics - medium priority, in progress
  - Show info regarding user plays and library construction
- Song metrics - medium priority, in progress
  - Obtain song specific data regarding characteristics (e.g. danceability) and use (e.g. plays per month)
- Integrate Metrics - medium priority, to do
  - Use metric data to show user listening habits
- Polish Website Design - medium priority, to do/ongoing
  - Make the website look and feel like it is well polished
  - Make sure mobile view stays working

Architecture Diagram



Front End Design



Welcome, User.

Your Top 5 Songs This Week

- Where the Money Flow - Peter Cat Recording Co.
- Televsion/So Far So Good - Rex Orange County
- Hallelujah, I Love Her So - Ray Charles
- Vienna - Ben Platt
- Disaster - D.A. Wallach

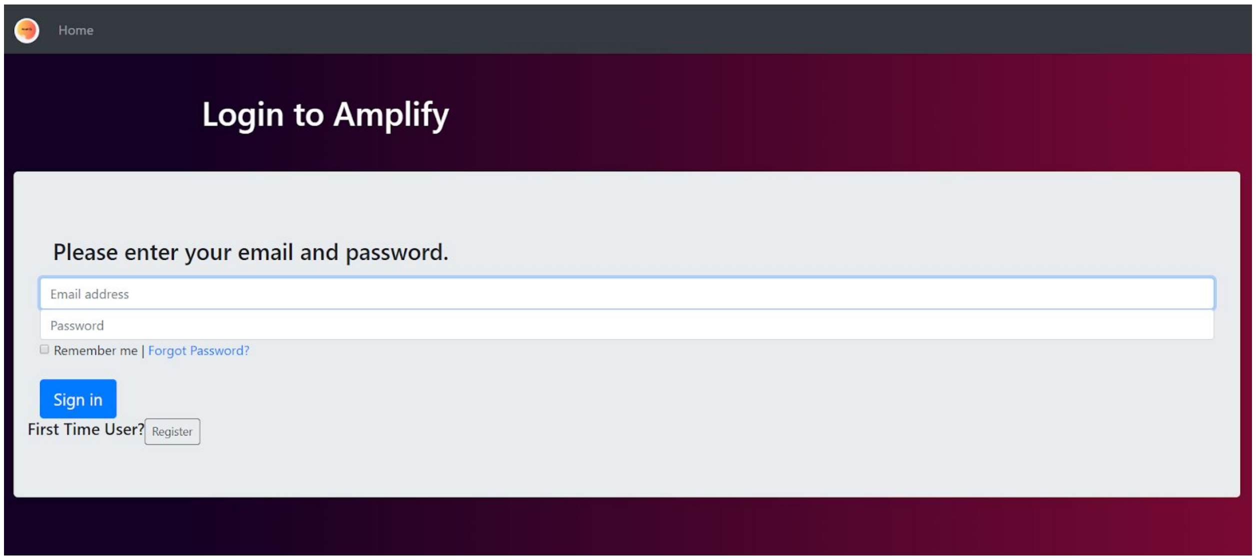
Hello, world!

This is where we'll be inserting the song animation! Pretty cool!

We're looking into using tools like Three.js to develop frequency and mood-based animation.

Check out some other cool project made using Three.js

Here we'll have a music control bar like in the Spotify Web Player!



Web Services Design

We pull data from the Spotify Web API and Web Playback SDK to both play songs and to gather metrics about the song and the user. We send IDs of artists and tracks to the API and it responds with information related to the track/artist or starts playing that music.

Database Design

We are using a MongoDB server to store user login info as well as the user's spotify credentials. This is stored in one collection (equivalent to a relational db table), and is currently all we are using the db for. In the future, we might implement a second collection to hold data about a specific user's app preferences and settings. The mongodb user document is structured as such:

```
{var UserSchema = new mongoose.Schema({
  email: {
    type: String,
    unique: true,
    required: true,
    trim: true
  },
  username: {
    type: String,
    unique: true,
    required: true,
    trim: true
  },
  password: {
    type: String,
    required: true,
  },
  spotifyUsername: {
    type: String,
    trim: true
  },
  spotifyPassword: {
    type: String
  }
});
```