1. **Project Details:**

   Team Name: DataBass

   Project Name: Back2Bassics

Team Coordinator:	Nathan Dow	nmd210001
Team Members:	Faissal Benelbar	fxb210008
	Liam George	ldg210001
	Zain Karim	zxk230017
	Riley McKinney	rhm220001

2. **Problem Statement:** Individual listener analytics are hard to come by, and getting less user friendly. This past year, Spotify, the popular music streaming app, outsourced its end-of-year analytics to an artificial intelligence software that failed to appease its customer base. This "Spotify Wrapped" left the majority of users feeling as if their musical tastes were poorly represented.

3. **Target Users:** The target users for our software are avid music listeners who are seeking to track their listening habits and see how their musical preferences compare to others. This can be Spotify users, but is not limited by the Spotify clientele.

4. **List of Relations:**

- **User:** user_id, username, Fname, Lname, email, password_hash, profile_pic, bio, time_joined, followers (derived), following (derived)
- **Follower/Following**: follower_user_id, following_user_id
- **Artist**: artist_ID, name, genres, popularity_score, profile_img
- **Albums**: ablum_ID, artist_ID, name, track_count, cover_img, release date, genre
- **Tracks**: track_ID, name, album_ID, artist_ID, explicit_flag, popularity_score
- **User_Ranking**: ranking_id, user_id, ranking_type (song, album, artist), stores ranked items as a list of ordered IDs of the correct type,
- **User_Favorites**: favorites_ID, user_ID, entity_type, time_stamp

5. **Web Interface:**
   a. User Profile Page: User name, profile picture, bio, follower count, following count, and list of all-time song rankings, secondary tab (not visible to other users) that features favorites. Button to add a song/album/artist to the ranking
   b. Social Page: Features rankings by recency of you and your followers, a simplified timeline
   c. Search Tab: search for other users by username, artists, songs, or album names.

6. **Data:** Data will be initially pulled from the Spotify API to build our database. In order to track popularity of songs, popularity trends will be pulled from the Spotify "popularity score", a metric built into the API based on current popularity. Song

metadata includes song name, song artist, album, genre, and release date. Song metadata included includes optional metrics like BPM, danceability, and energy.

User data will be manually entered by the user. Users will be able to rank their top songs, albums, or artists using a numeric scoring system (out of 10). Their ratings will then be displayed on their page and can be compared with other public users.