Group Name: BTS(ETJLAT)
Project Name: Top 100 Billboard Tracker

Members:
- Tejas Siddaramaiah
- Eric Tang
- Jason Lei
- Aiden Tan

Applications:
1. Billboard Application: Song Statistics about top 100 songs
2. Core Application: Basic CSS and Templates

Components:
1. Dashboard/Data Application:
  - Information on how to run the website and mentioning specific features.
  - Data about the song artist, title, rank, and other basic information
  - Graph showing how the song has risen and fallen in the top 100

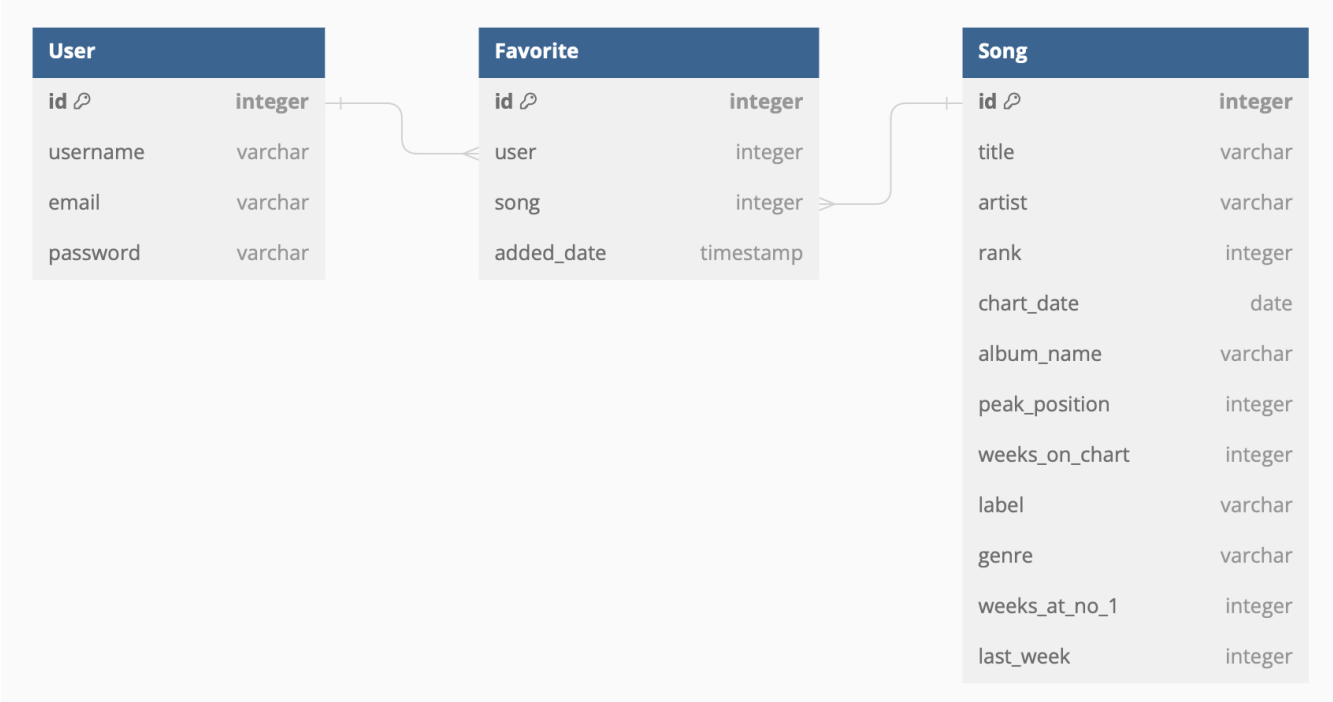
2. Search Application:
  - Active search bar to find specific songs and artists

3. Artist Search Application:
  - Search by artist name to find all their songs in the database

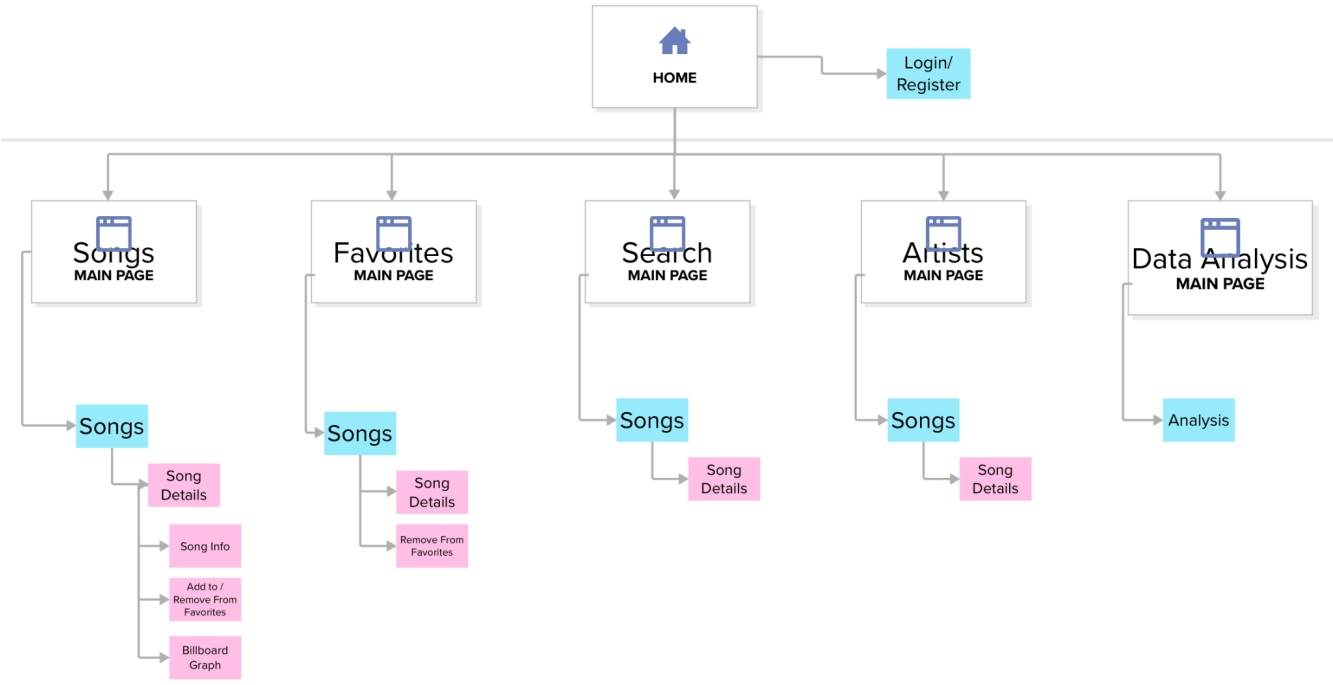
4. User Application:
  - System to add favorite songs for unique users.
  - Playlist for user with selected songs or artists

Relationships Between Components:
  - User Application uses the data from Data Application to display favorite songs based on saved preferences.
  - Search/Artist Application uses data from Data Application to actively search for similar information.

Database Design:



Site Map:



Task Breakdown:

1. Search Application: Jason, Eric, and Aiden
    - Display Song Info: All
    - Display Artist Info: All
2. Data Application: Tejas, Eric, Jason, and Aiden
    - Display Song Info: Eric and Tejas
    - Adding Mechanism: Tejas and Aiden
    - Display Graphs: All
3. User Application: Tejas and Aiden
    - Login/Register: Aiden and Tejas
    - Connecting to Account to Songs: Tejas

APIs

1.) Billboard API
    - API Documentation: https://rapidapi.com/LDVIN/api/billboard-api
    - Endpoints:
        - /hot-100: Fetches the current top 100 songs chart.
    - Usage:
        - The /charts endpoint will be used to retrieve the list of top 100 songs for displaying on the main page.
        - The /search endpoint allows users to find specific songs or artists in the top charts.
    - Data Handling:
        - The fetched data will be parsed and stored in the local database under the Songs table, which includes fields like Song ID, Title, Artist, Rank, and Date.

2.) Spotify API
    - API Documentation: https://rapidapi.com/Glavier/api/spotify23/
    - Endpoints:
        - /search: Searches for songs, albums, and artists using various filters.
    - Usage:
        - The /search endpoint allows users to search for music content by song name, artist, or album.
        - The /track endpoint provides detailed data on a specific track, including the song's duration, explicit content status, popularity, and etc.
    - Data Handling:
        - Data from the /search endpoint will be utilized to display search results to users, allowing them to explore different songs, albums, or artists based on their search criteria.