

Final Project Schema and Interaction:

Song Maker: *stores user information,*

- User_ID (Primary Key)
- Username
- Email

Songs: *Contains all song details, including links to genres, moods, and user data.*

- Song_ID (Primary Key)
- Title
- Dancabilities
- BPM
- User_ID (foreign Key)
- Genre_ID (foreign Key)
- Key_ID (foreign Key)
- Creation_Date
- Released Status
- lyrics
- timing (4/4...)

Genres: *lists all available music genres to categorize songs*

- Genre_ID (Primary Key)
- Name

Musical_Keys: *contains information about different musical keys and their associated mood*

- Key_ID (Primary Key)
- Name
- Note1
- Note2
- Note3
- Note4
- Note5
- Note6
- Note7
- Mood_ID (foreign key)

Instrument track: stores individual instrument tracks that can be used to create or modify songs

- *Instrument_ID (Primary Key)*
- *Name*
- *Ethnic_Influence (Afro, Latin, Asian)*
- **chord progression**
- *timing*
- *song_ID (foreign Key)*
- *Mood_ID(foreign Key)*

Mood: lists moods to describe the emotional tone of songs

- *Mood_ID*
- *Name*

User Interactions

Searching Songs by Genre, artist, titles

- *This allows users to filter songs within a specific genre. The interaction uses the Genre table to retrieve songs associated with the chosen genre.*

Selecting Songs Based on Mood

- *users can select songs that match a specific mood. This feature uses the mood table to filter songs tagged with the selected mood.*

Creating a New Song

- *Generate a new song by randomly combining musical elements from other songs. It selects random entries from the Instrument Tracks and Songs tables to create a new, unique composition, depending on the mood, and genre they want.*

Transposing a Song

- *Allow the users to change the key of a song. update the song's key in the Musical Keys table. and change*

