

CST8285- GROUP LAB ASSIGNMENT2



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1 Music box Functionality Guide

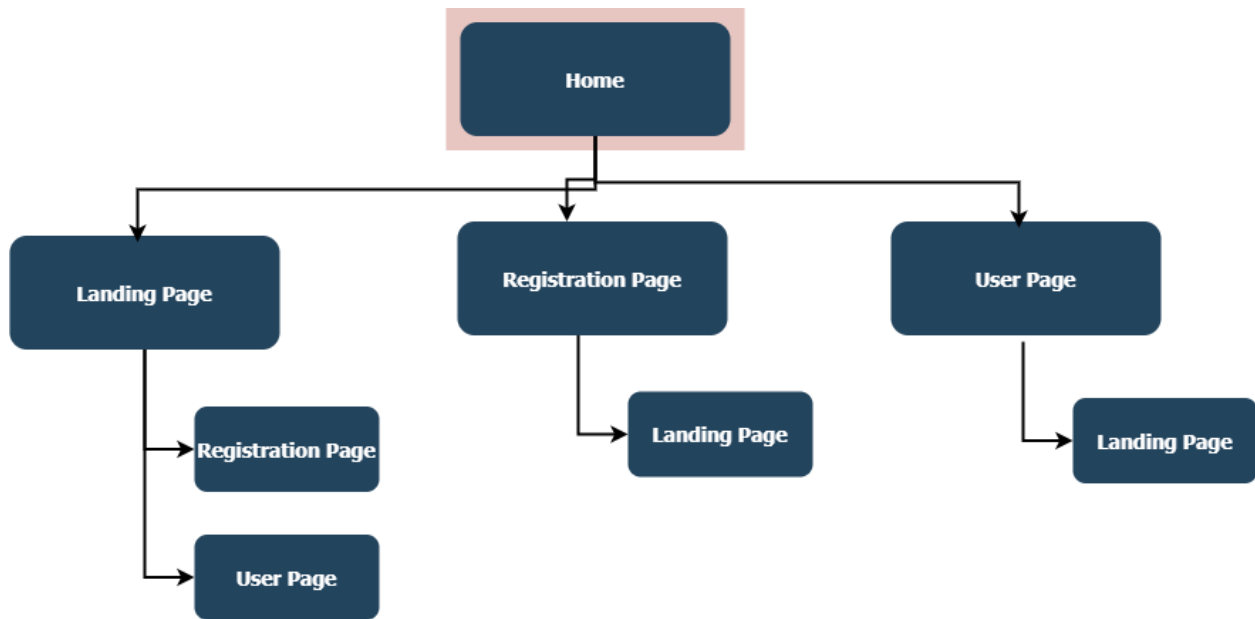


Figure 1:Site Map

MusicBox Registration Page Functionality:

- New users can sign up with a username, email, and password.
- Form validation ensures accurate information.
- Users must agree to terms and conditions to proceed.
- The submit button creates the MusicBox account.

MusicBox

Sign-Up MusicBox

User Name

Email Address

Password

Re-type Password

☐ I agree to the terms and conditions

Figure 2: Sign-up Page

Login Page:

- Users can log in with their email/username and password.
- Form validation is performed before submission.
- New users can access the Sign-Up Page.

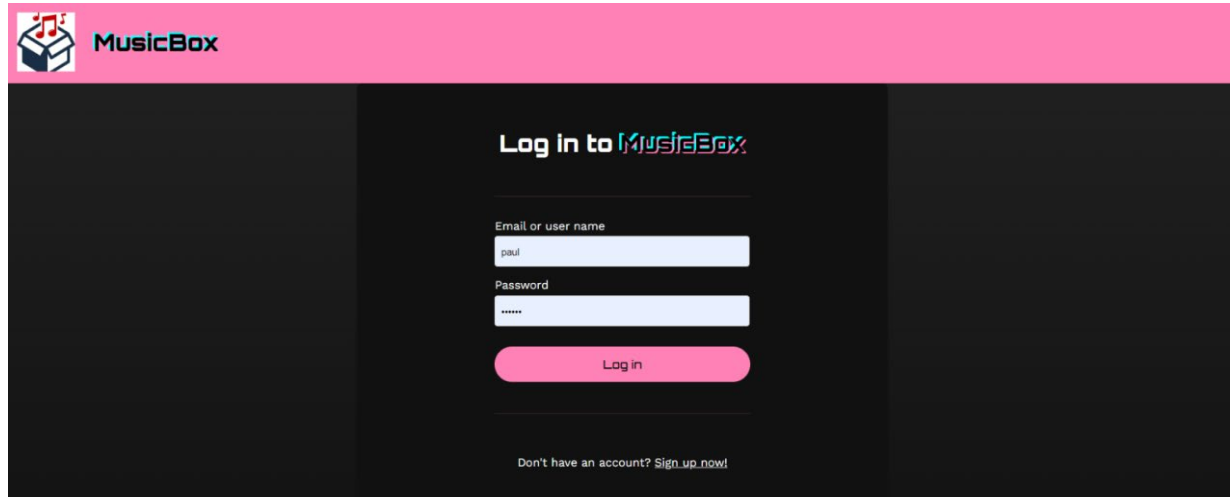
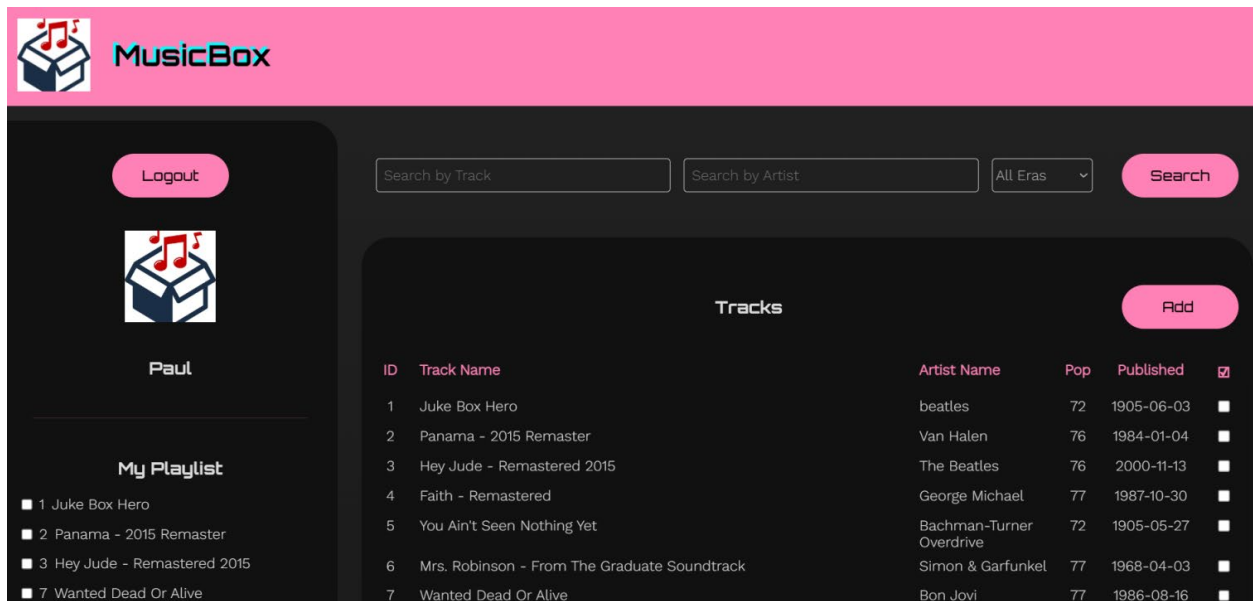


Figure 3:Landing Page

User Page:

- Users can manage their playlist.
- Search for tracks by name or artist and filter by era.
- Add selected tracks to their playlist.
- Remove tracks from their playlist.



| ID | Track Name | Artist Name | Pop | Published | |
|----|--|--------------------------|-----|------------|---|
| 1 | Juke Box Hero | beatles | 72 | 1905-06-03 | ■ |
| 2 | Panama - 2015 Remaster | Van Halen | 76 | 1984-01-04 | ■ |
| 3 | Hey Jude - Remastered 2015 | The Beatles | 76 | 2000-11-13 | ■ |
| 4 | Faith - Remastered | George Michael | 77 | 1987-10-30 | ■ |
| 5 | You Ain't Seen Nothing Yet | Bachman-Turner Overdrive | 72 | 1905-05-27 | ■ |
| 6 | Mrs. Robinson - From The Graduate Soundtrack | Simon & Garfunkel | 77 | 1968-04-03 | ■ |
| 7 | Wanted Dead Or Alive | Bon Jovi | 77 | 1986-08-16 | ■ |

Figure 4:User Page

2 Description of database

1. Users Table:

ID: Unique identifier for each user.

Username: Username for the user's account.

Password: Password for the user's account.

Email: Email associated with the account.

2. Tracks Table:

ID: Unique identifier for each track (Primary Key).

Name: Name of the track.

Artist: Name of the artist who performed the track.

Duration: Length of the track, typically measured in seconds or minutes.

ReleaseDate: Date when the track was released, often used for filtering.

3. Tracks_Playlist Table:

ID: Unique identifier for each entry.

UserID: Reference to the user who owns the playlist.

TrackID: Reference to the track in the playlist.

Relationships:

The Tracks_Playlist table acts as a many-to-many relationship between Users and Tracks, allowing a single track to be part of multiple playlists and a single user to have one playlist with multiple tracks.

Indices and Constraints:

Proper indexing on the ID fields to ensure efficient searching and retrieval.

Foreign key constraints on UserID and TrackID in the Tracks_Playlist table to maintain referential integrity.

Potential unique constraints on the Username and Email fields in the Users table to ensure that each user has a unique username and email address.

This schema supports the basic functionality required for a music application, including user management, track information, and playlist management. It can be extended and refined to accommodate additional features and requirements as the Music Box application grows and evolves.