

Project Proposal: SkipBeatTi

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Project Overview

While popular platforms like Spotify offer a seamless listening experience, they fall short in providing meaningful ways for users to engage with one another beyond basic interactions such as collaborative playlist creation. Our team will be developing a web-based application called SkipBeatTi—a social and interactive platform for music enthusiasts that aims to bridge this gap and enhance the social aspect of music. Like traditional music streaming platforms, our app allows users to search and select songs from a diverse library of artists, and curate their own personalized or create collaborative playlists with their friends. SkipBeatTi also introduces new features that allows users to rate songs on a scale of 1 to 5 and leave personalized comments for each track, both of which are visible to the entire SkipBeatTi community. This emphasis on community makes SkipBeatTi a unique and innovative addition to the music streaming landscape.

Functional Requirements

1. Users
 - a. Users shall be able to create an account with username and password
 - b. Users shall be able to log in
 - c. Users shall be able to edit their personal information such as name, username, password, email, birthdate, and profile photo
2. Friend
 - a. Users shall be able to follow other users and be friends with them
 - b. Users shall be able to view the songs that a friend is currently playing
 - c. Users shall be able to view other user's total follower count
3. Songs
 - a. Users shall be able to play a song
 - b. Users shall be able to pause current playing song
 - c. Users shall be able to skip current playing song
 - d. Users shall be able to listen to a song on repeat infinitely
 - e. Users shall be able to listen to a album on repeat infinitely
 - f. Users shall be able to see the album where the song is from

- g. Users shall be able to see song duration
- 4. Queue
 - a. Users shall be able to shuffle songs in the queue
 - b. Users shall be able to move songs up or down in the queue
 - c. Users shall be able to add multiple songs to a queue
- 5. Artists
 - a. Users shall be able to view Artist's page with list of top songs & albums
 - b. Users shall be able to view Artist's songs
 - c. Users shall be able to view Artist's albums
 - d. Users shall be able to view Artist's description
- 6. Albums
 - a. Users shall be able to view albums containing a list of songs
 - b. Users shall be able to play songs in an album in chronological order
 - c. Users shall be able to queue all the songs in an album at once
- 7. Playlists
 - a. There are two types of playlist: Personal and Collaborative
 - b. Users shall be able to create, edit, and delete personal playlists
 - c. Users shall only be able to view other user's personal playlists and not edit
 - d. Users shall be able to create a collaborative playlist by inviting friends to a playlist. Users and friends can populate the collaborative playlist with songs
- 8. Genre
 - a. Users shall be able to search for a genre and view a list of songs within that genre
- 9. Rating
 - a. Users shall be able to rate on a scale of 1 to 5 stars for a currently playing song
 - b. Users shall be able to see total user ratings on songs
- 10. Comments
 - a. Users shall be able to write text comments for a currently playing song
- 11. Photo
 - a. Songs shall be associated with an album cover photo
 - b. Playlists shall have a playlist cover photo
 - c. Albums shall have a cover photo

- d. Users shall be able have a profile picture

Non-functional Requirements

1. **Performance:** Query execution time shall be < 2 seconds
2. **Scalable:** The application should be able to handle up to 1,000 concurrent user logins and registrations without significant increase in response times
3. **Secure:** Application will implement role-based access control, where the admin can edit the database of songs & artists
4. **Compatibility:** Application will be usable on multiple different platforms such as Google Chrome, Mozilla Firefox, and Safari
5. **User-friendly Design:** Application will have a simple, and intuitive interface