UML Report

Musicify - Music Stream app

TEAM MUSIFICY

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Introduction

Musicify is an online music streaming apps. It features basic music streaming functionality and stream music online. An online state of last played song and length of that song. In Musicify a user can discover songs from various countries and types. They can follow their favorite artist, listen to their favorite genre songs. User can create their playlist from the app. An artist can have an album that belongs to a genre. Users can discover music more easily through the app. AI-based music recommendation suggests songs that he may like.

Features:

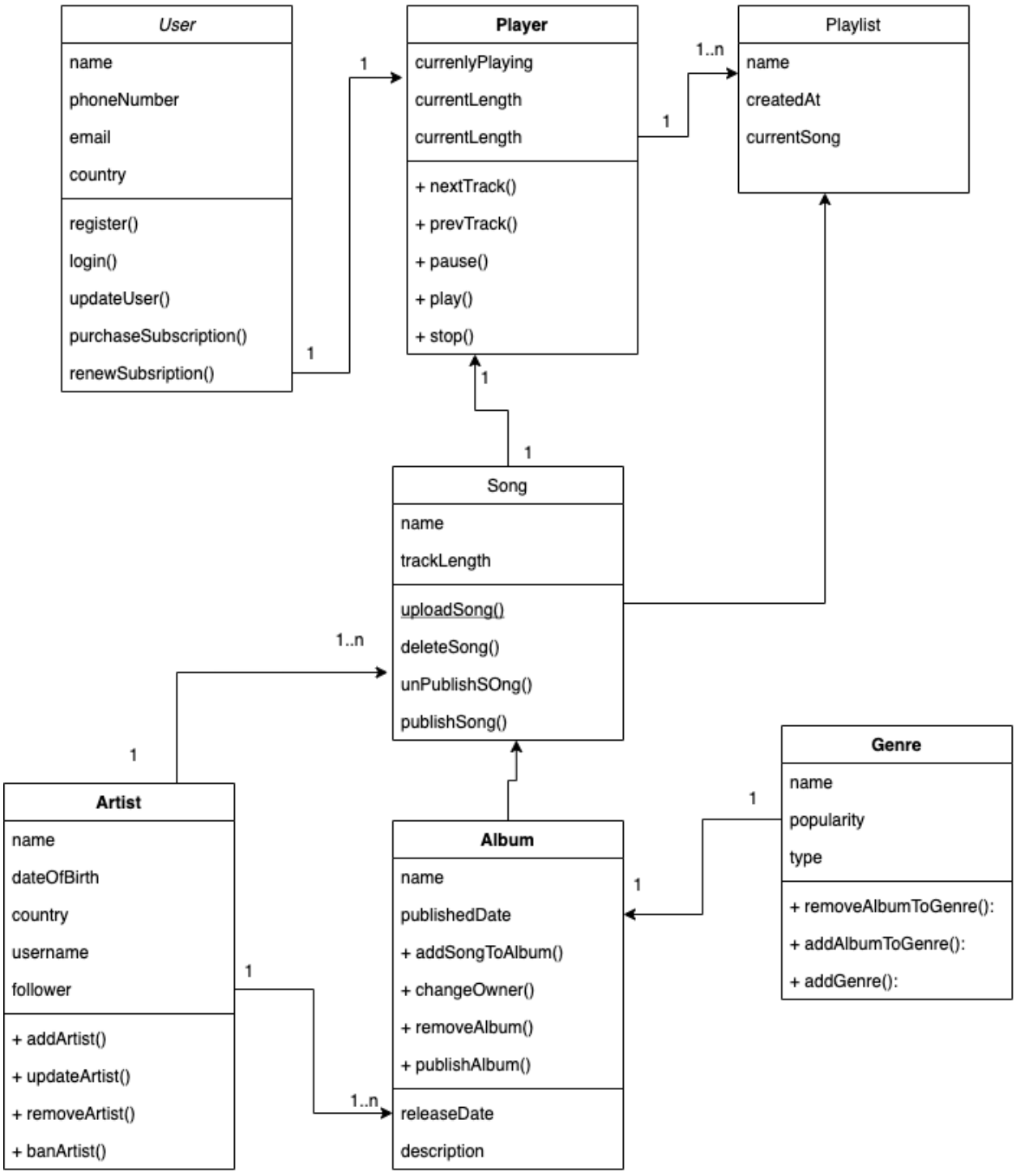
- Online music streaming app with playback support
- Saved the player state to the database and load even if another device connected
- Give prediction based music from the recently played song
- User can choose their favorite artist and follow them for a new song
- Various genres of music can be played
- User can play unlimited songs if subscription availed

Class Diagram

This class diagram shows the model of online-based music streaming app musicality.

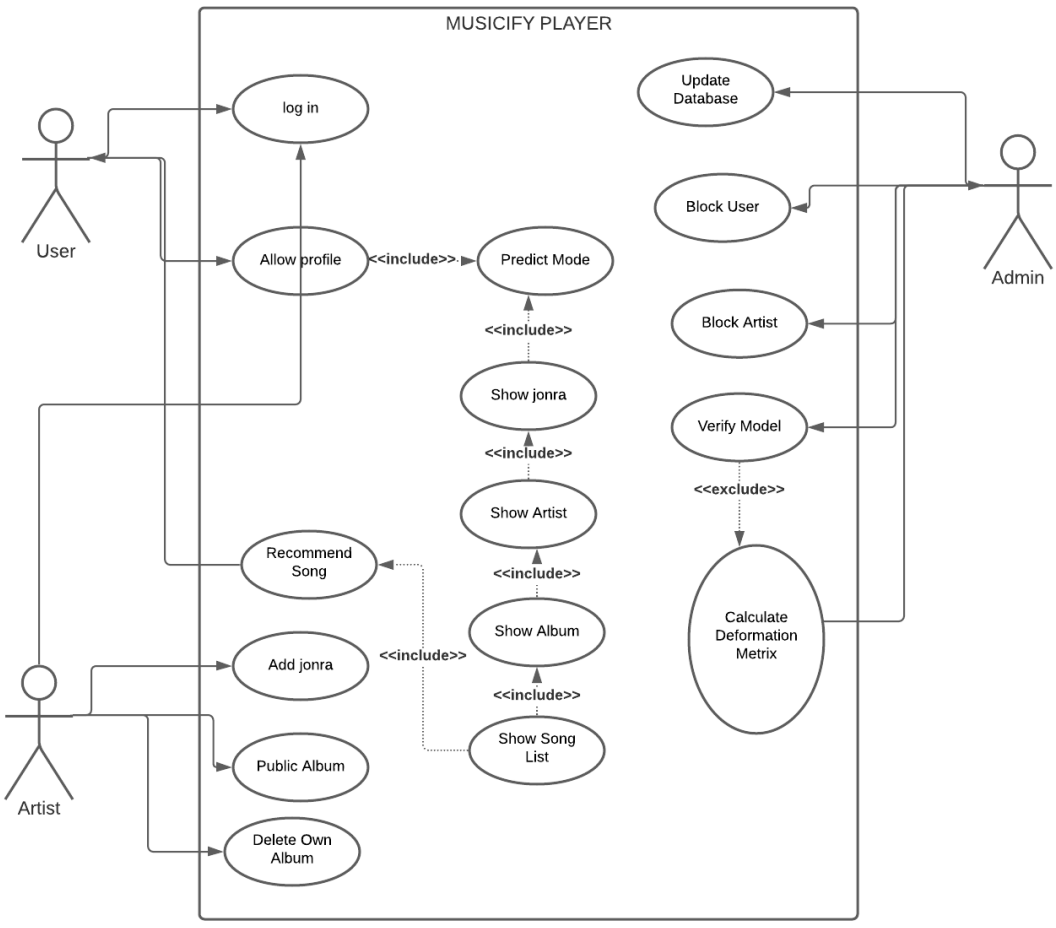
A user can have an online player that saves current music data and player data on the database. Users can log back in and see the last played song and its length. A user can create multiple playlists from the player app. Music Player can stream a song once a time. While a playlist could have multiple songs to it. An artist can publish or unpublish many songs. An artist can have multiple albums. An album could have multiple songs. An album belongs to one genre.

Musificy - Online Music Stream app UML class Diagram



Use Case Diagram

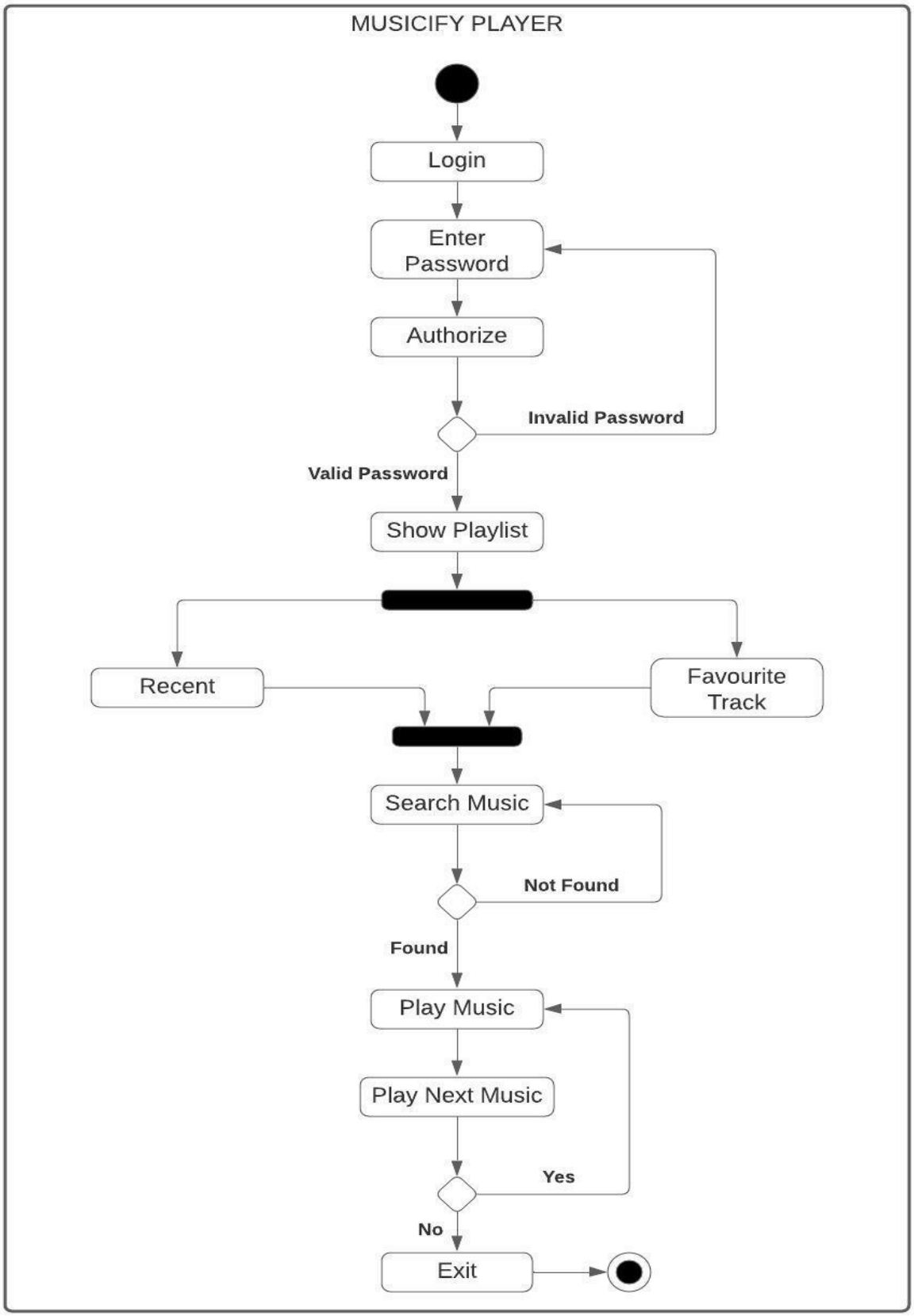
A user can log in, select register, show recommended songs via prediction based on his selection genre, artist, album. The user can get recommendations from the previous music that he played. An artist can publish songs, albums assign to a genre. Admin can control users like update user, block and user, block an artist from publishing music, verify the model using deformation matrix.



Activity Diagram

In the activity diagram shows the Musicify application.

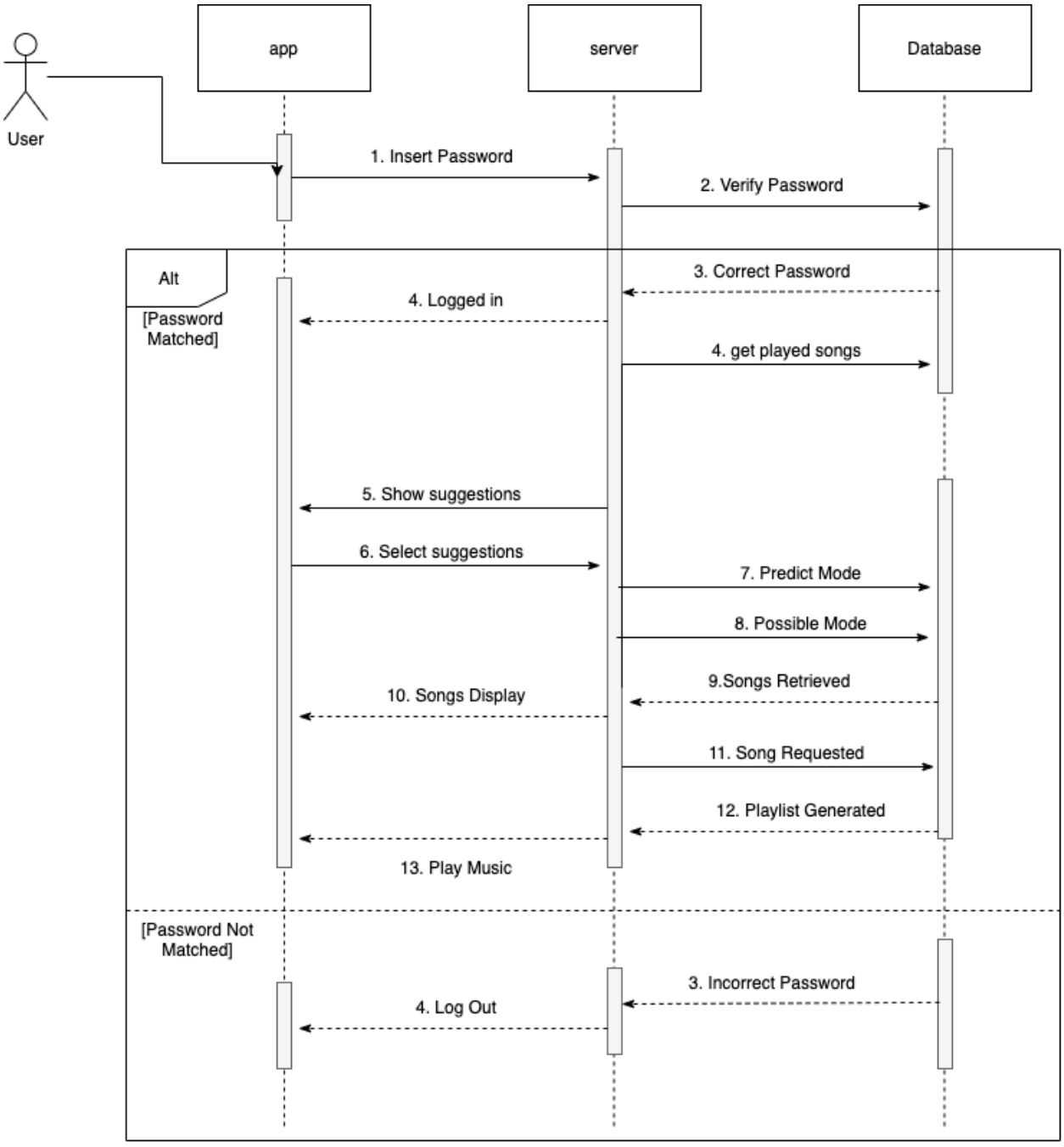
In the app the user logs in using a password. If your user authentication failed, return the login screen if the valid password shows the playlist of that user from the fetching database. If the user selects the recent tab then shows the recent track he played. Users can search for music from the app or directly play the music. If music ends or selects the next music then prompt to next song or exits the player.


MUSICIFY PLAYER
Login
Enter Password
Authorize
Invalid Password
Valid Password
Show Playlist
Recent
Favourite Track
Search Music
Not Found
Found
Play Music
Play Next Music
Yes
No
Exit

Sequence Diagram

The sequence diagram shows song recommendations from the database. The user may have songs played recently. All songs will be fetched from the database and processed the user recommended playlist.

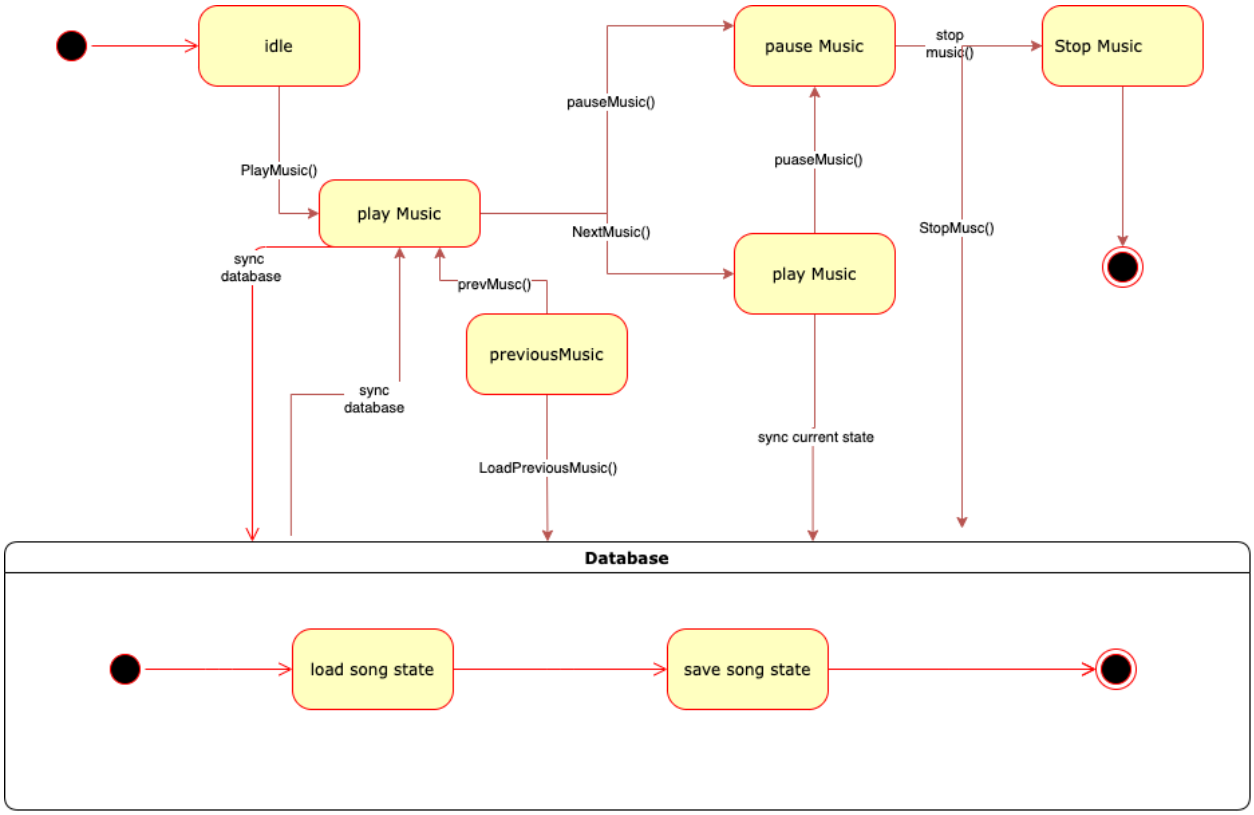
A user inserts a password from the app server to verify the password from the database. if the user authenticated server requests the user's recently played songs. The server sends a response to the app client. App client shows suggestions and after the user selects the suggestions it sends them to the server. The server predicts user songs, in possible or predict mode and then returns the songs in response. Users request the songs to be played, and the server generates a playlist based on user preference and plays the music. Else user gets logged out from the app.


User
app
server
Database
1. Insert Password
2. Verify Password
Alt
[Password Matched]
3. Correct Password
4. Logged in
4. get played songs
5. Show suggestions
6. Select suggestions
7. Predict Mode
8. Possible Mode
9.Songs Retrieved
10. Songs Display
11. Song Requested
12. Playlist Generated
13. Play Music
[Password Not Matched]
3. Incorrect Password
4. Log Out

State Chart Diagram

Statechart diagram shows how an online music player keeps in sync with the local player. When the music player loads, it fetches the song state from the database.

When events like nextMusic() or prevMusic() are triggered, the database returns the music and loads it into the state while keeping track of the current music state. When music is changed, the change is saved to the database too so that the user can log in to another device and play the music from the saved state of the track. When music is stopped before the app closes, the database keeps track of the length of the music and also the music state to the database.



Conclusion

In the modern age, music is one of the best ways to enjoy some moments and memories. Online streaming apps let us listen to any music from anywhere and discover new songs easily. Musicify app can help the new artist to grow their fan base. While this streaming app can prevent options piracy.