RYTHMIC TUNES

Your melodic Companion

2:25 ━━━━━━━━━━━━━━━ −0:53

RYTHMIC TUNES

1.Introduction

- **Project title:**Rythmic tunes
- **Team I'D: NM2025TMID36446**
- **Team leader:**Alia fathima(aliafathima91@gmail.com)
- **Team Members:**

  Alia fathima. S(aliafathima91@gmail.com

  Saajitha. N(saajitha230@gmail.com)

  Abinaya.M(abinayamurugan171@gmail.com)

  Kasthuri.P(kasthuripanneerselvam08@gmail.com)

2.project overview

- **Purpose:**

  Rythmic Tunes is a music streaming and recomendation platform that connects users with songs, playlists and artists. It allows personalized music recommendations, playlist creation, and social sharing of favorite tracks.

- **Features:**
- Play /pause button -allow users to start or stop the selected songs.
- Searchbar- Helps users quickly find a song from the playlist.
- Favourite Button-lets users mark Songs they like for easy access later.
- Playlist section-Displays available songs in an organized list.
- Clean & Responsive Design-styled with CSS for a visually appealing look.

Favourite Button-lets users mark Songs they like for easy access later.

Playlist section-Displays available songs in an organized list.

Clean & Responsive Design-styled with CSS for a visually appealing look.

3.Architecture:

- **Frontend**: React.js with Tailwind CSS / Material UI for responsive design
- **Backend**: Node.js and Express.js for API handling and server logic
- **Database**: MongoDB for user data, playlists, track information, and interactions
- **Additional services:**

  ->Cloud storage for audio files.

  ->AI/ML models for recommendation engine.

4.Setup Instructions

- **Prerequisites**:

Node.js

MongoDB

[Optional: Cloud Storage API / ML library]

- **Installation steps:**

```
# Clone the repository
git clone <your-repo-url>
# Install client dependencies
cd client
npm install

# Install server dependencies
cd ../server
npm install
```

5. Folder Structure:

```
Rhythmic-Tunes/
Rhythmic-Tunes/
|_ client/          # React frontend
| |_ components/
| |_ pages/
|
|_ server/          # Node.js backend
   |_ routes/
   |_ models/
   |_ controllers/
```

6. Running the Application:
- **Frontend:**
    cd client
      npm start
- **Backend:**
    cd server
    npm start
- **Access:** Visit http://localhost:3000

7. API documentation:

- **User:**

/api/user/register

  /api/user/login

- **Songs:**

/api/songs → Get all songs

  /api/songs/:id → Get song by ID

/api/songs/upload → Upload new song

- **Playlists:**

/api/playlists → Get all playlists

  /api/playlists/create → Create a playlist

/api/playlists/:id → Get playlist by ID

8.Authentication:

Rhythmic Tunes means verifying user identity so only authorized

people can access the app or service. It's usually done with:

Login credentials (email/username + password)

Tokens (JWT, OAuth) for secure session management

Multi-factor authentication (MFA) for extra security

In short: it ensures that users of *Rhythmic Tunes* are genuine and have the right access

9.User Interface:

- **Login/Signup:** Simple, quick access with social logins.
- **Home:** Search bar + trending playlists + recommendations.
- **Now Playing:** Big album art, play controls, progress bar.
- **Library:** Favorites, playlists, downloads, filter options.
- **Profile/Settings:** User info, themes, account security, Clean, minimal,

dark-mode friendly with smooth navigation.

10.Testing:

- **Functional** - check login, search, play/pause, playlists.
- **UI/UX** - smooth navigation, responsive design.
- **Performance** - fast streaming, no lag under load.
- **Security** - safe login, data protection.
- **User Acceptance** - real user feedback on experience.

In short: make sure features work, design is smooth, app is fast, secure, and user-friendly.

- **Functional** – check login, search, play/pause, playlists.
- **UI/UX** – smooth navigation, responsive design.
- **Performance** – fast streaming, no lag under load.
- **Security** – safe login, data protection.
- **User Acceptance** – real user feedback on experience.

In short: make sure features work, design is smooth, app is fast, secure, and user-friendly.

11.Conclusion:

Rhythmic tunes create a sense of flow, energy, and structure in music. They guide movement, evoke emotions, and connect the listener to the beat, making the experience engaging and memorable.