**Rhythamic Tunes - Project Documentation**

**Introduction**

**Project Title:** Rhythamic Tunes

**Team Members:**

**Team Leader :** SRINATH R

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**Project Overview**

**Purpose:**  
Rhythamic Tunes is a music web application built with React.js that allows users to browse, search, and manage their favorite songs, playlists, and wishlists with an intuitive interface.

**Features:**

* Browse and play songs
* Create and manage playlists
* Add songs to favorites and wishlist
* Search functionality
* Responsive sidebar navigation
* Integration with a mock backend (JSON Server)

**Architecture**

**Component Structure:**  
The application is organized into reusable components such as **Sidebar, Songs, Playlist, Favorites, Wishlist, Search, and Navbar**.  
App.jsx manages the main layout and routing.

**State Management:**

* Local state with React hooks (useState, useEffect)
* Global state with **Context API**

**Routing:**  
React Router v6 is used for navigation between Home, Playlists, Favorites, Wishlist, and Search pages.

**Setup Instructions**

**Prerequisites:**

* Node.js (>= 16)
* npm (>= 8)

**Installation:**

1. Clone the repository
2. Navigate to the project folder
3. Run npm install
4. Run npm run dev to start the development server
5. (Optional) Run npx json-server --watch db/db.json --port 5000 to start the mock backend

**Folder Structure**

src/

- App.jsx (Main component)

- main.jsx (Entry point)

- Components/ (Sidebar, Songs, Playlist, Favorites, Wishlist, Navbar, Search, etc.)

public/ (Static assets, songs)

db/ (Mock database for songs)

**Components**

* **Sidebar:** Handles navigation
* **Songs:** Displays available songs
* **Playlist:** Manages user playlists
* **Favorites:** Shows favorite tracks
* **Wishlist:** Tracks songs to listen later
* **Search:** Filters songs
* **Navbar:** Provides top navigation

**Styling**

* TailwindCSS and Bootstrap are used for responsive design.
* React Icons provide iconography.

**Known Issues**

* Some songs may not play in certain browsers due to audio format compatibility.

**Future Enhancements**

* Dark mode support
* User authentication for personalized playlists
* Integration with real music APIs (Spotify, YouTube)
* Improved animations and transitions

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