**FitFlex - Fitness App with React.js**

**Project Documentation**

**Introduction**

* + **Project Title**: FITFLEX
  + **Team Members**:

|  |  |  |
| --- | --- | --- |
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**1. Project Overview**

**Purpose**

**Rhythmic Tunes is a modern music streaming application designed to provide users with an easy-to-use platform for discovering, playing, and organizing their favorite songs. The goal is to create a seamless and enjoyable music listening experience.**

**Features**

* **🎵 Stream and play music directly in the browser**
* **📂 Organize songs into playlists**
* **❤️ Wishlist feature to favorite songs**
* **🔍 Search songs by title**
* **📂 Simple and clean UI with sidebar navigation**
* **🎨 Dark mode support**
* **🚀 Fast performance using Vite & React**

**2. Architecture**

**Component Structure**

* **Sidebar.jsx → Navigation for Songs, Playlists, Wishlist, Search**
* **Songs.jsx → Displays all available songs**
* **Playlist.jsx → Allows users to create and manage playlists**
* **Wishlist.jsx → Saves user’s favorite songs**
* **Search.jsx → Search functionality for songs**

**State Management**

**Rhythmic Tunes uses React useState & useContext for managing playlists, songs, and user preferences efficiently.**

**Routing**

**React Router is used to handle navigation between different pages (Songs, Playlists, Wishlist, Search).**

**3. Setup Instructions**

**Prerequisites**

* **Node.js (Latest LTS version)**
* **npm or yarn**

**Installation**

1. **git link** https://github.com/[Sibiraj13/Rhythmic-Tunes](https://github.com/Sibiraj13/Rhythmic-Tunes)
2. Clone the repository:

git clone [[Sibiraj13/Rhythmic-Tunes](https://github.com/Sibiraj13/Rhythmic-Tunes)]

1. Navigate to the project directory:

cd rhythmic-tunes

1. Install dependencies:

npm install

1. Start the development server:

npm run dev

**4. Folder Structure**

**/public**

**├── songs/ # Stores MP3 files**

**/src**

**├── components/ # Reusable React components**

**│ ├── Sidebar.jsx # Sidebar navigation**

**│ ├── Songs.jsx # Displays song list**

**│ ├── Playlist.jsx # Manage playlists**

**│ ├── Wishlist.jsx # Save favorite songs**

**│ ├── Search.jsx # Search functionality**

**│ ├── Player.jsx # Music player**

**├── App.jsx # Main application component**

**├── main.jsx # React entry point**

**├── index.css # Global styles**

**/package.json # Project dependencies**

**/vite.config.js # Vite configuration**

**/index.html # Main HTML file**

**5. Running the Application**

**Start the React app:**

**npm run dev**

**6. Component Documentation**

**Key Components**

**Player.jsx - Music Player Component**

* **Props: songSrc, isPlaying, onPlay, onPause**
* **Description: Handles music playback with controls for play, pause, and next.**

**Songs.jsx - Song List Component**

* **Props: songs**
* **Description: Displays a list of songs fetched from db.json.**

**Sidebar.jsx - Sidebar Navigation**

* **Props: None**
* **Description: Provides navigation for different pages (Songs, Playlist, Wishlist, Search).**

**7. State Management**

**Global State**

* **Managed using React Context API for playlist and favorites.**

**Local State**

* **Uses useState for UI interactions like toggling play/pause.**

**8. User Interface**

**(check the reference video)**

[**Rhythmic-Tunes/Reference Videos at main · Sibiraj13/Rhythmic-Tunes**](https://github.com/Sibiraj13/Rhythmic-Tunes/tree/main/Reference%20Videos)

**9. Styling**

**CSS Frameworks/Libraries**

* **Tailwind CSS for styling.**

**Theming**

* **Dark mode support using React Context.**

**10. Testing**

**Testing Strategy**

* **Jest and React Testing Library for unit tests.**

**11. Screenshots or Demo**

[Rhythmic-Tunes/Reference Videos at main · Sibiraj13/Rhythmic-Tunes](https://github.com/Sibiraj13/Rhythmic-Tunes/tree/main/Reference%20Videos)

**12. Known Issues**

* **Songs do not persist after page reload (needs backend or local storage).**
* **Playlist functionality is basic and can be improved.**

**13. Future Enhancements**

* **🔥 Add backend support for user authentication**
* **📡 Stream songs from an external API instead of local files**