

# Project Documentation

## Project Title

RhythmicTunes: Your Melodic Companion

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## 1. Introduction

- **Project Title:** RhythmicTunes: Your Melodic Companion
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## 2. Project Overview

### Purpose:

RhythmicTunes is a music streaming application designed to provide users with a seamless, personalized, and immersive musical experience. Built with React.js, it allows music enthusiasts to explore, play, and organize tracks while managing playlists and favorites efficiently.

### Features:

- Music discovery and search functionality
- Playlist creation and management

- Favorites (Wishlist) management
  - Audio playback with one-track-at-a-time control
  - Responsive UI with Bootstrap/Tailwind CSS
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### 3. Architecture

- **Frontend:** React.js with Bootstrap / Tailwind CSS and React Icons
  - **Backend:** JSON Server (mock API for songs, playlists, and favorites)
  - **Database:** JSON file (`db.json`) storing songs, playlists, and favorites
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### 4. Setup Instructions

#### Prerequisites:

- Node.js and npm
- React.js
- Git
- Visual Studio Code
- JSON Server

#### Installation Steps:

```
# Clone the repository  
git clone <repo-link>
```

```
# Install client dependencies  
cd tunes  
npm install
```

```
# Start React development server
npm start
```

```
# Start JSON server
json-server --watch ./db/db.json
```

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## 5. Folder Structure

```
RhythmicTunes/
|-- node_modules/      # Dependencies
|-- public/            # Static files (index.html, favicon, images)
|-- src/               # Source code
|   |-- assets/        # Images, icons, fonts
|   |-- components/    # Reusable components
|   |-- pages/         # Page-level components
|   |-- services/      # API and helper functions
|   |-- App.js         # Root component with routes
|   |-- App.css        # Global styles
|   |-- index.js       # Entry point
|-- db/                # JSON server data (db.json)
|-- package.json       # Project metadata and dependencies
|-- README.md          # Documentation
```

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## 6. Running the Application

### Frontend:

```
cd tunes
npm start
```

### Backend (JSON Server):

```
cd db
json-server --watch db.json
```

**Access:** Visit <http://localhost:3000>

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## 7. API Documentation

**Songs:**

- `GET /items`

**Favorites:**

- `GET /favorites`
- `POST /favorites`
- `DELETE /favorites/:id`

**Playlists:**

- `GET /playlist`
  - `POST /playlist`
  - `DELETE /playlist/:id`
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## 8. Authentication

- Not applicable for this version (future enhancement planned for user accounts and secure login).
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## 9. User Interface

- Landing Page with Hero Section
  - Songs List Page with Search
  - Playlist Page (create, add/remove songs)
  - Favorites Page (manage favorite songs)
- 

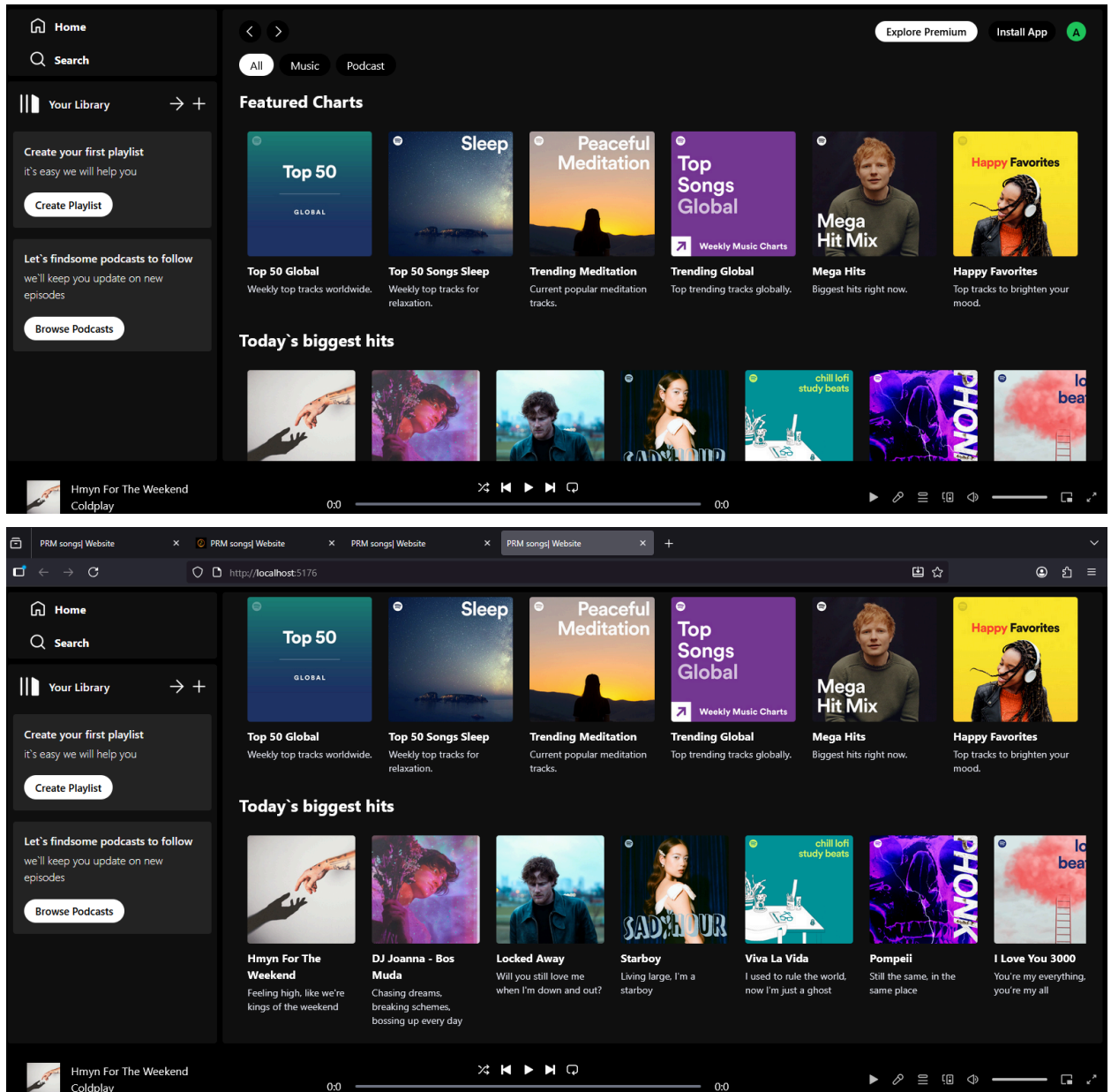
## 10. Testing

- Manual testing using Chrome Dev Tools
  - API testing using JSON Server logs and browser console
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## 11. Screenshots or Demo

- **Demo Video:** [RhythmicTunes Demo](#)
- **Project Reference:** [Code Repo](#)

- screenshot:



## 12. Known Issues

- JSON Server is limited to local testing only (no cloud database).

## 13. Future Enhancements

- Integration with real music APIs (e.g., Spotify API)
- User authentication and profile management
- Social features (playlist sharing, likes)
- Offline music support