

Rhythmic Tunes: Your Melodic Companion

Introduction

Project Title: Rhythmic Tunes

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Project Overview

Purpose: Rhythmic Tunes is a music streaming application built with React.js, providing users an immersive music experience.

Features:

- Display a list of songs with metadata (title, artist, genre, release date)
- Create and manage custom playlists
- Playback controls (play, pause, skip, volume adjustment)
- Offline listening capability
- Advanced search functionality to find songs, artists, or albums

Architecture

Component Structure: Navbar, Hero Component, Search Bar, Playlist, Favorites

State Management: React's Context API for global state, useState for local state

Routing: Implemented with React Router Dom for seamless navigation

Setup Instructions

Prerequisites: Node.js, npm, Git, React.js

Installation:

1. Clone the repository
2. Navigate to the project folder
3. Install dependencies with `npm install`
4. Start the development server with `npm run dev`
5. Run the JSON server with `json-server-watch./db/db.json`
6. Open `http://localhost:5173` in a browser

Folder Structure

/rhythmic-tunes

/src

/components

/pages

/styles

/db

package.json

README.md

Running the Application

Commands:

- `npm run dev` (for frontend)
- `json-server --watch./db/db.json` (for backend)

Component Documentation

Key Components: Navbar, Hero Section, Search Bar, Playlist, Favorites

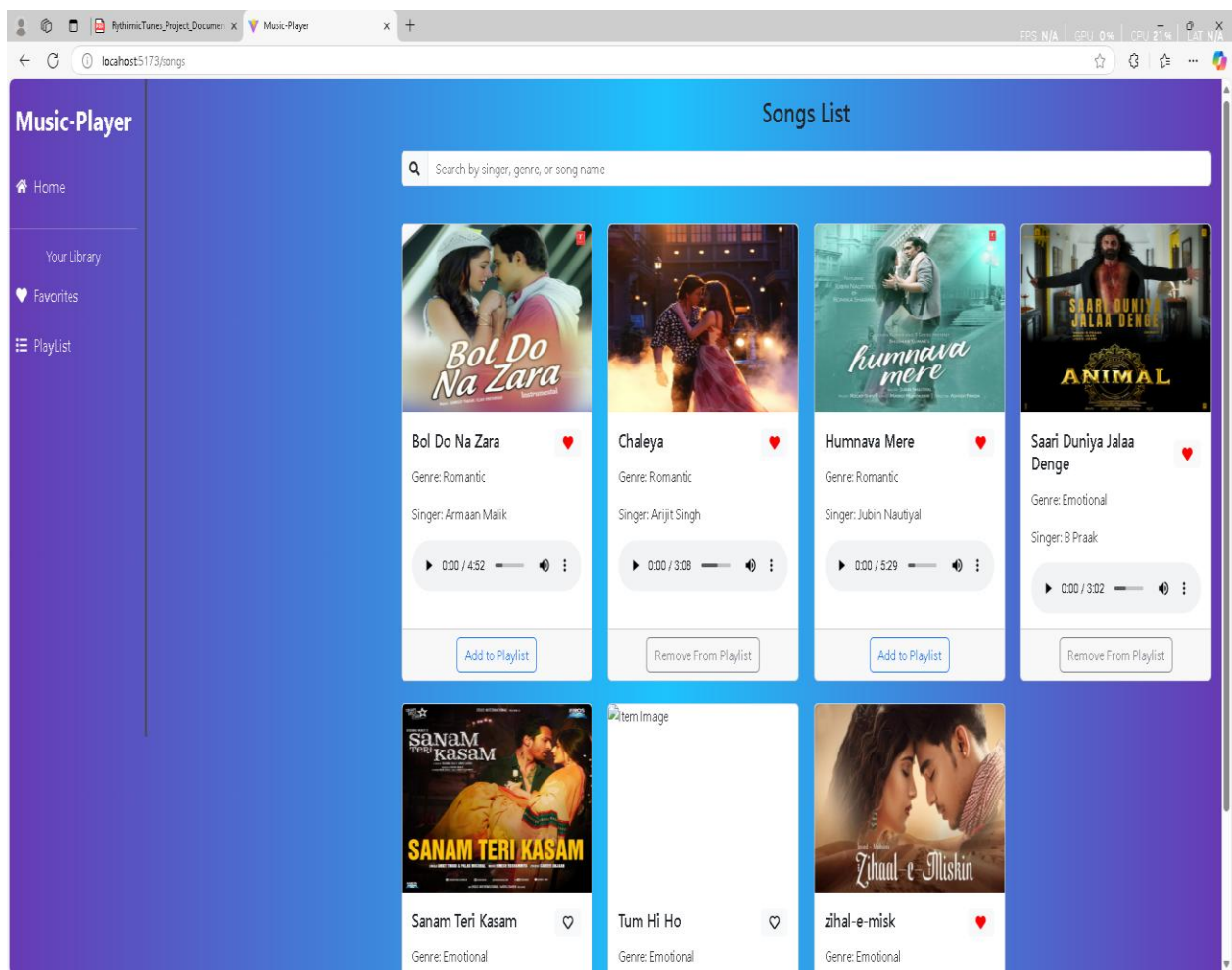
Reusable Components: Buttons, Cards

State Management

Global State: Managed using React Context API

Local State: Managed using useState hooks

User Interface



Styling

CSS Frameworks: Tailwind CSS, React Icons

Theming: Light/Dark mode toggle, Custom color schemes

Testing

Testing Strategy: Unit Testing with Jest, Integration Testing with Cypress

Code Coverage: Ensured with Jest coverage reports

Screenshots or Demo

Demo Link:

https://drive.google.com/file/d/1zZuq62lyYNV_k5uu0SFjoWa35UgQ4LA9/view?usp=drive_link

Known Issues

- API rate limits may affect some features
- Styling inconsistencies across different screen sizes

Future Enhancements

- Add a lyrics feature
- Implement user authentication and profiles
- Integrate social sharing options