

Rhythmic Tunes

1. Introduction

This project represents the frontend of a music player web application developed using React.js. It is designed to provide a simple, elegant, and responsive interface for playing songs, managing playlists, and enjoying an interactive music experience.

Project Title: Rhythmic Tunes |

Team Members:

1. Monika M
2. Abinaya E
3. Keerthika T
4. Dhatchayini S

2. Project Overview

Purpose: This project is a music player web application built using React.js. It allows users to play, pause, and navigate through a collection of songs with a clean and responsive UI.

Features:

- 1 Upload and manage songs 2 Play/Pause functionality 3 Playlist support 4 Responsive design with images and audio integration

3. Architecture

Component Structure: The project includes App.jsx as the main entry point. Components handle player controls, song list display, and navigation.

State Management: React useState is used for handling component-level state. **Routing:** Vite-based project with React Router support for future enhancements.

4. Setup Instructions

Prerequisites: Node.js and npm must be installed. Installation Steps:

1 Clone the repository

2 Navigate to project directory 3 Run npm install to install dependencies 4 Run npm start to start the development server

5. Folder Structure

Client: React app organized with src (components, assets), public (songs, images). Utilities: Includes helper functions and hooks for handling songs and player controls.

6. Running the Application

To run the application locally: npm start

7. Component Documentation

App.jsx: Root component handling layout and routing.

SongList: Renders available songs with props for audio files.

Player: Controls playback (play, pause, next).

8. State Management

Global State: Not implemented yet, potential use of Context API or Redux.

Local State: Player and UI handled with React useState.

9. User Interface

<https://drive.google.com/file/d/1FZXFji8YTfFgkhrVg-4rnOTraM8cLMjC/view?usp=drivesdk>

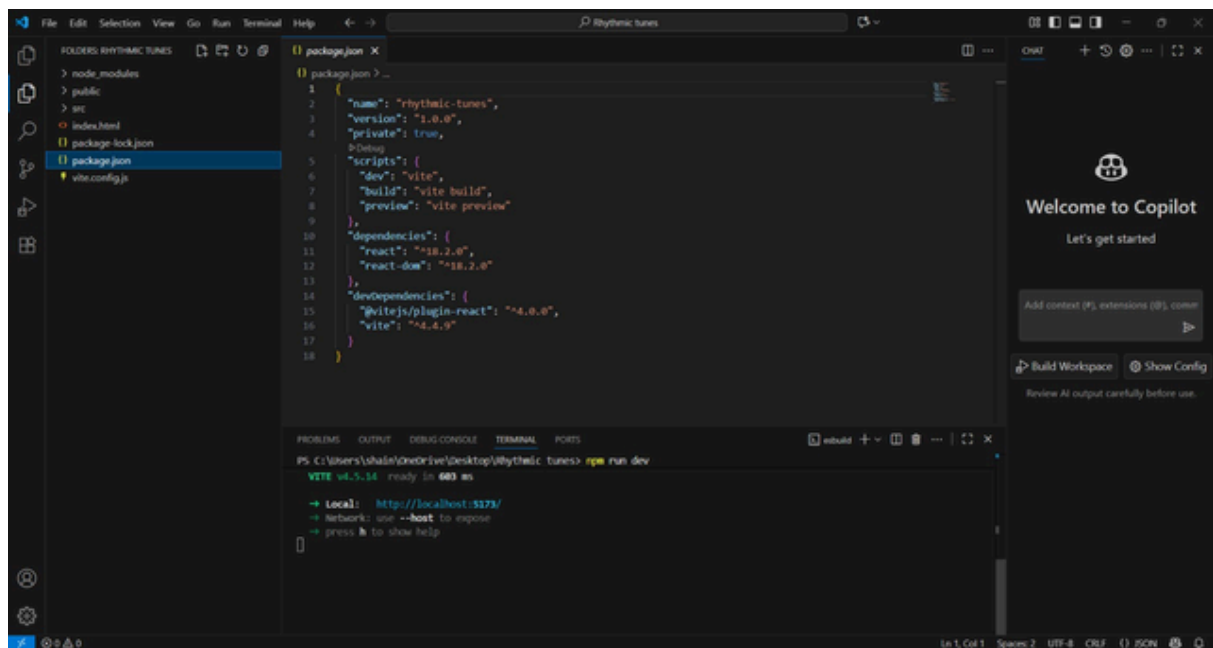
10. Styling

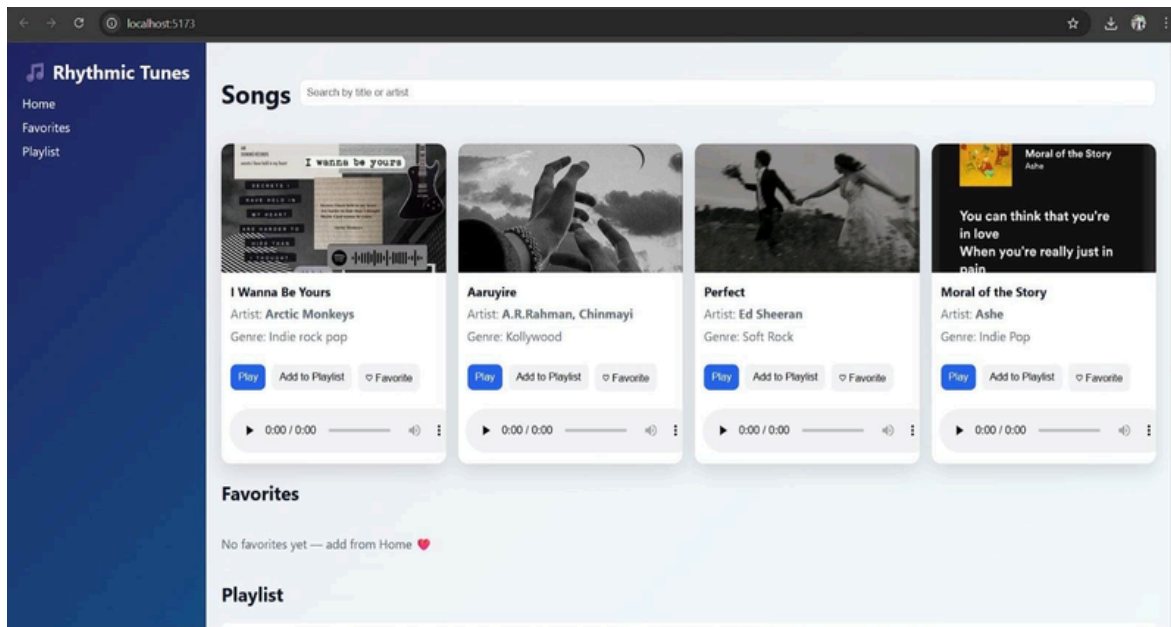
CSS Framework: Tailwind CSS is used for responsive styling.

11. Testing

Testing Strategy: Unit testing planned with Jest and React Testing Library.

12. Screenshots or Demo





13. Known Issues

Some audio formats may not be supported across all browsers.

14. Future Enhancements

- 1 Implement Redux for state management
- 2 Add user authentication
- 3 Enhance UI with animations
- 4 Persist playlists with backend integration