Project Documentation
Rythemic Tunes Your Melodic Companion

1.   Introduction

- **Project Title :** Rythemic Tunes Your Melodic Companion
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2.   Project Overview

Purpose: Rythemic Tunes is a music app that lets users stream songs, create playlists, and discover new music, making it their everyday melodic companion.

Features:

– Music streaming with play, pause, next, and previous control

  – Favourite songs feature

– Search functionality for songs, artists, and albums

3. Architecture

- **Frontend:** React.js with Bootstrap and Material UI

- **Backend:** Node.js and Express.js managing server logic and API endpoints

- **Database:** MongoDB for storing user details, playlists, and music metadata

4. Setup Instructions

- **Prerequisites:**

    - Node.js
    - MongoDB

    - Git
    - React.js (vite)
    - Express.js – Mongoose

    - Visual Studio Code

- **Installation Steps:**

    # Clone the repository git clone

    # Install client dependencies cd client
    npm install

    # Install server dependencies cd
    ../server npm install

5. Folder Structure

| | -- client/   # React frontend

| |__ components/

| |__ pages/

|-- server/   # Node.js backend

| |__ routes/

| |__ models/

| |__ controllers/

6. Running the Application

Frontend:

cd client

npm start

Backend:

cd server

npm start

Access: Visit http://localhost:5173

7. API Documentation

User:

- /api/user/register
- /api/user/login

Songs APIs:

- /api/songs/upload
- /api/songs/:id

Playlist APIs:

- /api/playlist/create
- /api/playlist/:id

Favourites APIs:

- /api/favourite/add
- /api/favourite/remove/:id

8. Authentication

- JWT-based authentication for secure login

- Middleware protects private routes

9.   User Interface

• Landing Page with trending songs & recommendations

• User Dashboard with playlists and favorites

• Song Details Page

10.   Testing

o Manual testing during milestones

o Tools: Postman, Chrome Dev Tools

11.   Demo Video Link

https://drive.google.com/file/d/1QhRX3pHrAKHFEyWlaftbXJT2FRN2lEGz/view?usp=sharing

12.   Known Issues

o Limited music storage

13. Future Enhancements

o AI-based personalized music recommendations
o Offline music playback
o Social features (share playlists, follow friends)