# *PROJECT DOCUMENTATION FORMAT*

## 1. Introduction

**Project Title:**

Rythamic Tunes: Your Melodic Companion

**Team Leader:**

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**Team Members:**

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3.loganathan.S

## 2. Project Overview

**Purpose:**

Rythamic Tunes is a web and mobile-based platform that allows users to discover, stream, and share music seamlessly. It provides personalized playlists, mood-based recommendations, and real-time collaborative listening sessions.

**Features:**

Music streaming and playlist creation

Mood-based & AI-driven song recommendations

Real-time group listening and chat system

User feedback and rating system

Admin dashboard for content & user management

# 3. Architecture

**Frontend:**

React.js with Tailwind CSS / Material UI

**Backend:**

 Node.js and Express.js for server-side logic and REST API management

**Database:**

MongoDB for storing user profiles, playlists, songs, and chat data

# 4. Setup Instructions

**Prerequisites:**

Node.js

MongoDB

Git

React.js

Express.js – Mongoose –
Visual Studio Code

**Installation Steps:**

# Clone the repository

git clone <repository_url>

# Install client
dependencies

cd client

npm install

# Install server
dependencies

cd ../server

npm install

# 5. Folder Structure

```
Rythamic-Tunes/
|-- 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

# 7. API Documentation

## User:

/api/user/register

/api/user/login

## Music:

/api/music/upload

/api/music/:id

/api/music/recommend

## Playlists:

/api/playlist/create

/api/playlist/:id

/api/playlist/add-song

## Chat (Group Listening):

/api/chat/send

/api/chat/:roomId

# 8. Authentication

JWT-based authentication for secure login

Middleware for protecting private routes

# 9. User Interface

Landing Page

Music Player Dashboard
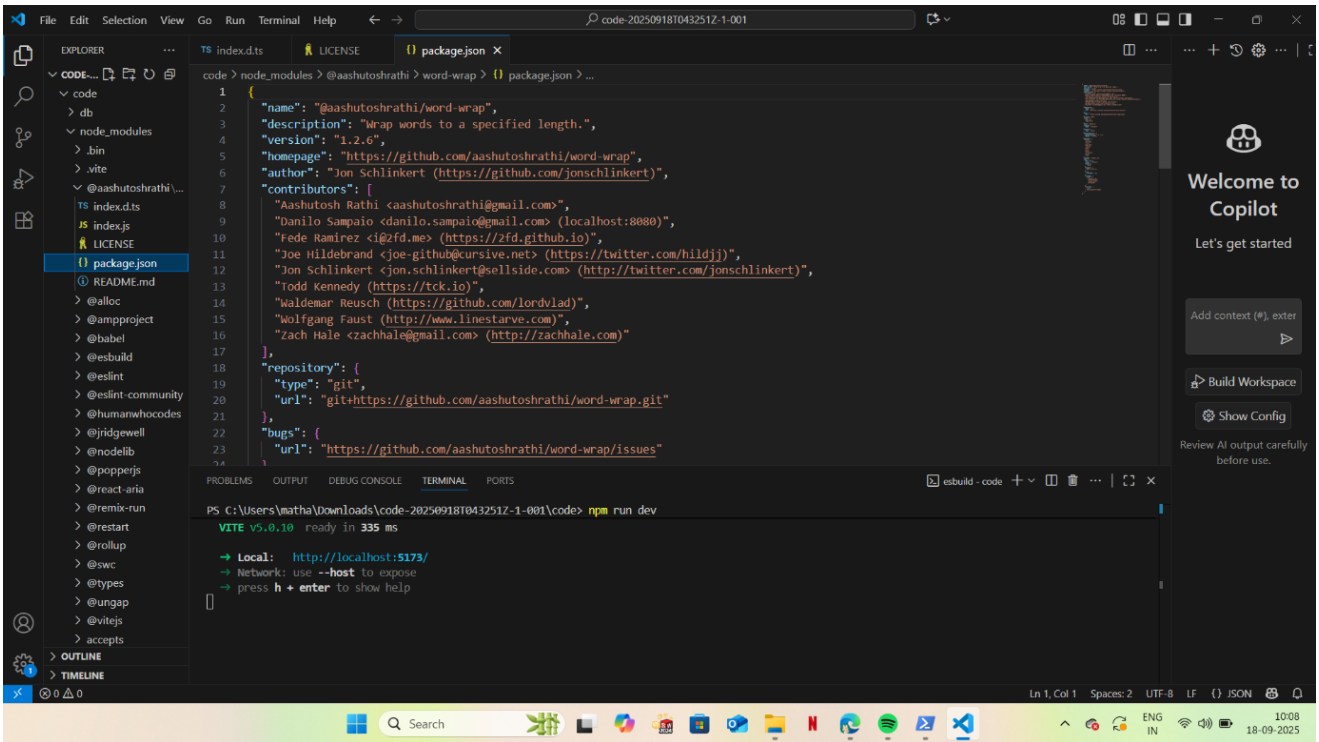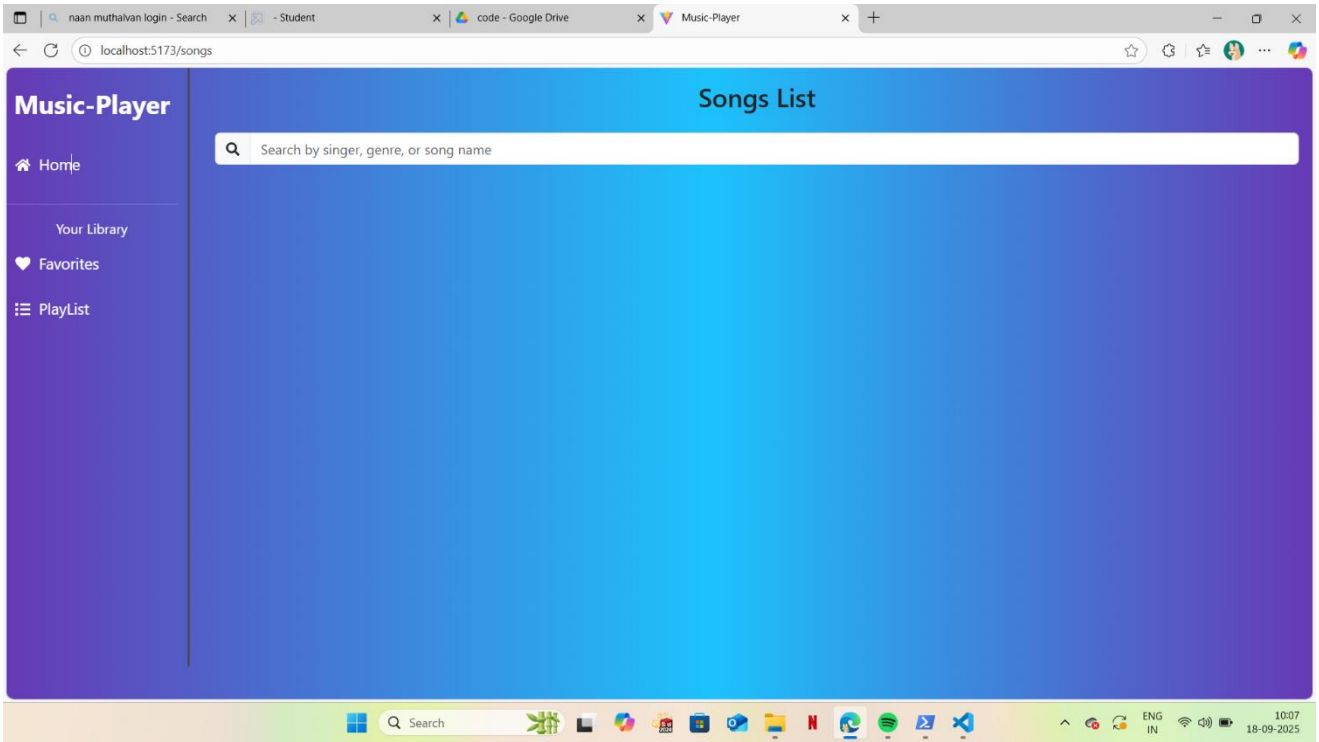
Playlist Management Page

Admin Panel
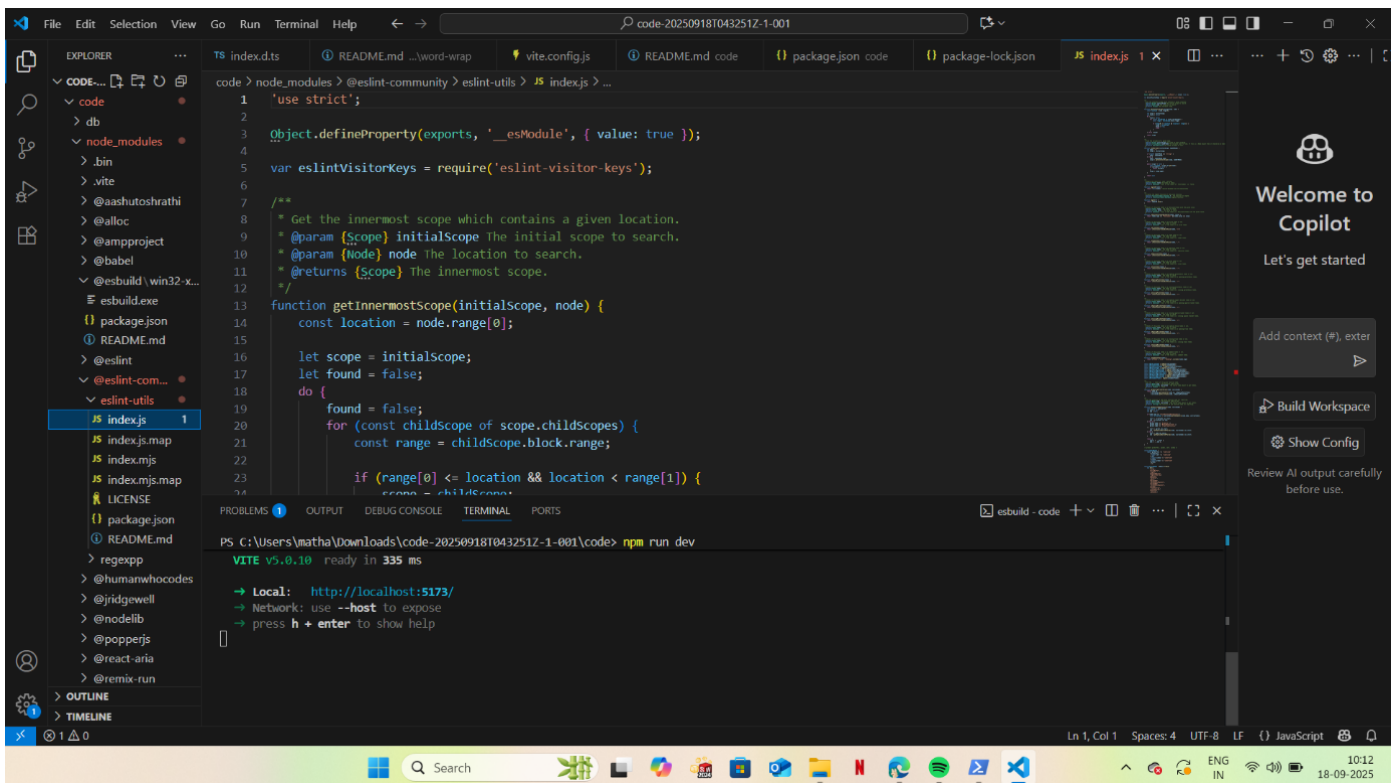
Real-Time Group Listening Room

# 10. Testing

Manual testing during development milestones

Tools: Postman, Chrome Dev Tools

# 11. Screenshots or Demo

## 12. Known Issues

Occasional lag during real-time group listening on low networks

Limited file format support during upload

## 13. Future Enhancements

AI-powered voice search for songs

Offline listening support

Premium subscription with exclusive content

# 14. Demo Link

https://drive.google.com/drive/folders/1kQKD6OMvbj5vz7UF3jPzyLSjl-jyuP4_?usp=sharing