**A PROJECT Title**

**ON**

**" A Multi-Dimensional Music Discovery Platform Incorporating Personality, Location, Temporal Context, and Immersive Visualization"**

***Insem-End project submitted in partial fulfilment of the requirements for the Course***

**Front End Development Frameworks *for the degree of***

**BACHELOR OF TECHNOLOGY**

**IN**

**Computer Science and Engineering**

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Name of Title: " A Multi-Dimensional Music Discovery Platform Incorporating Personality, Location, Temporal Context, and Immersive Visualization”.**

1. **Abstract:**

This project presents the design and development of a Reflective Gradient Music Player Web Application that integrates aesthetic design with smart recommendation features. The system is built using HTML, CSS, and JavaScript, providing users with a visually immersive experience enhanced by reflective animated gradients. Along with basic functionalities like song playback, playlists, and favourites, the application introduces a “Vibe Mixer” recommendation engine that generates personalized playlists based on user mood, energy, tempo, and contextual preferences such as time of day and location. By combining UI innovation and context-aware recommendations, this project demonstrates how modern web technologies can deliver a rich and engaging music streaming experience.

1. **INTRODUCTION:**

Music streaming has become an integral part of digital entertainment. While existing platforms focus heavily on song libraries, they often lack customizable mood-based recommendation features and immersive user interfaces. This project addresses both aspects by developing a web-based music player that combines. Aesthetic design with reflective, gradient-based backgrounds. Interactive features like dynamic playlists, favorites, and artist-specific views. Smart recommendation logic that adapts to user context. The system demonstrates how front-end technologies can be used to create a personalized experience for music enthusiasts.

1. **SOFTWARE REQUIREMENTS:**
2. **Languages & Frameworks**

**HTML5 →** Structure of the web application.

**CSS3 (with animations & gradients) →** Styling, responsive design, reflective gradient effects.

**JavaScript (ES6) →** Core logic, recommendation engine, DOM manipulation, user interactivity.

1. **Libraries & Assets**

**Font Awesome →** Icons for player controls & navigation**.**

**Google Fonts (Poppins) →** Clean typography.

**Unsplash API/Images →** Album art & backgrounds.

1. **Environment & Tools**

**VS Code →** Development environment.

**Browser (Chrome/Edge) →** Testing and debugging.

**Git (optional) →** Version control.

1. **Requirement Analysis**

Identify need for a music player with immersive UI and smart recommendations.

1. **UI/UX Design**

Wireframed layout with sidebar, carousels, and player controls.

Designed reflective gradient backgrounds for aesthetics.

1. **Frontend Development**

HTML structure for pages (Home, Playlists, Artists, Vibe Mixer).

CSS for animations, responsiveness, and blur effects.

1. **JavaScript**

Player functionality (play, pause, shuffle, repeat).

Playlist management & favorites.

Vibe Mixer recommendation algorithm.

1. **Testing & Debugging**

` Tested UI responsiveness on multiple screen sizes.

Debugged recommendation accuracy and navigation history.

Deployment (Local)

Runs as a standalone web app in the browser.

**Course Coordinator Course Instructor CSE , Coordinator**