**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 7 APRIL 2025 |
| Team ID | SWTID1743254297 |
| Project Name | TUNETRAIL- YOUR PATHWAY TO PERFECT PLAYLIST |
| Maximum Marks | 4 Marks |

**Solution Requirements**

This section defines both **functional** and **non-functional** requirements for the music streaming platform.

**Functional Requirements**

* **User Registration/Login**: Secure account creation and login functionality.
* **Music Streaming**: Real-time streaming of music files with play/pause, skip, and shuffle features.
* **Search & Filter**: Keyword-based search for artists, albums, and songs.
* **Playlist Management**: Users can create, edit, delete, and share playlists.
* **User Profiles**: View listening history, liked songs, and personal preferences.
* **Artist Upload Portal**: Allow verified artists to upload songs, manage content, and view analytics.
* **Admin Panel**: For managing users, handling reported content, and moderating uploads.
* **Subscription Model**: Users can subscribe to a premium plan for extra features like ad-free and offline access.

**Non-Functional Requirements**

* **Scalability**: Should handle an increasing number of users and songs.
* **Security**: Authentication (JWT), password hashing, secure file access.
* **Availability**: High uptime using cloud services and CDNs.
* **Performance**: Fast load times and minimal buffering.

**Cross-Platform**: Fully responsive design for desktop and mobile