

# **Project Title: Music Streaming Service Database**

## **Problem Statement**

With the growing demand for online music streaming, platforms require efficient database management to handle large-scale data, user subscriptions, and real-time access to media content. This project aims to design a structured relational database model for a music streaming service that efficiently manages users, artists, albums, songs, playlists, and subscriptions. The system will support both free and premium users and incorporate specialization and generalization concepts in database design.

The project will focus on designing an ER Model for storing user and music-related data, extending it into an Enhanced ER Model (EER) with advanced database concepts, and developing UML Class and Use Case Diagrams to illustrate system functionality. It will also demonstrate how different entities interact within a music streaming platform.

To address the challenges of inefficient storage, slow music retrieval, and complex subscription handling, the proposed solution will develop a structured relational database model that ensures efficient music storage and retrieval, user account management (free/premium), playlist creation and song categorization, and subscription and payment tracking. By implementing this model, the system will enhance data organization, optimize performance, and improve user experience in a music streaming environment.