# ITEC 4200 Advanced Database Semester Project

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**EXECUTIVE SUMMARY**

# Objective

This database is designed to assist **Music Streaming Platform** to track information about the artists, the songs, and albums that are provided through their streaming platform.

# Goals

The goal of this database is to provide an organized means for storing and retrieving information related to tracks and songs that are streamed using the platform. Specifically, the goal is to organize musical metadata so that it can be retrieved and displayed in an accurate manner.

# Solution

The solution is the creation of a relational database that includes tables for organization of musical entities. Specifically, the database contains a Song, Album, and Artist tables to organize the various songs, albums, and artists on the platform. In addition, the database makes use of three many-to-many relationships using three associative entities: Artist-Album, Artist-Song, and Album-Song. These entities define the relationships between our musical entities and help to link our platform’s tracks and songs to the relevant albums and artists. Using these tables, we can create queries and reports that will provide the relevant metadata for any selected song, album, or artist. It will be implemented using Oracle 18c Express.

# Benefits to Users

The database will serve as a valuable tool for organizing the music that’s provided through our streaming platform. We will be able to ensure that users can identify the tracks they want to listen to and be able to know the artists involved and the associated albums.

# Project Outline

The project will contain the following major components:

* Schema Design
* Entity-Relationship Diagram
* Table Implementation
* Queries
* Reports

# Part II. Schema Design

**ARTIST** (ArtistID, ArtistName, ArtistDescription, ArtistPicture)

**ALBUM**(AlbumID, AlbumName, AlbumArt, AlbumLength, AlbumGenre, AlbumReleaseYear, isCompilation)

**SONG** (SongID, SongName, SongArt, SongLength, SongGenre, SongLyrics)

**ARTIST-ALBUM** (ArtistID, AlbumID)

FK ArtistID 🡪 ARTIST

FK AlbumID 🡪 ALBUM

**ARTIST-SONG** (ArtistID, SongID, ArtistIsPrimary)

FK ArtistID 🡪 ARTIST

FK SongID 🡪 SONG

**SONG-ALBUM** (SongID, AlbumID, TrackNumber)

FK SongID 🡪 SONG

FK AlbumID 🡪 ALBUM

ERD Diagram



