

BLG317E Database Systems

Project Proposal

Group Information

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| 1. Full Name: Berke KURT | Student ID: 150210329 |
| 2. Full Name: Efe Can KIRBIYIK | Student ID: 150220768 |

Project Idea

Our project aims to develop a database system for music streaming platforms to manage and organize large amounts of data including music content, artist & group information, personal playlists, and user interactions. The system will handle artist profiles, music tracks, albums, playlists, and user engagement metrics. The database will have several interconnected tables (Artist Info, Group Info, Music, Genre Info, etc.) that establish proper relationships to ensure data integrity and efficient query capabilities. The structure will support essential CRUD operations such as adding new artists and songs, tracking user engagement metrics, and updating play counts.

A database system is essential for our project idea because our music streaming platform needs to store and manage large amounts of interconnected data. Below are diagram and table names describing our database idea.

- **User Info:** Stores real-world information such as name, birth date, etc. for each user.
- **User:** Stores application information such as followers, liked songs, etc for each user.
- **Playlist:** User-created list. Stores song names and song IDs.
- **Streaming History:** Tracks user listening history. It holds the user ID, end time of listening, song ID and listening time information.
- **Genre Info:** Holds details about music genres.
- **Music:** Holds the information and audio file about a song.
- **Album:** Includes album-specific information like its name and release date.
- **Group Info:** Stores information on music groups, including their band name, vocal ID, followers, and the members within each group.
- **Artist Info:** Stores information about artists. Each artist is also a user but each user is not an artist. It holds instrument and salary information.

