YEAR-END CHARTS
Billboard Top 100 Songs

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Purpose

Provides insight into the billboard top 100 from 2006-2022

- Collect data of billboard top 100 from 2006 - 2022, artists associated, albums associated, year they were created, and genres associated with them
- Use the collected data to edit, sort, and find specific songs, artist, albums, etc by accessing the billboard top 100 songs from 2006 - 2022
- The database takes in charts from the Billboard Hot 100 from year 2006 to 2022 and finds important information such as popular genres and other trends

System Description

Integrated Development Environment (IDE):

- Visual Studio Code (VS Code)

Database:

- SQLite3

Language:

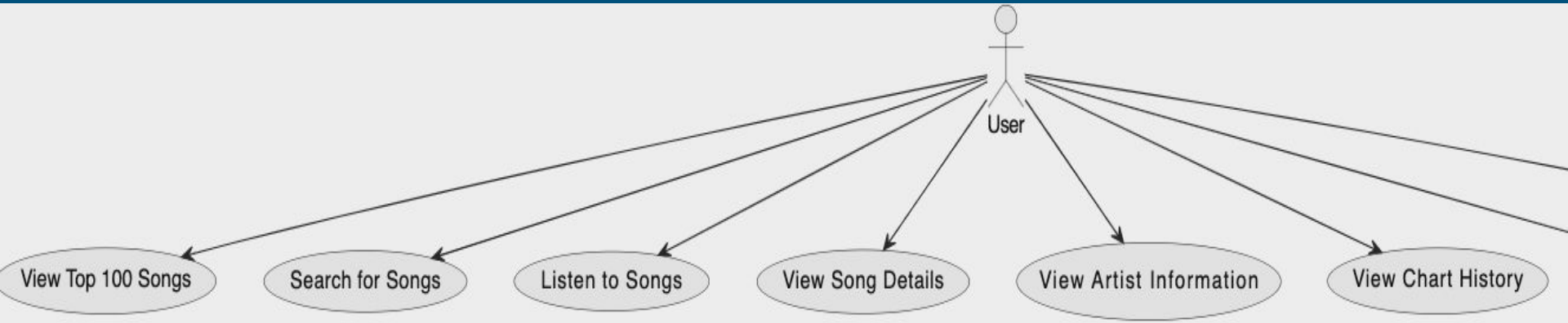
- Python

Use-Cases

- **User Use cases**
  - View Top 100 Songs
  - Search for Songs
  - Listen to Songs
  - View Song Details
  - View Artist Information
  - View Chart History
- **Relationships**
  - Songs to Artists
  - Songs to Albums
  - Songs to Genre
  - Artists to Albums
  - Genre to Albums
- **Common Use Cases**
  - User, Billboard Database

UML Use Case Diagram

Users have the option to "Explore Top 100 Songs," staying up to date with the latest and old hits, and can effortlessly "Search for Songs" to find specific tracks along with their respective creation years. They can delve into comprehensive insights about songs and their creators through "View Song Details" and "View Artist Information" as they immerse themselves into the songs while they to "Listen to Songs."

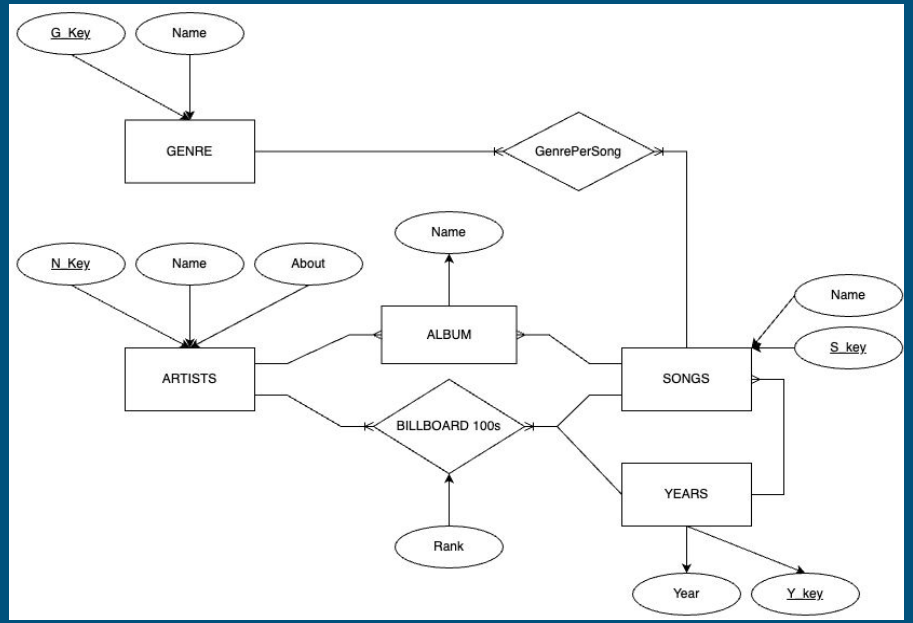


E/R diagrams

We have 6 entities in total

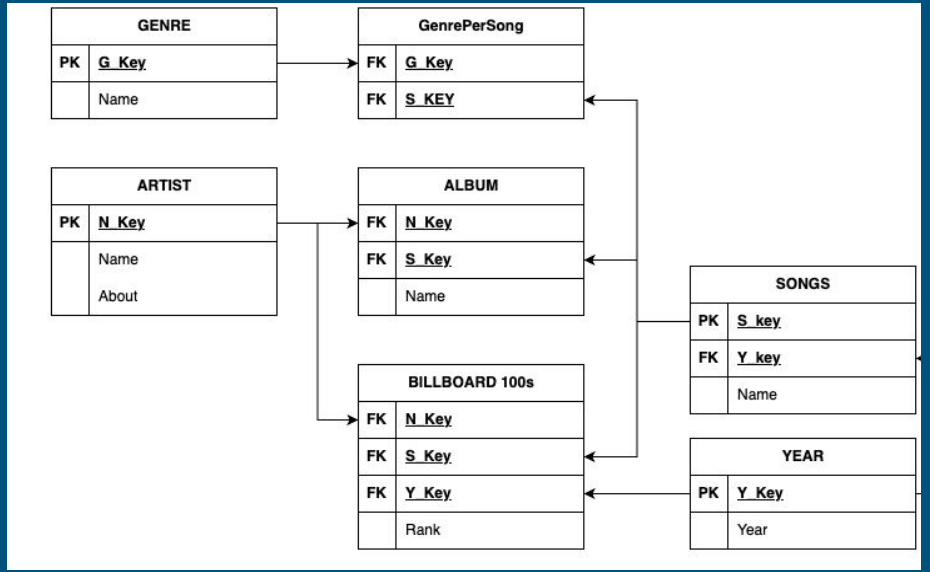
We have 2 different ways of joining artists and songs

Billboard Entity consists of 3 foreign keys



Relation Schema

The GenrePerSong table is meant to help combine the Genre and Song table as these tables have a many to many relationship



Implementation details

- Two files
  - Main.py is the main file which creates the Database file
  - Queries.py is the fully integrated python functions which allow the user to run the application in the terminal
- Queries.py allows for tables to be edited (deleted and inserted)
- Users can run main.py if they want to reset the database after using Queries.py

Github

https://github.com/PranavC287/Billboard-Top-100