🎵 Music Store Database Overview

The Music Store database is a **relational schema** designed to manage data for a digital music store. It follows a **normalized star schema** format that enables efficient storage and advanced data analysis through SQL queries.

🗂️ Database Schema Description

The schema is composed of **fact and dimension tables**:

✅ Fact Table

- **Invoice Line**
    - Stores individual line items from purchases.
    - Contains transactional data: Unit Price, Quantity.
    - Connected to Invoice (purchase), and Track (product).

🧱 Dimension Tables

- **Customer** – Details about buyers, such as names, location, and support rep.
- **Invoice** – Captures purchases: billing address, date, customer, and total.
- **Employee** – Staff who support customers; linked via SupportRepId.
- **Track** – The product catalog, including track names, duration, pricing.
- **Album** – Album metadata, linked to the artist.
- **Artist** – Creators of the albums/tracks.
- **Genre** – Classification of music styles (e.g., Rock, Jazz).
- **MediaType** – Type of file (e.g., MPEG, AAC).
- **Playlist & PlaylistTrack** – Organizes tracks into playlists (not directly involved in transactions but helpful for user behavior analysis).

☑️ Use Case: SQL-Based Analysis

The database supports a variety of business and analytical questions, as outlined in your PDF:

🟢 Easy Analysis

- Identify top employees or high-performing countries (Employee, Invoice).
- Understand customer purchasing behavior (Invoice, Customer).

🟡 Moderate Analysis

- Target marketing by analyzing genres (Genre, Track, InvoiceLine).

- Invite top rock artists using track and artist linkages.

⚫ **Advanced Analysis**

- Determine spending patterns by customer per artist.
- Find the most popular genre per country.
- Identify top customers by country based on purchase data.

These queries require combining multiple tables via **joins** using primary-foreign key relationships and aggregating data for insights.

💡 **Example Insight Queries**

- **Top City by Revenue**:
    - Use Invoice grouped by BillingCity and summed Total.
- **Top Customer**:
    - Use Customer joined to Invoice, then sum Total per customer.
- **Top Genre by Country**:
    - Join Customer → Invoice → Invoice Line → Track → Genre, group by Country and Genre.

🛠️ **Tools & Usage**

This schema is perfect for:

- Practicing SQL joins, aggregations, and filtering.
- Building dashboards (e.g., in Power BI, Tableau).
- Simulating business intelligence workflows.