



This project features a collection of SQL queries crafted to extract distinct insights from a simulated Buzztone Musics database.

❖ Purpose

The Buzztone Musics SQL Project uses SQL queries to explore and understand a typical music store's data. The queries aim to answer important questions about Buzztone Musics' operations, customer habits, and sales, offering useful insights that can help improve the business and increase profits.

❖ Data

The data is stored in several tables within the database. Based on the queries, some of the tables include employee, invoice, customer, invoice_line, track, genre, artist, and album.

❖ Analysis Approach

The project is segmented into three tiers of complexity: **Easy, Moderate, and Advanced.**

- **Easy Level:** Features basic queries that focus on direct data retrieval, such as pinpointing top customers or employees.
- **Moderate Level:** Encompasses intermediate queries that dig deeper, using complex JOIN operations, GROUP BY clauses, and aggregate functions like SUM and COUNT to derive more nuanced insights.
- **Advanced Level:** Showcases the power of advanced SQL techniques. It prominently uses Common Table Expressions (CTEs) and window functions like ROW_NUMBER to answer complex queries.

❖ SQL Constructs Used

The project showcases a wide range of SQL constructs to address various querying needs:

- **Data Retrieval:** SELECT, DISTINCT, and FROM.
- **Filtering:** WHERE, IN, and LIMIT.
- **Aggregation:** SUM, COUNT, AVG.
- **Sorting:** ORDER BY.
- **Joining Tables:** JOIN.
- **Grouping Data:** GROUP BY.
- **Window Functions:** ROW_NUMBER.
- **Subqueries and Derived Tables:** WITH (for CTEs).