Title: Advanced SQL Analysis

Subtitle: Analyzing the Chinook Database

ISSUE / PROBLEM

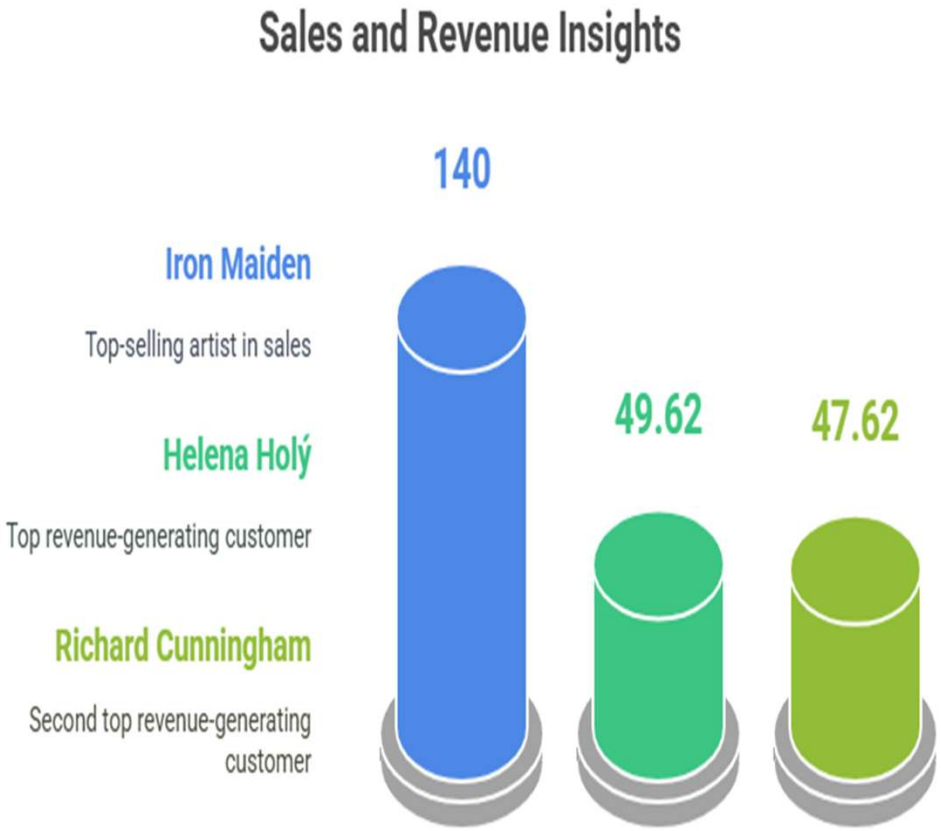
The goal of this project is to **demonstrate expertise in SQL** by analyzing a **real-world music store database** (chinook.db) The project addresses **key business questions** related to **customer spending, top-selling artists, sales trends, and customer segmentation**. It also explores methods to **optimize queries, improve performance, and enhance data structuring**.

RESPONSE

To achieve these goals, this project follows a structured workflow:

1. **Database Setup & Exploration**
2. **Advanced SQL Queries**
3. **Query Optimization & Indexing**
4. **Data Visualizations**
5. **Data Normalization & De-Normalization**
6. **Performance Enhancement**

KEY INSIGHTS



IMPACT

Improved Business Decision-Making

- Insights into **top-selling artists** enable **strategic inventory and marketing planning**.

Enhanced Data Processing Efficiency

- **Indexing reduced query execution time**, improving database performance for large-scale analysis.

Scalability for Future Analysis

- The structured approach can be expanded to **more complex datasets** and **other business applications**.
- **Automation of SQL reporting** enhances decision-making processes with real-time insights.