

# DATA ANALYSIS OF MUSIC RETAIL SALES USING SQL

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# PROBLEM STATEMENT

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In the music retail industry, understanding customer behavior, sales patterns, and the popularity of different music genres across various regions is crucial for strategic planning and decision-making. Our goal is to leverage SQL queries to extract insightful data from a music database, allowing us to identify top-performing employees, understand customer spending habits, determine popular music genres, and more.

# ABOUT THE DATA

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The dataset consists of multiple interconnected tables that store information about employees, customers, invoices, invoice lines, tracks, artists, albums, genres, media types, and playlists. Each table serves a specific purpose:

- Employee: Information about employees, including their hierarchy.
- Customer: Customer details along with their support representative.
- Invoice: Invoice data linked to customers.
- Invoice Line: Detailed line items within invoices.
- Track: Individual music tracks linked to albums, genres, and media types.
- Artist: Artist information.
- Album: Albums created by artists.
- Genre: Various music genres.
- Media Type: Different media formats.
- Playlist: Playlists curated by users.
- Playlist Track: Tracks included in playlists.





# PROPOSED SOLUTION

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To extract valuable insights, we will use SQL queries to answer the following business questions:

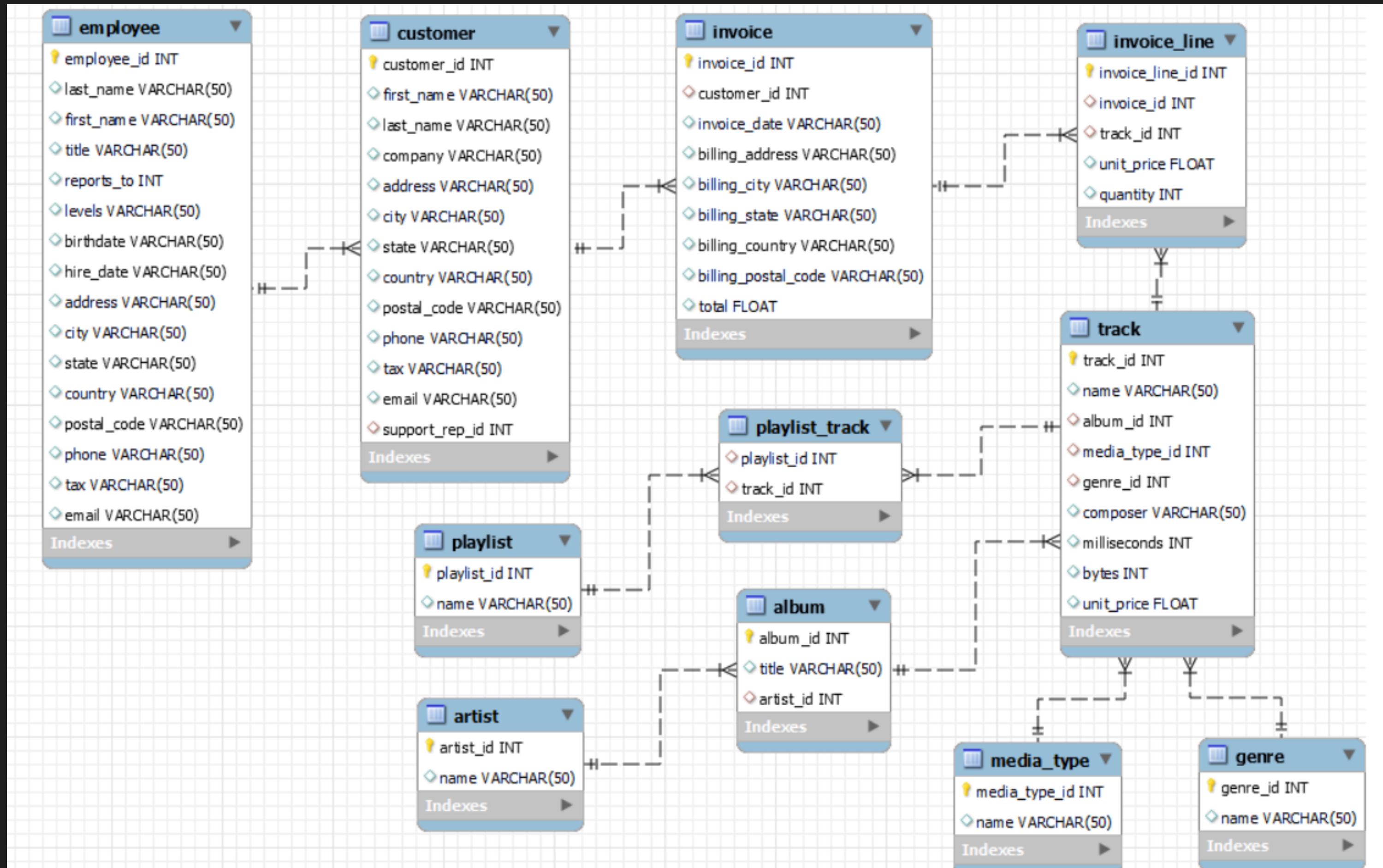
1. Identify the senior most employee based on job title.
2. Determine which countries have the most invoices.
3. Find the top three countries with the highest number of invoices.
4. Identify the city with the highest total invoice value to plan a promotional event.
5. Determine the customer who has spent the most money.
6. List the email, first name, last name, and genre of all rock music listeners.
7. Identify the top 10 artists who have written the most rock music.
8. List tracks that are longer than the average track length.
9. Find the amount spent by each customer on each artist.
10. Identify the most popular music genre in each country.
11. Determine the top-spending customer in each country.

# CONCLUSION

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Through a series of structured SQL queries, we have successfully extracted critical business insights from the music database. These insights include identifying top-performing employees, understanding customer preferences and spending habits, and determining popular music genres across different regions. These findings will help in strategic planning, targeted marketing, and enhancing customer engagement.







# FUTURE SCOPE

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- 1. Advanced Analytics:** Incorporate machine learning models to predict customer behavior and genre popularity trends.
- 2. Real-time Data Processing:** Implement real-time data analytics for up-to-date insights.
- 3. Customer Segmentation:** Use clustering techniques to segment customers based on their purchasing patterns and preferences.
- 4. Enhanced Reporting:** Develop interactive dashboards using tools like Tableau or Power BI for more dynamic data visualization.
- 5. Integration with External Data:** Combine internal sales data with external market trends for more comprehensive analysis.

By continuously refining our data analytics capabilities and integrating advanced technologies, we can further enhance our understanding of the music retail landscape and drive more effective business strategies.