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| MUSIC STORE  ANALYSIS |

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| SQL PROJECT |

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Contents

Objective 2

Queries 3

Dataset 4

Learning Outcomes5

About Me6

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| OBJECTIVE |

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| * **Analyzing the music playlist database using SQL to help the store understand its Bussiness Growth by answering simple queries.** |

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| QUERIES |

## Question set 1

* Who is the senior most employee based on job title?
* Which countries have the most invoices?
* What are top 3 values of total invoice?
* Which city has the best customers? We would like to throw a promotional music festival in the city we made the most money. Write a query that returns one city that has highest sum of invoice totals. Return both the city name and sum of all invoice totals.
* Who is the best customer? The customer who has spent the most money will be declared the best customer. Write a Query that returns the person who has spent the most money.

## Question set 2

* Write a query to return the email, first name, last name & Genre of All Rock Music Listeners. Return your list ordered alphabetically by email starting with A.
* Let’s invite the artists who have written the most rock music in our dataset. Write a query that returns the Artist name and total track count of top 10 rock bands.
* Return all the track names that have a song longer than the average song length. Return the name and Milliseconds for each track. Order by the song length with the longest songs listed first.

## Question set 3

* Find how much money spent by each customer on artists? Write a query to return customer name, Artist name and total spent.
* We want to find out most popular music genre for each country. We determine the most popular genre as the genre with highest number of purchases. Write a query that returns each country along with top Genres. For countries where the maximum number of purchases is shared return all Genres.
* Write a Query that determines the customer that has spent the most on music for each country. Write a query that returns the country along with top customer and how much they spent. For Countries where top amount is shared, provide all customers who spent this amount.

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| A screenshot of a computer  Description automatically generated with medium confidence Music Store Database As shown in the Data schema, the database consists of 11 tables namely:   * Artist * Album * Track * Playlist Track * Playlist * Media Type * Genre * Invoice Line * Invoice * Customer * Employee |  |
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| DATASET |

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| LEARNING OUTCOMES |

The queries demonstrate the use of various SQL syntax, keywords, and functions to retrieve and analyze data. The outcomes derived from the queries provide valuable insights into the dataset. The report highlights eight key learning outcomes from the analysis.

1. Understanding of SQL Syntax: The queries showcase the usage of fundamental SQL keywords such as SELECT, FROM, JOIN, WHERE GROUP BY, ORDER BY, and LIMIT. These keywords form the foundation of constructing effective SQL statements.

2. Aggregate Functions: The analysis demonstrates familiarity with essential aggregate functions like COUNT, SUM, and AVG. These functions enable calculations and summarization of data, providing valuable metrics for analysis.

3. Sorting Results: The ability to sort query results is exemplified using the ORDER BY clause. This feature allows data to be arranged in both ascending and descending order, aiding in result interpretation.

4. Table Joins: The queries illustrate the skill of joining multiple tables using JOIN statements. This capability enables the retrieval of data from related tables, facilitating comprehensive data analysis.

5. Subqueries: The understanding of subqueries is demonstrated, as they are employed within the WHERE clause to filter data based on specific conditions. Subqueries enhance the flexibility and precision of data retrieval.

6. Filtering Data: The analysis showcases the utilization of common SQL operations to filter data, enabling the extraction of specific subsets of information for analysis and reporting purposes.

7. DISTINCT Clause: The familiarity with the DISTINCT clause is exemplified, as it is employed to eliminate duplicate records from query results. This functionality ensures accurate and concise data presentation.

8. Advanced Query Techniques: The utilization of Common Table Expressions (CTEs) and the ROW\_NUMBER function is highlighted. These advanced techniques enable complex queries, including ranking and partitioning of data, enhancing the depth of analysis.

The demonstrated learning outcomes helped me gain a strong foundational understanding of SQL and its practical application for data retrieval and analysis. The ability to construct effective queries and derive meaningful insights from the database is indicative of proficient SQL skills.

*Overall, this analysis helped me gain valuable insights into the dataset and serves as a testament to the SQL expertise employed in querying and analyzing the database.*

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| ABOUT ME |



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