

SQL PROJECT- MUSIC STORE DATA ANALYSIS

This project focuses on analysing a music store dataset using SQL queries, aimed at exploring various aspects of the business, from customer spending behaviour to popular music genres across different countries.

The project is divided into three question sets ranging from easy to advanced difficulty levels. The easy set tackles basic inquiries such as identifying the senior-most employee and determining countries with the highest invoice counts. The moderate set delves into more complex queries, including identifying top rock music listeners and inviting prolific rock bands to events. Finally, the advanced set explores customer spending patterns on artists and determining the most popular music genres by country.

With a comprehensive set of SQL queries, this project provides insights valuable for business decision-making in the music industry.

Project Details:

RDBMS – Microsoft SQL Server

Database Source - <https://bit.ly/3X7wV69>

Concepts Used – Aggregate functions (SUM, COUNT, AVG, etc), JOINS, CTE, Sub queries, etc

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Question Set 1 - Easy

1. Who is the senior most employee based on job title?

	Name	title
1	Mohan Madan	Senior General Manager

Ans -

2. Which countries have the most Invoices?

	billing_country	count_invoices
1	USA	131
2	Canada	76
3	Brazil	61
4	France	50
5	Germany	41

Ans-

3. What are top 3 values of total invoice?

	Top_3_invoices
1	15.8400001525879
2	9.89999961853027
3	1.98000001907349

Ans-

4. 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 the highest sum of invoice totals. Return both the city name & sum of all invoice totals

	billing_city	Sum_total
1	Prague	273.240000247955

Ans-

5. 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

	customer_id	Customer_Name	invoice_total
1	5	František Wichterlová	144.539998054504

Ans-

Question Set 2 – Moderate

1. Write 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

	email	first_name	last_name				
				55	steve.murray@yahoo.uk	Steve	Murray
1	aaronmitchell@yahoo.ca	Aaron	Mitchell	56	terhi.hamalainen@apple.fi	Terhi	Hämäläi...
2	alero@uol.com.br	Alexandre	Rocha	57	tgoyer@apple.com	Tim	Goyer
3	astrid.gruber@apple.at	Astrid	Gruber	58	vstevens@yahoo.com	Victor	Stevens
4	bjorn.hansen@yahoo.no	Bjørn	Hansen	59	wyatt.girard@yahoo.fr	Wyatt	Girard
Ans- 5	camille.bernard@yahoo.fr	Camille	Bernard				

2. 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 the top 10 rock bands

	artist_name	track_count
1	Led Zeppelin	114
2	U2	112
3	Deep Purple	92
4	Iron Maiden	81
5	Pearl Jam	54
6	Van Halen	52
7	Queen	45
8	The Rolling Stones	41
9	Creedence Clearwater Revival	40
Ans- 10	Kiss	35

3. Return all the track names that have a song length 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

	name	milliseconds			
1	Occupation / Precipice	5286953	490	22 Acacia Avenue	395572
2	Through a Looking Glass	5088838	491	The Unforgiven II	395520
3	Greetings from Earth, Pt. 1	2960293	492	The Shortest Straw	395389
4	The Man With Nine Lives	2956998	493	Concerto for Clarinet in A Major,...	394482
Ans- 5	Battlestar Galactica, Pt. 2	2956081	494	Wicked Ways	393691

Question Set 3 – Advance

1. Find how much amount spent by each customer on artists? Write a query to return customer name, artist name and total

	Customer_name	artist_name	amt_spent				
1	Aaron Mitchell	AC/DC	10.8900003433228	2185	Wyatt Girard	The Police	13.8599996566772
2	Aaron Mitchell	Aerosmith	10.8900003433228	2186	Wyatt Girard	The Rolling Stones	8.90999984741211
3	Aaron Mitchell	Alanis Morissette	3.96000003814697	2187	Wyatt Girard	U2	10.8900003433228
4	Aaron Mitchell	Amy Winehouse	6.92999982833862	2188	Wyatt Girard	UB40	9.89999961853027
5	Aaron Mitchell	Audioslave	1.98000001907349	2189	Wyatt Girard	Van Halen	10.8900003433228

2. We want to find out the most popular music Genre for each country. We determine the most popular genre as the genre with the highest amount of purchases. Write a query that returns each country along with the top Genre. For countries where the maximum number of purchases is shared return all Genres

	genre_name	country	amt_purchase				
1	Alternative & Punk	Argentina	203.94	19	Rock	Poland	356.4
2	Alternative & Punk	Australia	360.36	20	Rock	Portugal	1147.41
3	Rock	Austria	341.55	21	Rock	Spain	525.69
4	Rock	Belgium	229.68	22	Rock	Sweden	646.47
5	Rock	Brazil	1993.86	23	Rock	United Kingdo...	1682.01
				24	Rock	USA	5568.75

3. 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 the top customer and how much they spent. For countries where the top amount spent is shared, provide all customers who spent this amount

	customer_name	country	total_amount				
1	Diego Gutiérrez	Argentina	39.5999991893768	19	Stanisław Wójcik	Poland	76.2300002574921
2	Mark Taylor	Australia	81.1800003051758	20	Madalena Sampaio	Portugal	82.1699998378754
3	Astrid Gruber	Austria	69.299998998642	21	Enrique Muñoz	Spain	98.0099990367889
4	Daan Peeters	Belgium	60.3899998664856	22	Joakim Johansson	Sweden	75.2399995326996
5	Eduardo Martins	Brazil	60.3900001049042	23	Emma Jones	United Kingdo...	68.3099992275238
				24	Tim Goyer	USA	54.4499995708466