SQL Music Store Database Analysis Report

Project Overview

This report provides an analysis of a music store database using SQL queries. The objective is to extract meaningful insights regarding employee hierarchy, customer spending, sales trends, and music preferences. The findings are categorized into three levels of query complexity: easy, moderate, and advanced.
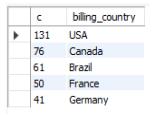
1. Basic Insights

1.1 Senior Most Employee

The senior-most employee based on job title was identified using a query that orders employees by their level.

title	first_name	last_name	levels
Senior General Manager	Mohan	Madan	L7

1.2 Countries with Most Invoices

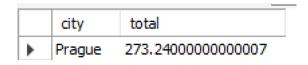The top five countries generating the most invoices were determined using an aggregation query.

c	billing_country
131	USA
76	Canada
61	Brazil
50	France
41	Germany

1.3 Top Invoice Values

The three highest invoice totals were extracted to understand the maximum transaction values.

Total_Invoice
23.759999999999998
19.8
19.8

1.4 Best Customer City

The city with the highest total invoice amount was identified as the best location for customer engagement.

	city	total
▶	Prague	273.24000000000007

1.5 Highest-Spending Customer

The customer with the highest total spending was identified using a JOIN operation between customers and invoices

	ID	first_name	last_name	Total_Spent
▶	5	František	Wichterlová	144.54

2. Moderate-Level Insights

2.1 Rock Music Listeners

Customers who listen to rock music were identified along with their email addresses.

	Email	First_name	Last_name	name
▶	aaronmitchell@yahoo.ca	Aaron	Mitchell	Rock
	alero@uol.com.br	Alexandre	Rocha	Rock
	astrid.gruber@apple.at	Astrid	Gruber	Rock
	bjorn.hansen@yahoo.no	Bjørn	Hansen	Rock
	camille.bernard@yahoo.fr	Camille	Bernard	Rock
	daan_peeters@apple.be	Daan	Peeters	Rock
	diego.gutierrez@yahoo.ar	Diego	Gutiérrez	Rock
	dmiller@comcast.com	Dan	Miller	Rock
	dominiquelefebvre@gmail.com	Dominique	Lefebvre	Rock
	edfrancis@yachoo.ca	Edward	Francis	Rock
	eduardo@woodstock.com.br	Eduardo	Martins	Rock
	ellie.sullivan@shaw.ca	Ellie	Sullivan	Rock
	emma_jones@hotmail.com	Emma	Jones	Rock

2.2 Top Rock Music Artists

The top 10 artists who have contributed the most rock music tracks were determined.

artist_id	name	number_of_songs
22	Led Zeppelin	105
150	U2	90
58	Deep Purple	74
90	Iron Maiden	61
118	Pearl Jam	54
152	Van Halen	52
51	Queen	45
142	The Rolling Stones	41
76	Creedence Clearwater Revival	40
52	Kiss	35

2.3 Songs Longer Than Average

Tracks longer than the average song length was identified and sorted in descending order.

name	milliseconds
Funky Piano	934791
Going Down / Highway Star	913658
My Funny Valentine (Live)	907520
Santana Jam	882834
The Sun Road	880640
Whole Lotta Love	863895
Mistreated (Alternate Version)	854700
Just Ain't Good Enough	850259
Miles Runs The Voodoo Down	843964
Whole Lotta Love (Medley)	825103
Rime of the Ancient Mariner	816509
Walkin'	807392
You Fool No One	804101

track 16 ✕

3. Advanced Insights

3.1 Customer Spending on Artists

The amount spent by each customer on a specific artist was calculated, helping to determine top revenue-generating artists.

customer_id	first_name	last_name	artist_name	Total_sale
46	Hugh	O'Reilly	Queen	27.719999999999985
38	Niklas	Schröder	Queen	18.81
3	François	Tremblay	Queen	17.82
34	João	Fernandes	Queen	16.830000000000002
53	Phil	Hughes	Queen	11.88
41	Marc	Dubois	Queen	11.88
47	Lucas	Mancini	Queen	10.89
33	Ellie	Sullivan	Queen	10.89
5	František	Wichterlová	Queen	3.96
20	Dan	Miller	Queen	3.96
54	Steve	Murray	Queen	2.9699999999999998
31	Martha	Silk	Queen	2.9699999999999998
23	John	Gordon	Queen	2.9699999999999998

Result 17 ×

3.2 Most Popular Music Genre by Country

The most popular music genre in each country was identified based on purchase volume.

purchases	country	name	genre_id	row_no
17	Argentina	Alternative & Punk	4	1
34	Australia	Rock	1	1
40	Austria	Rock	1	1
26	Belgium	Rock	1	1
205	Brazil	Rock	1	1
333	Canada	Rock	1	1
61	Chile	Rock	1	1
143	Czech Republic	Rock	1	1
24	Denmark	Rock	1	1
46	Finland	Rock	1	1
211	France	Rock	1	1
194	Germany	Rock	1	1
44	Hungary	Rock	1	1

3.3 Top Customer by Country

The highest-spending customer in each country was identified to analyze regional spending patterns.

C_ID	First_name	last_name	country	total_spending	row_no
56	Diego	Gutiérrez	Argentina	39.6	1
55	Mark	Taylor	Australia	81.18	1
7	Astrid	Gruber	Austria	69.3	1
8	Daan	Peeters	Belgium	60.38999999999999	1
1	Luís	Gonçalves	Brazil	108.89999999999998	1
3	François	Tremblay	Canada	99.99	1
57	Luis	Rojas	Chile	97.02000000000001	1
5	František	Wichterlová	Czech Republic	144.54	1
9	Kara	Nielsen	Denmark	37.62	1
44	Terhi	Hämäläinen	Finland	79.2	1
42	Wyatt	Girard	France	99.99	1
37	Fynn	Zimmermann	Germany	94.05000000000001	1
45	Ladislav	Kovács	Hungary	78.21	1

Conclusion

This SQL analysis of the music store database provides insights into customer behavior, sales trends, and artist popularity. These insights can guide marketing strategies, promotions, and business decisions for optimizing sales performance.

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