



Music Store Analysis By SQL

By Yogesh Gaonkar

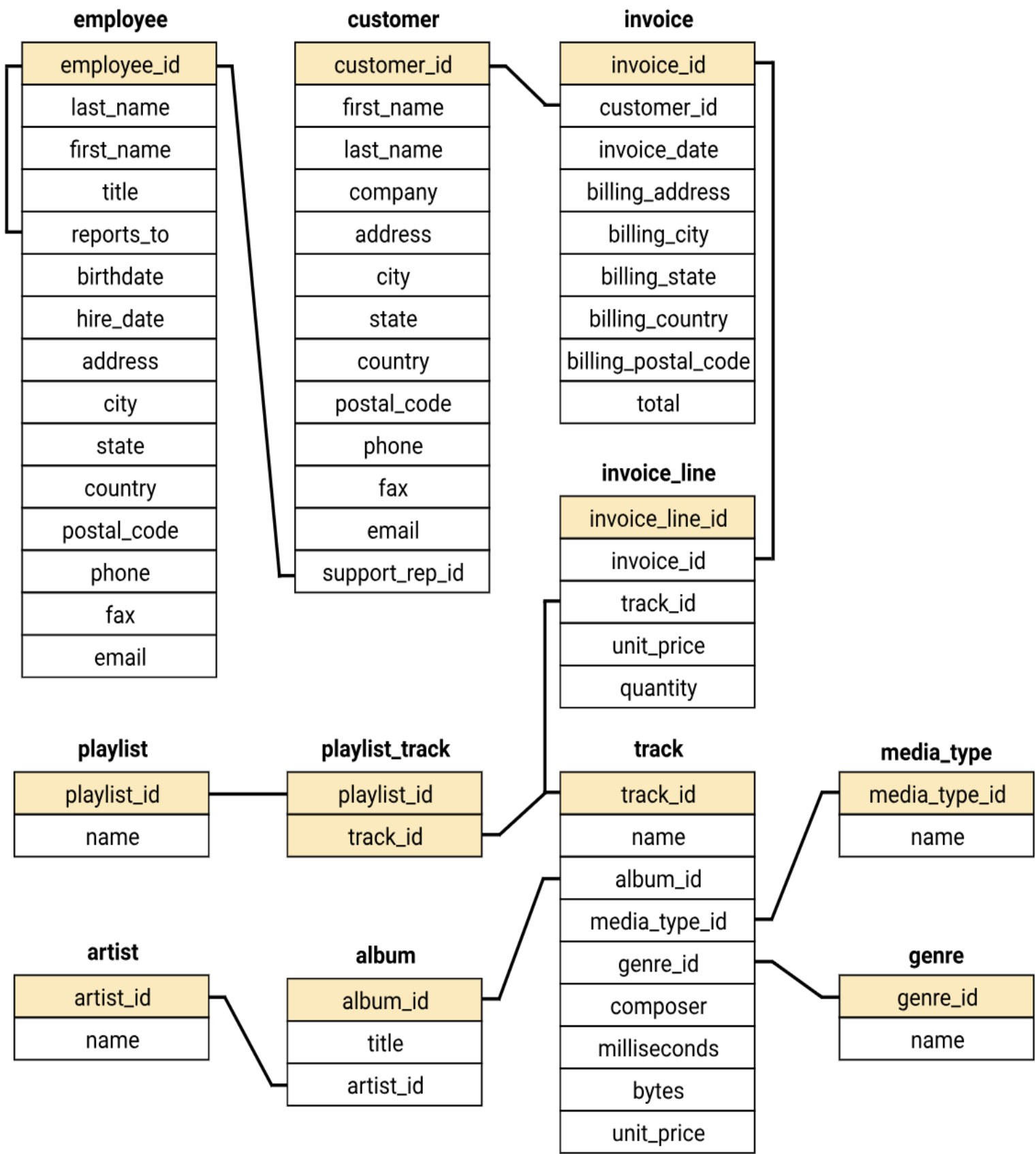
Hello

My name is Yogesh Gaonkar . In this project, I have utilized SQL queries to analyze and extract valuable insights from a digital music store database. The analysis addresses key business questions related to geographical growth, customer purchase power, total revenue, genre performance, and music band popularity. By answering these questions, the project aims to provide actionable recommendations that can drive business growth and optimize performance.



OBJECTIVE

The objective of this project is to leverage SQL queries to analyze a comprehensive digital music store database. This analysis aims to uncover critical insights across various dimensions of the business, including geographical growth, customer purchase power, total revenue, genre performance, and music band popularity. By addressing these key areas, the project seeks to provide stakeholders with actionable recommendations to enhance decision-making, drive business growth, improve customer engagement, and optimize overall performance.



Question 1: Who is the employee with the highest level in the company?

```
4
5 • SELECT
6      *
7 FROM
8      employee
9 ORDER BY levels DESC
10 LIMIT 1;
11
```

<div><div><</div><div>Result Grid</div><div><div></div></div><div>Filter Rows: <input type="text"/></div><div>Export: <div></div></div><div>Wrap Cell Content: <div></div></div><div>Fetch rows: <div></div></div></div>																
	employee_id	last_name	first_name	title	reports_to	levels	birthdate	hire_date	address	city	state	country	postal_code	phone	fax	email
▶	1	Adams	Andrew	General Manager	9	L6	18-02-1962 00:00	14-08-2016 00:00	11120 Jasper Ave NW	Edmonton	AB	Canada	T5K 2N1	+1 (780) 428-9482	+1 (780) 428-3457	andrew@chinookcorp.com

Question 2: What are the top five countries with the highest number of invoices in the digital music store?





```
L1
L2 • SELECT
L3     billing_country, COUNT(billing_country) AS country
L4 FROM
L5     invoice
L6 GROUP BY billing_country
L7 ORDER BY country DESC
L8 LIMIT 5;
L9
```



Result Grid			Filter Rows:
	billing_country	country	
▶	USA	131	
	Canada	76	
	Brazil	61	
	France	50	
	Germany	41	

Question 3: What are the details of the top three invoices with the highest total amount in the digital music store?

```
0
1 • SELECT
2     *
3 FROM
4     invoice
5 ORDER BY total DESC
6 LIMIT 3;
```

Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content:  Fetch rows: 									
	invoice_id	customer_id	invoice_date	billing_address	billing_city	billing_state	billing_country	billing_postal_code	total
▶	183	42	2018-02-09 00:00:00	9, Place Louis Barthou	Bordeaux	None	France	33000	23.759999999999998
	92	32	2017-07-02 00:00:00	696 Osborne Street	Winnipeg	MB	Canada	R3L 2B9	19.8
	526	5	2020-06-08 00:00:00	Klanova 9/506	Prague	None	Czech Republic	14700	19.8

Question 4 : What are the top three billing cities by total revenue in the digital music store?

```
27
28 • SELECT
29     billing_city, SUM(total) AS total
30 FROM
31     invoice
32 GROUP BY billing_city
33 ORDER BY total DESC
34 limit 3;
35
```

Result Grid			Filter Rows:	Export
	billing_city	total		
▶	Prague	273.240000000000007		
	Mountain View	169.29		
	London	166.32		



Question 5: Who is the customer with the highest total spending in the digital music store?

```
• SELECT
    customer.first_name,
    customer.customer_id,
    SUM(invoice.total) AS total
FROM
    customer
JOIN
    invoice
ON
    customer.customer_id = invoice.customer_id
GROUP BY
    customer.customer_id,
    customer.first_name
ORDER BY
    total DESC
limit 1;
```

37 • SELECT

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

Fetch rows:

	first_name	customer_id	total
▶	František	5	144.54000000000002

Question 6: What are the email addresses, first names, and last names of customers who have purchased rock music tracks in the digital music store?

```
54
55
56 • select email, first_name, last_name
57   from customer
58  join invoice
59   on customer.customer_id = invoice.invoice_id
60  join invoice_line
61   on invoice.invoice_id= invoice_line.invoice_id
62  where track_id in (select track_id from track
63                    join genre
64                     on track.genre_id= genre.genre_id
65                     where genre.name = "rock")
66  order by email;
```

Result Grid		Filter Rows:		Export:	
	email	first_name	last_name		
▶	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	aaronmitchell@yahoo.ca	Aaron	Mitchell		
	astrid.gruber@apple.at	Astrid	Gruber		
	dmiller@comcast.com	Dan	Miller		
	dmiller@comcast.com	Dan	Miller		
	edfrancis@yachoo.ca	Edward	Francis		
	fharris@google.com	Frank	Harris		
	fharris@google.com	Frank	Harris		
	fharris@google.com	Frank	Harris		
	fharris@google.com	Frank	Harris		
	hholy@gmail.com	Helena	HolÃ ½		
	jacksmith@microsoft.com	Jack	Smith		
	jacksmith@microsoft.com	Jack	Smith		
	joakim.johansson@yah...	Joakim	Johansson		
	johavanderberg@yaho...	Johannes	Van der B...		
	johnngordon22@yahoo....	John	Gordon		
	johnngordon22@yahoo....	John	Gordon		
Result 12					

Question 7: Which artists have the highest number of rock songs in the digital music store?

```
69
70 • SELECT
71     artist.name,
72     artist.artist_id,
73     COUNT(artist.artist_id) AS song
74 FROM
75     track
76 JOIN
77     album ON album.album_id = track.album_id
78 JOIN
79     artist ON artist.artist_id = album.artist_id
80 JOIN
81     genre ON genre.genre_id = track.genre_id
82 WHERE
83     genre.name = 'rock'
84 GROUP BY
85     artist.artist_id, artist.name
86 ORDER BY
87     song DESC
88 LIMIT 10;
89
```

	name	artist_id	song
▶	AC/DC	1	18
	Aerosmith	3	15
	Audioslave	8	14
	Led Zeppelin	22	14
	Alanis Morissette	4	13
	Alice In Chains	5	12
	Frank Zappa & Captain Beefheart	23	9
	Accept	2	4

Question 8: Which tracks in the digital music store have durations longer than the average track duration?

```
90
91 • select name,milliseconds
92 from track
93 where milliseconds > (select avg(milliseconds) from track)
94 order by milliseconds desc
95 LIMIT 3;
96
```

Result Grid			Filter Rows:	Exp
	name	milliseconds		
▶	How Many More Times	711836		
	Advance Romance	677694		
	Sleeping Village	644571		



Question 9: What are the most popular music genres in each country based on the number of purchases?

```
98
99
100 • WITH popular_genre AS (
101     SELECT
102         COUNT(invoice_line.quantity) AS purchases,
103         customer.country,
104         genre.name AS genre_name,
105         genre.genre_id,
106         ROW_NUMBER() OVER (PARTITION BY customer.country ORDER BY COUNT(invoice_line.quantity) DESC) AS rowno
107     FROM
108         invoice_line
109         JOIN invoice ON invoice.invoice_id = invoice_line.invoice_id
110         JOIN customer ON customer.customer_id = invoice.customer_id
111         JOIN track ON track.track_id = invoice_line.track_id
112         JOIN genre ON genre.genre_id = track.genre_id
113     GROUP BY
114         customer.country,
115         genre.name,
116         genre.genre_id
117     ORDER BY
118         customer.country ASC,
119         purchases DESC
120 )
121 SELECT
122     *
123 FROM
124     popular_genre
125 WHERE
126     rowno <= 1;
127
128
```

	purchases	country	genre_name	genre_id	rowno
▼	1	Argentina	Rock	1	1
	18	Australia	Rock	1	1
	6	Austria	Rock	1	1
	5	Belgium	Rock	1	1
	26	Brazil	Rock	1	1
	57	Canada	Rock	1	1
	7	Chile	Rock	1	1
	14	Czech Republic	Rock	1	1
	6	Denmark	Rock	1	1
	6	Finland	Rock	1	1
	26	France	Rock	1	1
	28	Germany	Rock	1	1
	4	Hungary	Rock	1	1
	13	India	Rock	1	1
	2	Ireland	Rock	1	1
	3	Italy	Rock	1	1
	6	Netherlands	Rock	1	1
	2	Norway	Metal	3	1
	14	Poland	Rock	1	1
	23	Portugal	Rock	1	1
	4	Spain	Metal	3	1
	5	Sweden	Rock	1	1
	47	United Kingdom	Rock	1	1
	70	USA	Rock	1	1



Question: For each country, who are the customers with the highest total spending in the digital music store?

```
music x pizzahut
Limit to 2000 rows

130 • with recursive
131   customter_with_country as (
132     select customer.customer_id,first_name,last_name,billing_country,sum(total) as total_spending
133     from invoice
134     join customer on customer.customer_id = invoice.customer_id
135     group by 1,2,3,4
136     order by 2,3 desc),
137
138   country_max_spending as(
139     select billing_country ,max(total_spending)as max_spending
140     from customter_with_country
141     group by billing_country)
142
143   select cc.billing_country,cc.total_spending,cc.first_name,cc.last_name
144   from customter_with_country as cc
145   join country_max_spending as ms
146   on cc.billing_country = ms.billing_country
147   where cc.total_spending = ms.max_spending
148   order by 1;
149
```

	billing_country	total_spending	first_name	last_name
▶	Argentina	39.6	Diego	Gutiérrez
	Australia	81.18	Mark	Taylor
	Austria	69.3	Astrid	Gruber
	Belgium	60.38999999999999	Daan	Peeters
	Brazil	108.89999999999998	Luís	Gonçalves
	Canada	99.99	François	Tremblay
	Chile	97.02000000000001	Luis	Rojas
	Czech Republic	144.54000000000002	František	Wichterlov
	Denmark	37.61999999999999	Kara	Nielsen
	Finland	79.2	Terhi	Hämäläinen
	France	99.99	Wyatt	Girard
	Germany	94.05000000000001	Fynn	Zimmermann
	Hungary	78.21	Ladislav	Kovács
	India	111.86999999999999	Manoj	Pareek
	Ireland	114.83999999999997	Hugh	O'Reilly
	Italy	50.49	Lucas	Mancini
	Netherlands	65.34	Johannes	Van der Berg
	Norway	72.27000000000001	Bjørn	Hansen
	Poland	76.22999999999999	Stanisław	Wójcik
	Portugal	102.96000000000001	João	Fernandes
	Spain	98.01	Enrique	Muñoz
	Sweden	75.24	Joakim	Johansson
	United Kingdom	98.01	Phil	Hughes
	USA	98.01	Jack	Smith

THANK YOU

