Music Store Analysis

MYSQL PROJECT

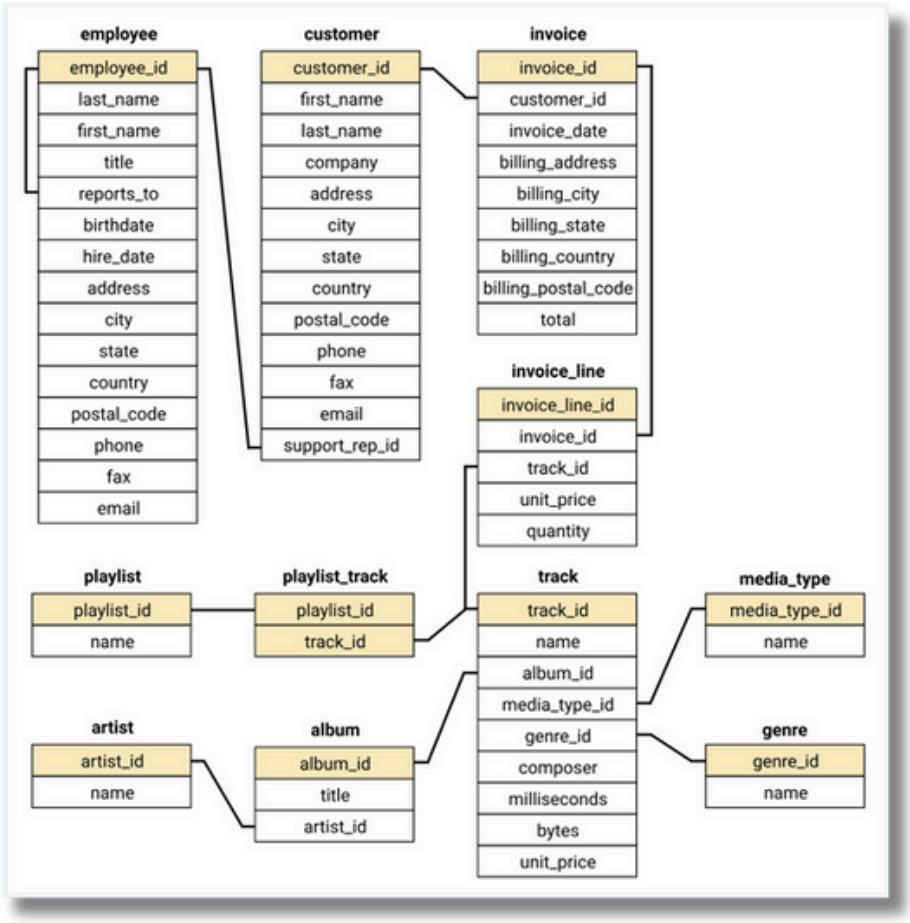
Objective

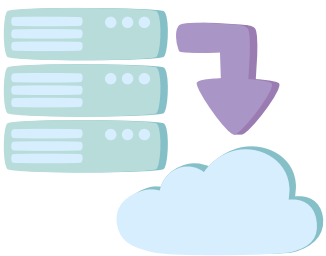
- The primary objective of the music store is to achieve sustainable business growth while addressing existing challenges.
- We need to examine dataset with SQL and help- the music store understand its business growth by answering simple questions.

Question Modes

- Easy - Queries include : SELECT, GROUP BY, ORDER BY, LIMIT, DESC.
- Moderate - Queries Include : JOINS, GROUP BY, ORDER BY, LIMIT.
- Advance - Queries Include : CTE (COMMON TABLE EXPRESSION).

Music Database





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Music Store Analysis

LEVEL - BASIC

Q1 Who is the senior most employee based on job title?

- Input :

```
select title, concat(first_name,' ',last_name) as employee_name,
levels, email, city, country from employee
order by levels desc
limit 1;
```

- Output :

title	employee_name	levels	email	city	country
Senior General Manager	Mohan Madan	L7	madan.mohan@chinookcorp.com	Edmonton	Canada

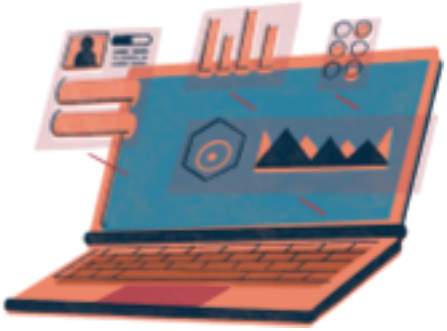
Q2 Which country have the most invoices

- Input :

```
select count(*) as invoice_counts, billing_country from invoice
group by billing_country
order by invoice_counts desc;
```

- Output :

invoice_counts	billing_country
131	USA
76	Canada
61	Brazil
50	France
41	Germany
30	Czech Republic
29	Portugal
28	United Kingdom
21	India
13	Ireland
13	Chile
11	Finland
11	Spain
10	Poland
10	Denmark



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Music Store Analysis

LEVEL - BASIC

Q3 what are top 3 values of total invoices?

- Input :

```
select customer_id, total from invoice
order by total desc
limit 3;
```

- Output :

	customer_id	total
▶	42	23.759999999999998
	32	19.8
	3	19.8

Q4 Which city has the best customers? We would like to through a promotional Music Festival in 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 and sum of all invoice totals.

- Input :

```
select * from customer;
select sum(total) as invoice_total, billing_city from invoice
group by billing_city
order by invoice_total desc;
```

- Output :

	invoice_total	billing_city
▶	273.24000000000007	Prague
	169.29	Mountain View
	166.32	London
	158.4	Berlin
	151.47	Paris
	129.69	SÃ£o Paulo
	114.83999999999997	Dublin
	111.86999999999999	Delhi
	108.89999999999998	SÃ£o JosÃ© dos Campos

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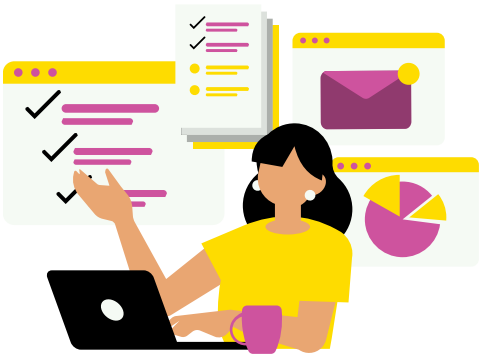
Music Store Analysis

LEVEL - MODERATE

Q1 Write query to return email, first name, last name & Genre of Rock Music listners. Return your list by alphabetically by email starting with A.

- Input :

```
select distinct c.email, concat(c.first_name,' ',c.last_name) as customer_name
from customer as c
join invoice as i on c.customer_id = i.customer_id
join invoice_line as il on i.invoice_id = il.invoice_id
where track_id in(
select track_id from track as t
join genre as g on t.genre_id = g.genre_id
where g.name like 'Rock')
order by email;
```



- Output :

email	customer_name
aaronmitchell@yahoo.ca	Aaron Mitchell
alero@uol.com.br	Alexandre Rocha
astrid.gruber@apple.at	Astrid Gruber
bjorn.hansen@yahoo.no	BjÃ¸rn Hansen
camille.bernard@yahoo.fr	Camille Bernard
daan_peeters@apple.be	Daan Peeters
diego.gutierrez@yahoo.ar	Diego GutiÃ©rrez
dmiller@comcast.com	Dan Miller
dominiquelefebvre@gmail.com	Dominique Lefebvre
edfrancis@yachoo.ca	Edward Francis
eduardo@woodstock.com.br	Eduardo Martins
ellie.sullivan@shaw.ca	Ellie Sullivan
emma_jones@hotmail.com	Emma Jones
enrique_munoz@yahoo.es	Enrique MuÃ±oz
fernadaramos4@uol.com.br	Fernanda Ramos
fharris@google.com	Frank Harris
fralston@gmail.com	Frank Ralston
frantisekw@jetbrains.com	FrantiÅ¡ek Wichterl...
ftremblay@gmail.com	FranÃ§ois Tremblay
fzimmermann@yahoo.de	Fynn Zimmermann

Result 32

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Music Store Analysis

LEVEL - MODERATE

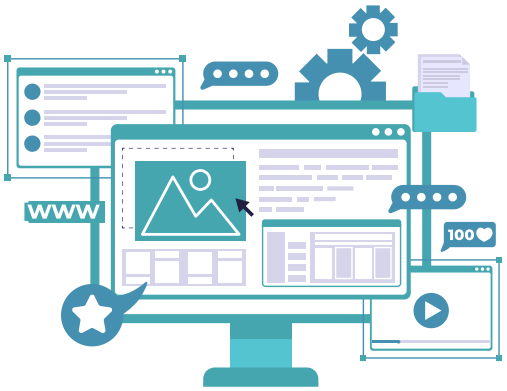
Q2 Lets invite the artists who have written most rock music in our dataset.
Write a query that returns Artist name and total track count of the top 10 rock bands.

- Input :

```
select a.name, count(t.track_id) as tracks
from artist as a
join album as al on a.artist_id = al.artist_id
join track as t on al.album_id = t.album_id
join genre as g on t.genre_id = g.genre_id
where g.name like 'Rock'
group by a.name
order by tracks desc
limit 10;
```

- Output :

name	tracks
AC/DC	18
Aerosmith	15
Audioslave	14
Led Zeppelin	14
Alanis Morissette	13
Alice In Chains	12
Frank Zappa & Captain Beefheart	9
Accept	4



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Music Store Analysis

LEVEL - MODERATE

Q3 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 lenght with the longest songs listed first.

- Input :

```
select name, milliseconds from track
where milliseconds > (
select avg(milliseconds) as avg_length from track)
order by milliseconds desc;
```

- Output :

name	milliseconds
How Many More Times	711836
Advance Romance	677694
Sleeping Village	644571
You Shook Me(2)	619467
Talkin' 'Bout Women Obviously	589531
Stratus	582086
No More Tears	555075
The Alchemist	509413
Wheels Of Confusion / The Straightener	494524
Book Of Thel	494393
You Oughta Know (Alternate)	491885
Terra	482429
Snoopy's search-Red baron	456071
Sozinho (Hitmakers Classic Mix)	436636
Master Of Puppets	436453
Stone Crazy	433397
Snowblind	420022
Computadores Fazem Arte	404323
Jerusalem	402390
Dazed and Confused	401920
The Winner Loses	392254

track 34

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Music Store Analysis

LEVEL - ADVANCE

Q1 Find how much amount spend by each customer on artists?
Write a query to return customer name, artist name and total spent.

- Input :

```
with best_selling_artist as (
select a.artist_id, a.name as artist_name, sum(il.unit_price * il.quantity) as total_sales
from invoice_line as il
join track as t on t.track_id = il.track_id
join album as al on al.album_id = t.album_id
join artist as a on a.artist_id = al.artist_id
group by 1, 2
order by 3 desc
limit 1 )
select c.customer_id, concat(c.first_name,' ',c.last_name) as customer, bsa.artist_name,
round(sum(il.unit_price * il.quantity),2) as amount_spent
from invoice as i
join customer as c on c.customer_id = i.customer_id
join invoice_line as il on il.invoice_id = i.invoice_id
join track as t on t.track_id = il.track_id
join album as al on al.album_id = t.album_id
join best_selling_artist as bsa on bsa.artist_id = al.artist_id
group by 1,2,3
order by 4 desc;
```

- Output :

	customer_id	customer	artist_name	amount_spent
▶	54	Steve Murray	AC/DC	17.82
	53	Phil Hughes	AC/DC	10.89
	21	Kathy Chase	AC/DC	10.89
	49	StanisÅ‚aw WÃ³jcik	AC/DC	9.9
	1	LuÃ-s GonÃ§alves	AC/DC	7.92
	24	Frank Ralston	AC/DC	7.92
	31	Martha Silk	AC/DC	3.96
	16	Frank Harris	AC/DC	2.97
	42	Wyatt Girard	AC/DC	2.97
	6	Helena HolÃ½	AC/DC	2.97

Result 35 ×

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Music Store Analysis

LEVEL - ADVANCE

Q2 We want to find out most popular Music Genre for each country.
We determine the most popular genre as the genre with the highest amount of purchase.
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

- Input :

```
with popular_genre as (
select count(il.quantity) as purchase, c.country, g.name, g.genre_id,
row_number() over(partition by c.country order by count(il.quantity) desc) as row_no
from invoice_line as il
join invoice as i on i.invoice_id = il.invoice_id
join customer as c on c.customer_id = i.customer_id
join track as t on t.track_id = il.track_id
join genre as g on g.genre_id = t.genre_id
group by 2,3,4
order by c.country asc, purchase desc
)
select * from popular_genre where row_no <= 1;
```

- Output :

	purchase	country	name	genre_id	row_no
▶	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

Result 36 ×

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Music Store Analysis

LEVEL - ADVANCE

Q3 Write a query that determines the customer that has spent on music for each country. Write a query that returns a country along with the top customer and how much they spent. For countries the top amount is shared, provide all customers who spent this amount

- Input :

```
with customer_with_country as (
select c.customer_id, concat(c.first_name,' ',c.last_name) as customer_name, billing_country,
round(sum(total),2) as total_spending,
row_number() over(partition by billing_country order by sum(total) desc) as rowno
from invoice as i
join customer as c on c.customer_id = i.customer_id
group by 1, 2, 3
order by 3 asc, 4 desc)
select * from customer_with_country where rowno <= 1;
```

- Output :

customer_id	customer_name	billing_country	total_spending	rowno
56	Diego GutiÃ©rrez	Argentina	39.6	1
55	Mark Taylor	Australia	81.18	1
7	Astrid Gruber	Austria	69.3	1
8	Daan Peeters	Belgium	60.39	1
1	LuÃ-s GonÃ§alves	Brazil	108.9	1
3	FranÃ§ois Tremblay	Canada	99.99	1
57	Luis Rojas	Chile	97.02	1
5	FrantiÅiek WichterlovÃi	Czech Republic	144.54	1
9	Kara Nielsen	Denmark	37.62	1
44	Terhi HÃ¤mÃ¤lÃ¤inen	Finland	79.2	1
42	Wyatt Girard	France	99.99	1
37	Fynn Zimmermann	Germany	94.05	1
45	Ladislav KovÃics	Hungary	78.21	1
58	Manoj Pareek	India	111.87	1
46	Hugh O'Reilly	Ireland	114.84	1
47	Lucas Mancini	Italy	50.49	1
48	Johannes Van der Berg	Netherlands	65.34	1
4	BiÃ rn Hansen	Norway	72.27	1

Result 37

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Music Store Analysis

MYSQL PROJECT

Project Resource

- CSV Files Dataset Link : https://shorturl.at/sEIUV
- SQL Database Link : https://bit.ly/3wYyp88
- GitHub Project Link :https://github.com/Zararahmed1996/SQL_Music_Store_Analysis

Profile Links

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