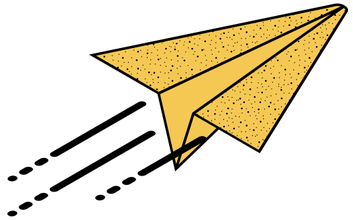
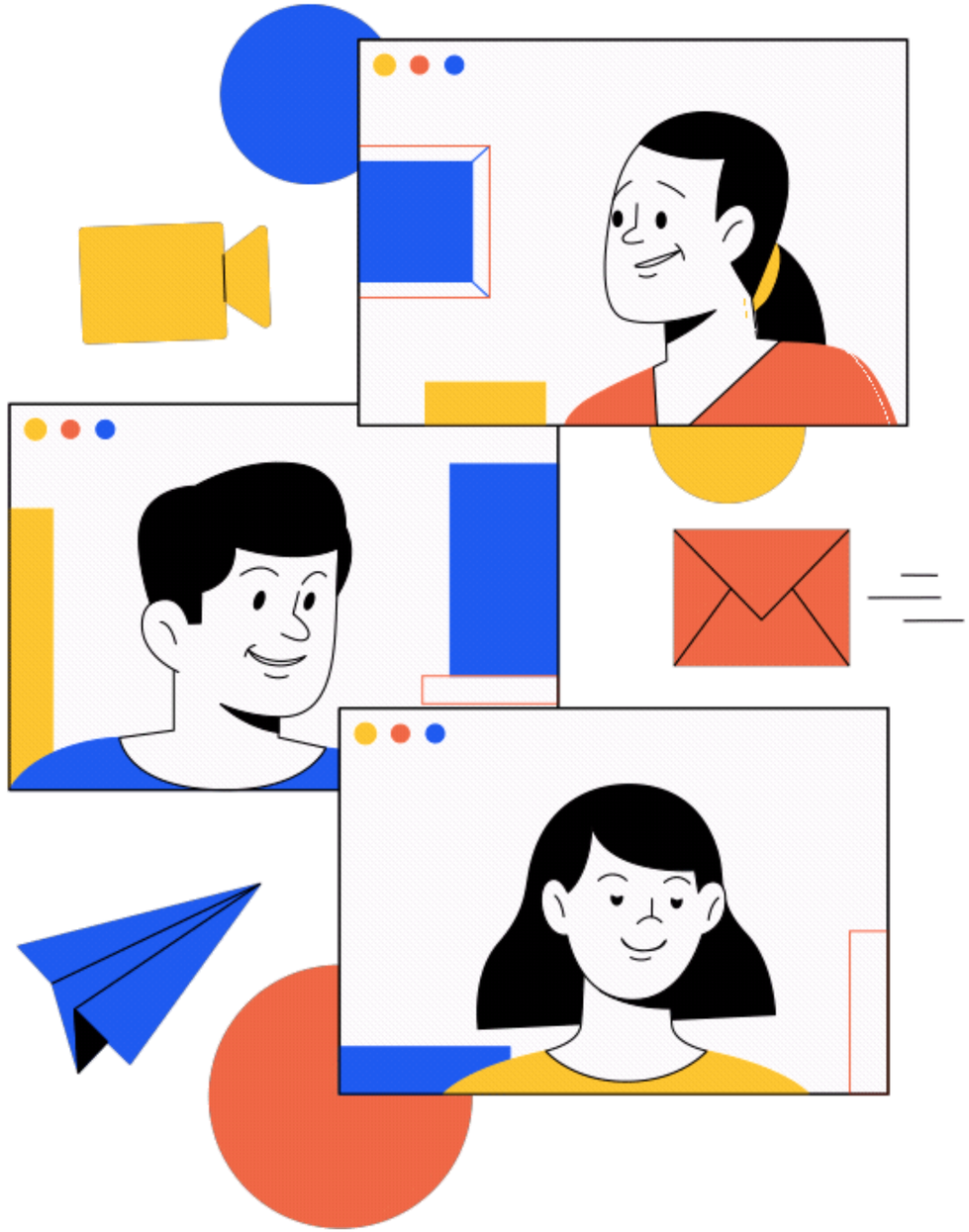
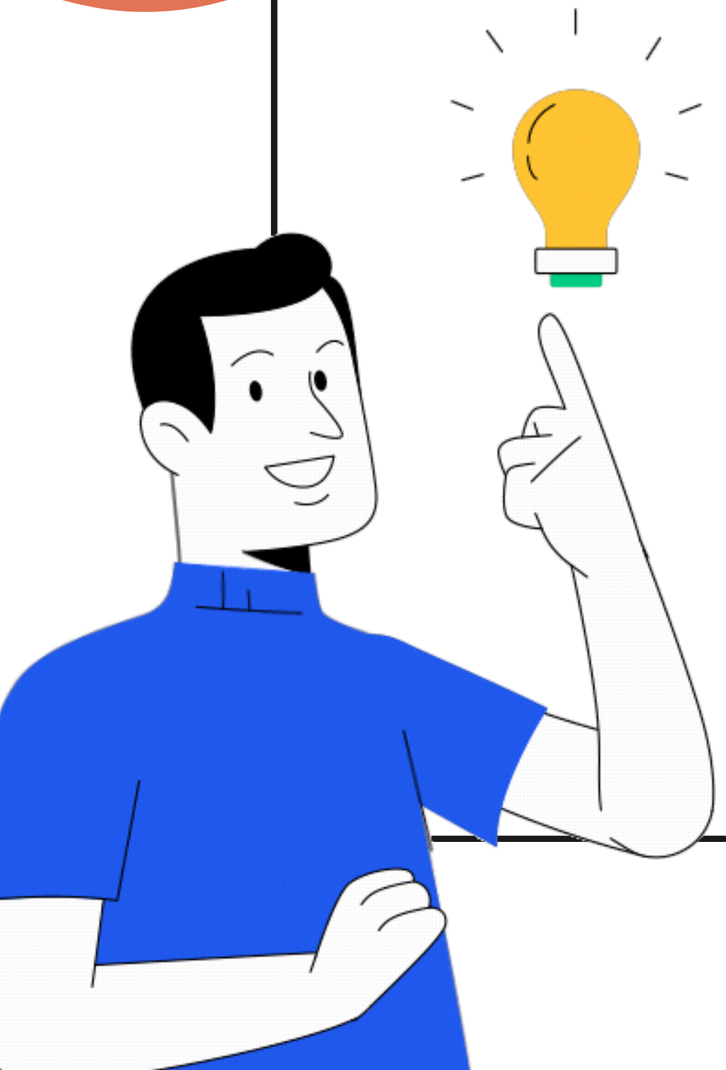


COMPLETE ANALYSIS

Music Store Data





INTRODUCTION

Hello, my name is Subha Mondal, and in this project, I have utilized SQL queries to solve questions related to Music store Data

SQL PROJECT- MUSIC STORE DATA ANALYSIS

Question Set 1 - Easy

1. Who is the senior most employee based on job title?
2. Which countries have the most Invoices?
3. What are top 3 values of total invoice?
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
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

WHO IS THE SENIOR MOST EMPLOYEE BASED ON JOB TITLE?

```sql
-- * Q1: Who is the senior most employee based on job title?*
select  first_name, last_name, levels from employee
order by levels desc
limit 1
```

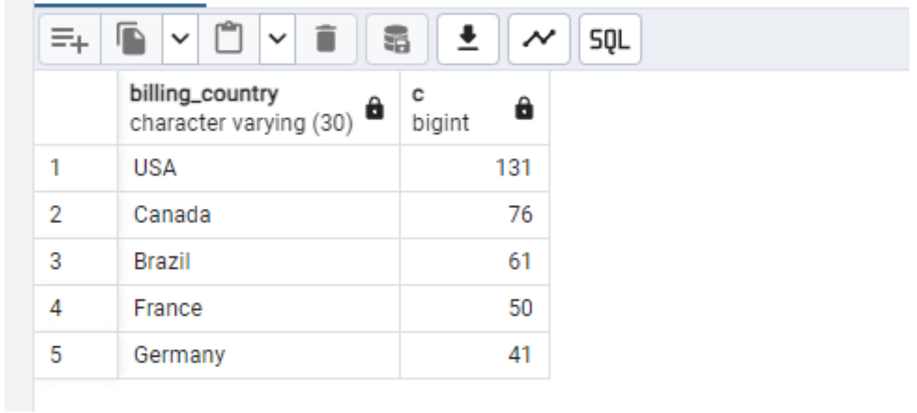
Data Output Messages Notifications

SQL

	first_name character (50)	last_name character (50)
1	Mohan	Madan

WHICH COUNTRIES HAVE THE MOST INVOICES?

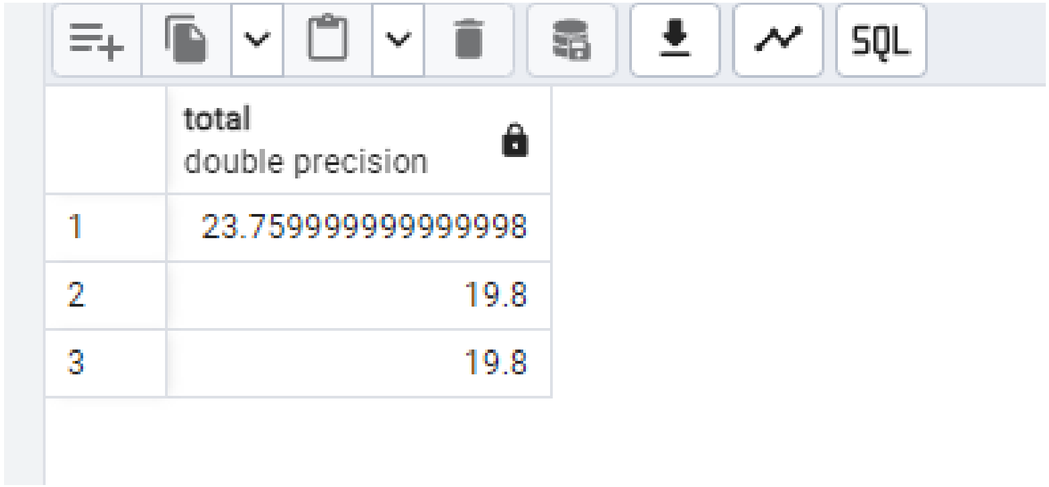
```sql
-- /* Q2: Which countries have the most Invoices? */
select billing_country, count(*) as c from invoice
group by billing_country
order by c desc
limit 5
```



	billing_country character varying (30)	c bigint
1	USA	131
2	Canada	76
3	Brazil	61
4	France	50
5	Germany	41

. WHAT ARE TOP 3 VALUES OF TOTAL INVOICE?

```sql
-- * Q3: What are top 3 values of total invoice? */
select total from invoice
order by total desc
limit 3
```



	total double precision
1	23.759999999999998
2	19.8
3	19.8

. 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

```
select sum(total) as tt , billing_city from invoice
group by billing_city
order by tt desc
```

	double precision	character varying (30)
1	273.24000000000007	Prague
2	169.29	Mountain View
3	166.32	London
4	158.4	Berlin
5	151.47	Paris
6	129.69	São Paulo
7	114.83999999999997	Dublin

. 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

```
select customer.customer_id,customer.first_name,customer.last_name,
sum(invoice.total) as total from customer
inner join invoice
on customer.customer_id = invoice.customer_id
group by customer.customer_id
order by total desc
limit 1
```

Data Output | Messages | Notifications

	customer_id [PK] integer	first_name character (50)	last_name character (50)	total double precision
1	5	R ...	Madhav	144.54000000000002

SQL PROJECT- MUSIC STORE DATA ANALYSIS

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
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
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

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

```sql
SELECT DISTINCT email,first_name, last_name , genre.name
FROM customer
JOIN invoice ON invoice.customer_id = customer.customer_id
JOIN invoice_line ON invoice_line.invoice_id = invoice.invoice_id
JOIN track ON track.track_id = invoice_line.track_id
JOIN genre ON genre.genre_id = track.genre_id
WHERE genre.name LIKE 'Rock'
ORDER BY email;
```

Data Output | Messages | Notifications

	email character varying (50)	first_name character (50)	last_name character (50)	name character varying (120)
1	aaronmitchell@yahoo.ca	Aaron	Mitchell	Rock
2	alero@uol.com.br	Alexandre	Rocha	Rock
3	astrid.gruber@apple.at	Astrid	Gruber	Rock
4	bjorn.hansen@yahoo.no	Bjørn	Hansen	Rock

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

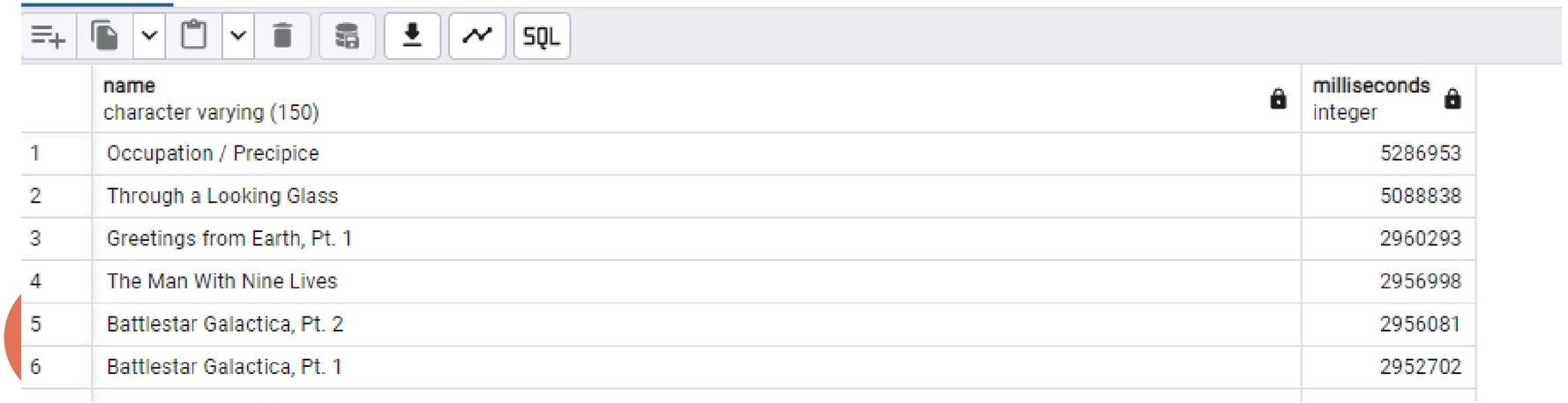
```sql
select artist.artist_id, artist.name,count(artist.artist_id) as numberofsong from track
join album on track.album_id = album.album_id
join artist on  album.artist_id = artist.artist_id
join genre on genre.genre_id = track.genre_id
where genre.name like 'Rock'
group by artist.artist_id
order by artist.name
limit 10
```

	artist_id [PK] character varying (50)	name character varying (120)	numberofsong bigint
1	1	AC/DC	18
2	2	Accept	4
3	3	Aerosmith	15
4	4	Alanis Morissette	13
5	5	Alice In Chains	12
6	8	Audioslave	14
7	76	Creedence Clearwater Revival	40

Total rows: 10 of 10 Query complete 00:00:00.071 Ln 77, Col 1

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

```
select track.name,milliseconds from track
where milliseconds > ( select avg(milliseconds) from track)
order by milliseconds desc
```



	name character varying (150)	milliseconds integer
1	Occupation / Precipice	5286953
2	Through a Looking Glass	5088838
3	Greetings from Earth, Pt. 1	2960293
4	The Man With Nine Lives	2956998
5	Battlestar Galactica, Pt. 2	2956081
6	Battlestar Galactica, Pt. 1	2952702

SQL PROJECT- MUSIC STORE DATA ANALYSIS

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 spent

2. 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

FIND HOW MUCH AMOUNT SPENT BY EACH CUSTOMER ON ARTISTS? WRITE A QUERY TO RETURN CUSTOMER NAME, ARTIST NAME AND TOTAL SPENT

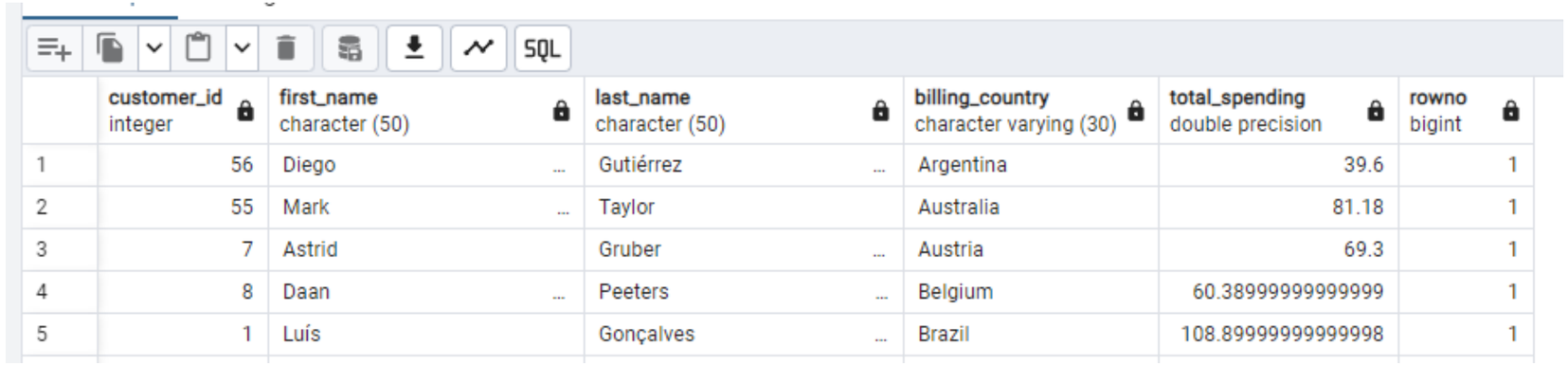
```
WITH best_selling_artist AS (
    SELECT artist.artist_id AS artist_id, artist.name AS artist_name,
    SUM(invoice_line.unit_price*invoice_line.quantity) AS total_sales
    FROM invoice_line
    JOIN track ON track.track_id = invoice_line.track_id
    JOIN album ON album.album_id = track.album_id
    JOIN artist ON artist.artist_id = album.artist_id
    GROUP BY 1
    ORDER BY 3 DESC
    LIMIT 1
)
SELECT c.customer_id, c.first_name, c.last_name, bsa.artist_name,
SUM(il.unit_price*il.quantity) AS amount_spent
FROM invoice as i
JOIN customer c ON c.customer_id = i.customer_id
JOIN invoice_line il ON il.invoice_id = i.invoice_id
JOIN track t ON t.track_id = il.track_id
JOIN album alb ON alb.album_id = t.album_id
JOIN best_selling_artist bsa ON bsa.artist_id = alb.artist_id
GROUP BY 1,2,3,4
ORDER BY 5 DESC;
```

	customer_id integer	first_name character (50)	last_name character (50)	artist_name character varying (120)	amount_spent double precision
1	46	Hugh	O'Reilly	Queen	27.719999999999985
2	38	Niklas	Schröder	Queen	18.81
3	3	François	Tremblay	Queen	17.82
4	34	João	Fernandes	Queen	16.830000000000002
5	53	Phil	Hughes	Queen	11.88
6	41	Marc	Dubois	Queen	11.88
7	47	Lucas	Mancini	Queen	10.89

Total rows: 43 of 43 Query complete 00:00:00.047 Ln 108, Col 1

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

```sql
WITH Customter_with_country AS (
        SELECT customer.customer_id,first_name,last_name,billing_country,
        SUM(total) AS total_spending,
        ROW_NUMBER() OVER(PARTITION BY billing_country ORDER BY SUM(total) DESC) AS RowNo
        FROM invoice
        JOIN customer ON customer.customer_id = invoice.customer_id
        GROUP BY 1,2,3,4
        ORDER BY 4 ASC,5 DESC)
SELECT * FROM Customter_with_country WHERE RowNo <= 1
```



	customer_id integer	first_name character (50)	last_name character (50)	billing_country character varying (30)	total_spending double precision	rowno bigint
1	56	Diego	Gutiérrez	Argentina	39.6	1
2	55	Mark	Taylor	Australia	81.18	1
3	7	Astrid	Gruber	Austria	69.3	1
4	8	Daan	Peeters	Belgium	60.38999999999999	1
5	1	Luís	Gonçalves	Brazil	108.89999999999998	1

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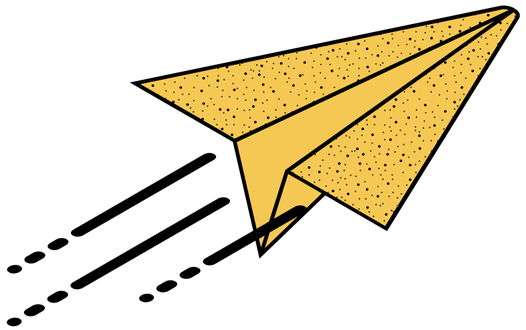

THANK YOU!