SQL PROJECT- MUSIC STORE DATA ANALYSIS

Ques on Set 1 - Easy

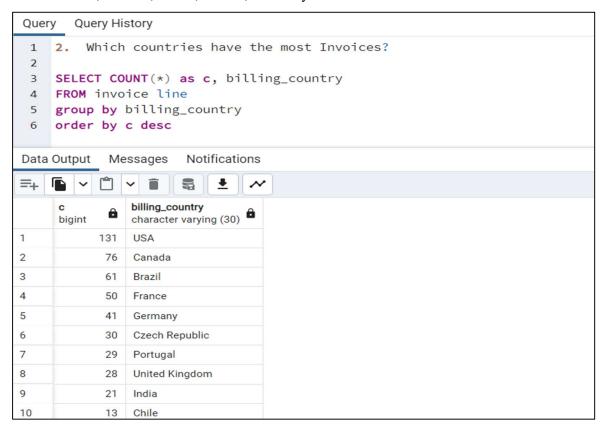
1. Who is the senior most employee based on job title?

Ans. Madan Mohan

Query History								
1	Q1: Who is the senior most employee based on job title?							
2								
3	select * from employee							
4	ORDER BY levels desc							
5	limit 1							
Data Output Messages Notifications								
	employee_id [PK] character varying (50)	last_name character	first_name character	title character varying (50)				
1	9	Madan	Mohan	Senior General Manager				

2. Which countries have the most Invoices?

Ans. USA, Canada, Brazil, France, Germany



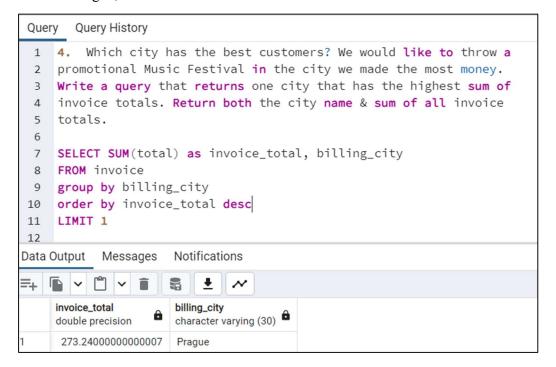
3. What are top 3 values of total invoice?

Ans. 23.7599999, 19.8, 19.8



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.

Ans. Prague, 273.24000000



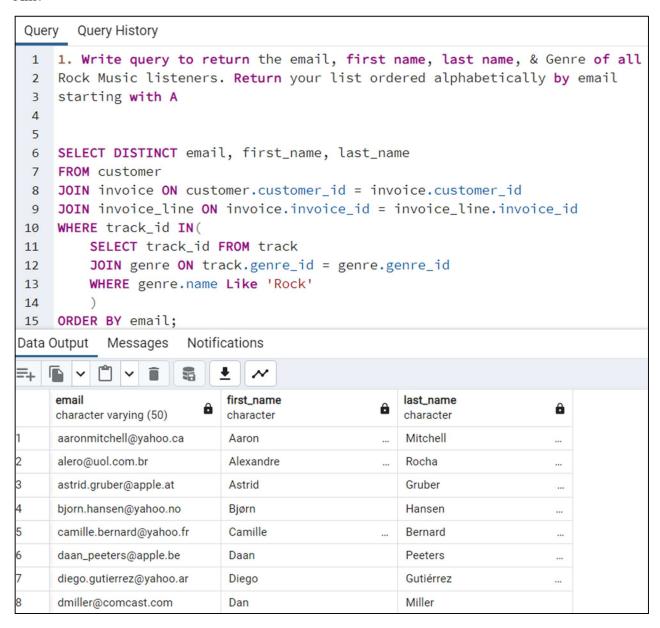
5. Who is the best customer? The customer who has spent the most money will be declared the best customer. Write a query that returns the person who has spent the most money.

Ans. R Madhav, 144.54000

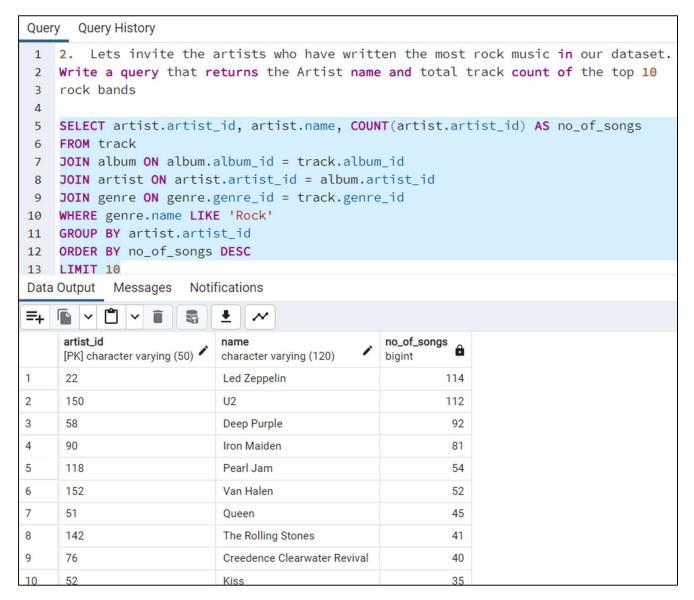


Ques on Set 2 – Moderate

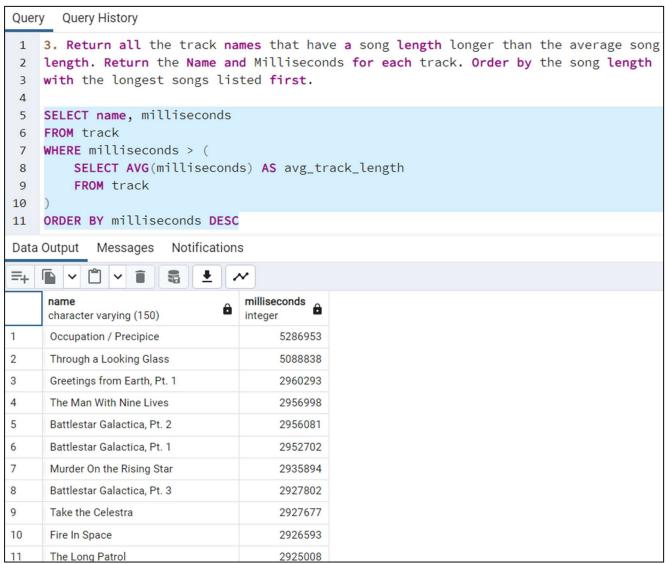
1. Write query to return the email, first name, last name, & Genre of all Rock Music listeners. Return your list ordered alphabetically by email starting with A



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.



Ques on 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.

```
Query
      Query History
    1. Find how much amount spent by each customer on artists?
1
    Write a query to return customer name, artist name and total spent.
2
3
    WITH best_selling_artist AS(
4
        SELECT artist_artist_id AS artist_id, artist.name AS artist_name,
5
        SUM(invoice_line.unit_price * invoice_line.quantity)
6
        FROM invoice_line
7
        JOIN track ON track.track_id = invoice_line.track_id
8
        JOIN album ON album.album_id = track.album_id
9
10
        JOIN artist ON artist.artist_id = album.artist_id
        GROUP BY 1
11
        ORDER BY 3 DESC
12
        LIMIT 1
13
14
    SELECT c.customer_id, c.first_name, c.last_name, bsa.artist_name,
15
    SUM(il.unit_price * il.quantity) AS amount_spent
16
    FROM invoice i
17
    JOIN customer c ON c.customer_id = i.customer_id
18
    JOIN invoice_line il ON il.invoice_id = i.invoice_id
19
20
    JOIN track t ON t.track_id = il.track_id
    JOIN album alb ON alb.album_id = t.album_id
21
    JOIN best_selling_artist bsa ON bsa.artist_id = alb.artist_id
22
23
    GROUP BY 1,2,3,4
    ORDER BY 5 DESC;
24
```

Data Output Messages Notifications							
	customer_id integer	first_name character	â	last_name character	â	artist_name character varying (120)	amount_spent double precision
1	46	Hugh		O'Reilly		Queen	27.71999999999985
2	38	Niklas		Schröder		Queen	18.81
3	3	François		Tremblay		Queen	17.82
4	34	João		Fernandes		Queen	16.8300000000000002
5	53	Phil		Hughes		Queen	11.88
6	41	Marc		Dubois		Queen	11.88
7	47	Lucas		Mancini		Queen	10.89

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.

```
Query
      Query History
   2. We want to find out the most popular music Genre for each country.
1
    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 retu
5
    all Genres.
 6
 7
    WITH popular_genre AS(
        SELECT COUNT(invoice_line.quantity) AS purchases, customer.country,
8
        genre.name, genre.genre_id, ROW_NUMBER() OVER(
9
            PARTITION BY customer.country ORDER BY COUNT(
10
            invoice_line.quantity) DESC
11
        ) AS RowNo
12
        FROM invoice_line
13
        JOIN invoice ON invoice.invoice_id = invoice_line.invoice_id
14
        JOIN customer ON customer.customer_id = invoice.customer_id
15
16
        JOIN track ON track.track_id = invoice_line.track_id
        JOIN genre ON genre.genre_id = track.genre_id
17
        GROUP BY 2,3,4
18
        ORDER BY 2 ASC, 1 DESC
19
20
21
    SELECT * FROM popular_genre WHERE RowNo <= 1</pre>
```

Data	Output Mes	sages Notifications						
=+								
	purchases bigint	country character varying (50)	name character varying (120)	genre_id character varying (50)	rowno bigint			
1	17	Argentina	Alternative & Punk	4	1			
2	34	Australia	Rock	1	1			
3	40	Austria	Rock	1	1			
4	26	Belgium	Rock	1	1			
5	205	Brazil	Rock	1	1			
6	333	Canada	Rock	1	1			
7	61	Chile	Rock	1	1			
8	143	Czech Republic	Rock	1	1			
9	24	Denmark	Rock	1	1			
10	46	Finland	Rock	1	1			

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.

```
Query
      Query History
1 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.
   WITH RECURSIVE
6
7
        customer_with_country AS(
        SELECT customer.customer_id, first_name, last_name, billing_country,
8
9
            SUM(total) AS total_spending
10
            FROM invoice
            JOIN customer ON customer.customer_id = invoice.customer_id
11
12
            GROUP BY 1,2,3,4
13
            ORDER BY 2,3 DESC
        ),
14
15
        country_max_spending AS(
        SELECT billing_country, MAX(total_spending) AS max_spending
16
17
        FROM customer_with_country
        GROUP BY billing_country
18
19
20
   SELECT cc.billing_country, cc.total_spending, cc.first_name, cc.last_name
21
22 FROM customer_with_country cc
   JOIN country_max_spending ms
23
24 ON cc.billing_country = ms.billing_country
   WHERE cc.total_spending = ms.max_spending
26 ORDER BY 1;
```

Data Output Messages Notifications								
=+								
	billing_country character varying (30)	total_spending double precision	first_name character	last_name character				
1	Argentina	39.6	Diego	Gutiérrez				
2	Australia	81.18	Mark	Taylor				
3	Austria	69.3	Astrid	Gruber				
4	Belgium	60.3899999999999	Daan	Peeters				
5	Brazil	108.8999999999998	Luís	Gonçalves				
6	Canada	99.99	François	Tremblay				
7	Chile	97.02000000000001	Luis	Rojas				
8	Czech Republic	144.540000000000002	R	Madhav				
9	Denmark	37.61999999999999	Kara	Nielsen				
10	Finland	79.2	Terhi	Hämäläinen				