QUESTIONS WITH QUERY AND OUTPUT

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

Query | Query History

```
1  SELECT first_name,
2  last_name FROM
3  employee
4  ORDER BY levels desc LIMIT 1;
```

Data Output | Messages | Notifications

	first_name character	last_name character
1	Mohan	Madan

2. Which countries have the most Invoices (TOP 5)?

Query | Query History

```
1  SELECT billing_country,
2  COUNT(invoice_id)
3  FROM invoice
4  GROUP BY 1 ORDER BY 2 DESC LIMIT 5;
```

Data Output | Messages | Notifications

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

3. What are top 3 values of total invoice?

Query | Query History

```
1  SELECT total FROM invoice
2  ORDER BY 1 desc LIMIT 3;
```

Data Output | Messages | Notifications

	total double precision
1	23.75999999999998
2	19.8
3	19.8

4. 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.

Query | Query History

```
1  SELECT billing_city, SUM(total) AS invoice_totals
2  FROM invoice
3  GROUP BY 1 ORDER BY 2 DESC
4  LIMIT 1;
```

Data Output | Messages | Notifications

	billing_city character varying (30)	invoice_totals double precision
1	Prague	273.24000000000007

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

Query | Query History

```
1  SELECT c.customer_id,c.first_name,c.last_name, SUM(i.total) as Total_Spent
2  FROM customer c JOIN
3  invoice i ON
4  c.customer_id = i.customer_id
5  GROUP BY 1
6  ORDER BY 4 DESC LIMIT 1;
```

Data Output | Messages | Notifications

	customer_id [PK] integer	first_name character	last_name character	total_spent double precision
1	5	R ...	Madhav	144.54000000000002

6. 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

Query | Query History

```
1  SELECT DISTINCT c.email,c.first_name,c.last_name
2  FROM customer c JOIN
3  invoice i ON c.customer_id = i.customer_id
4  JOIN invoice_line il ON i.invoice_id = il.invoice_id
5  JOIN track t ON t.track_id = il.track_id
6  JOIN genre g ON g.genre_id = t.genre_id
7  WHERE g.name = 'Rock' ORDER by 1;
```

Data Output | Messages | Notifications

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

Total rows: 59 of 59 | Query complete 00:00:00.117

7. Let's invite the artists who have written the most rock music in the dataset. Write a query that returns the Artist name and total track count of the top 10 rock bands.

Query | Query History

```
SELECT art.name, COUNT(art.artist_id) AS Total_tracks FROM artist art
JOIN album a on art.artist_id = a.artist_id
JOIN track t on a.album_id = t.album_id
JOIN genre g on t.genre_id = g.genre_id
WHERE g.name = 'Rock'
GROUP BY 1
ORDER BY 2 DESC
LIMIT 10;
```

Data Output | Messages | Notifications

	name character varying (120)	total_tracks bigint
1	Led Zeppelin	114
2	U2	112
3	Deep Purple	92
4	Iron Maiden	81
5	Pearl Jam	54
6	Van Halen	52
7	Queen	45
8	The Rolling Stones	41
9	Creedence Clearwater Revival	40
10	Kiss	35

8. 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.

Query | Query History

```
SELECT name,milliseconds as length_ms FROM track
WHERE milliseconds> (SELECT avg(milliseconds) FROM track)
ORDER BY 2 DESC;
```

Data Output | Messages | Notifications

	name character varying (150)	length_ms 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
7	Murder On the Rising Star	2935894

Total rows: 494 of 494 | Query complete 00:00:00.104

9. Find TOP 10 amount spent by each customer on artists? Write a query to return customer name, artist name and total spent.

Query | Query History

```
SELECT c.first_name,c.last_name,a.name AS Artist_Name,SUM(il.unit_price* il.quantity) as Total_Spent
FROM artist a
JOIN album al ON a.artist_id = al.artist_id
JOIN track t ON al.album_id = t.album_id
JOIN invoice_line il ON t.track_id = il.track_id
JOIN invoice i ON i.invoice_id = il.invoice_id
JOIN customer c ON c.customer_id = i.customer_id
GROUP BY 1,2,3
ORDER BY 4 desc LIMIT 10;
```

Data Output | Messages | Notifications

	first_name character	last_name character	artist_name character varying (120)	total_spent double precision
1	Hugh	O'Reilly	Queen	27.719999999999985
2	Wyatt	Girard	Frank Sinatra	23.75999999999999
3	Helena	Holý	Red Hot Chili Peppers	19.799999999999997
4	François	Tremblay	The Who	19.799999999999997
5	Robert	Brown	Creedence Clearwater Revival	19.799999999999997
6	R	Madhav	Kiss	19.799999999999997
7	Aaron	Mitchell	James Brown	19.799999999999997
8	Hugh	O'Reilly	Nirvana	18.81
9	Niklas	Schröder	Queen	18.81
10	Heather	Leacock	House Of Pain	18.81

10. 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 number 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

```
SELECT country,genre_name FROM
(SELECT COUNT(il.quantity) AS purchases, c.country, g.name as genre_name, g.genre_id,
ROW_NUMBER() OVER(PARTITION BY c.country ORDER BY COUNT(il.quantity) DESC) AS RowNo
FROM invoice_line il
JOIN invoice i ON i.invoice_id = il.invoice_id
JOIN customer c ON c.customer_id = i.customer_id
JOIN track t ON t.track_id = il.track_id
JOIN genre g ON g.genre_id = t.genre_id
GROUP BY 2,3,4
ORDER BY 2 ASC, 1 DESC) as A
WHERE RowNo = '1'
```

Data Output | Messages | Notifications

	country character varying (50)	genre_name character varying (120)
1	Argentina	Alternative & Punk
2	Australia	Rock
3	Austria	Rock
4	Belgium	Rock
5	Brazil	Rock
6	Canada	Rock

Total rows: 24 of 24 | Query complete 00:00:00.053 | Ln 9, Col 15

11. 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

```
SELECT country,first_name,last_name,total_spending FROM
(
    SELECT c.customer_id,first_name,last_name,billing_country as country,SUM(total) AS total_spending,
    ROW_NUMBER() OVER(PARTITION BY billing_country ORDER BY SUM(total) DESC) AS RowNo
    FROM invoice i
    JOIN customer c ON c.customer_id = i.customer_id
    GROUP BY 1,2,3,4
    ORDER BY 4 ASC,5 DESC
)AS A
WHERE RowNo <=1;
```

Data Output | Messages | Notifications

	country character varying (30)	first_name character	last_name character	total_spending double precision
1	Argentina	Diego	Gutiérrez	39.6
2	Australia	Mark	Taylor	81.18
3	Austria	Astrid	Gruber	69.3
4	Belgium	Daan	Peeters	60.38999999999999
5	Brazil	Luís	Gonçalves	108.89999999999998
6	Canada	François	Tremblay	99.99
7	Chile	Luis	Rojas	97.02000000000001
8	Czech Republic	R	Madhav	144.54000000000002
9	Denmark	Kara	Nielsen	37.61999999999999
10	Finland	Terhi	Hämäläinen	79.2
11	France	Wyatt	Girard	99.99
12	Germany	Fynn	Zimmermann	94.05000000000001

Total rows: 24 of 24 | Query complete 00:00:00.057