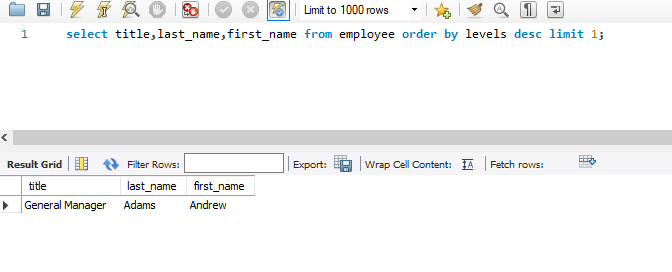
**MUSIC STORE DATA ANALYSIS**

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

**Ans.**

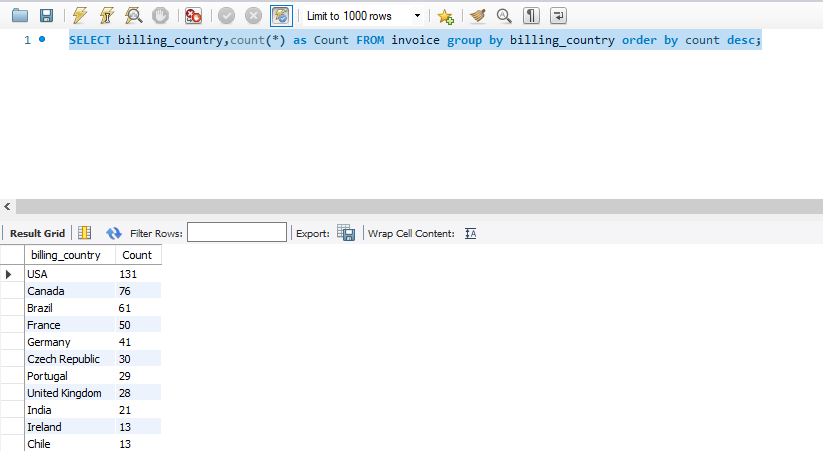
select title,last\_name,first\_name from employee order by levels desc limit 1;

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**2. Which countries have the most Invoices.**

**Ans.**

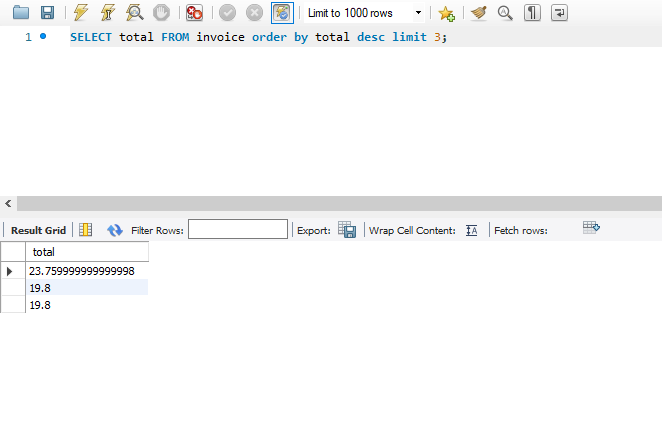
SELECT billing\_country,count(\*) as Count FROM invoice group by billing\_country order by count desc;



**3. What are top 3 values of total invoice.**

**Ans.**

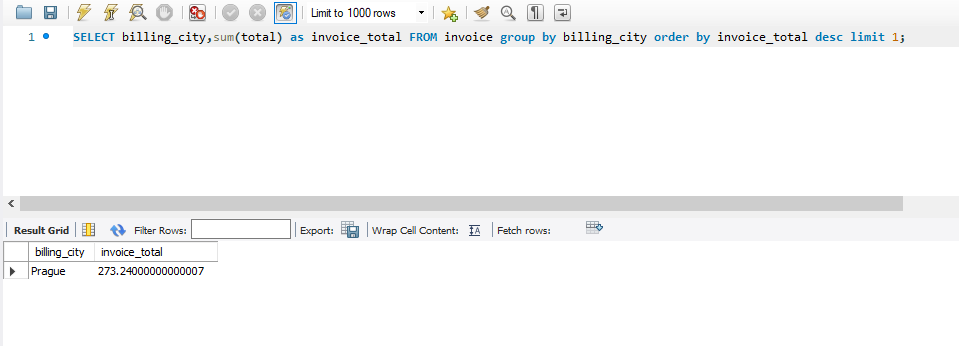
SELECT total FROM invoice order by total desc limit 3;

****

**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.**

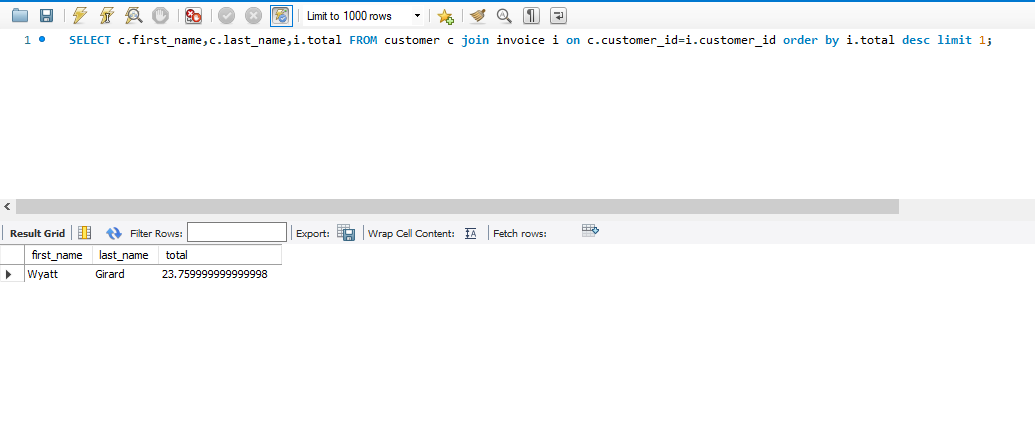
SELECT billing\_city,sum(total) as invoice\_total FROM invoice group by billing\_city order by invoice\_total desc limit 1;



**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.**

SELECT c.first\_name,c.last\_name,i.total FROM customer c join invoice i on c.customer\_id=i.customer\_id order by i.total desc limit 1;



**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.**

**Ans.**

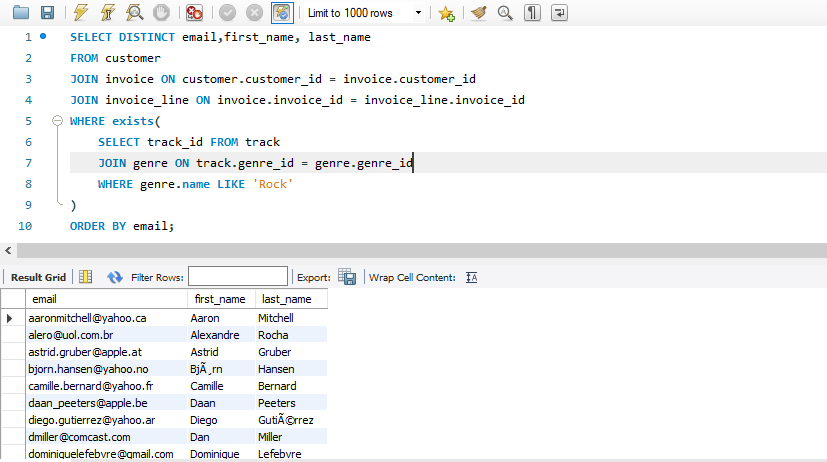
SELECT DISTINCT email,first\_name, last\_name FROM customer

JOIN invoice ON customer.customer\_id = invoice.customer\_id

JOIN invoice\_line ON invoice.invoice\_id = invoice\_line.invoice\_id

WHERE exists (SELECT track\_id FROM track JOIN genre ON track.genre\_id = genre.genre\_id

WHERE genre.name LIKE 'Rock') ORDER BY email;

****

**7. 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.**

**Ans.**

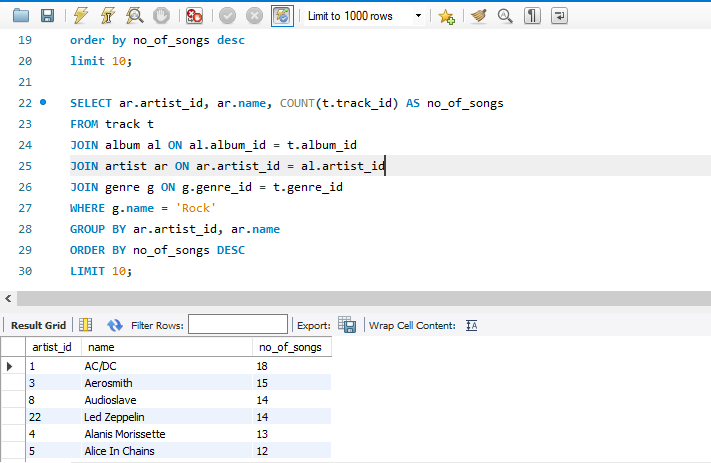
SELECT ar.artist\_id, ar.name, COUNT(t.track\_id) AS no\_of\_songs FROM track t

JOIN album al ON al.album\_id = t.album\_id

JOIN artist ar ON ar.artist\_id = al.artist\_id

JOIN genre g ON g.genre\_id = t.genre\_id

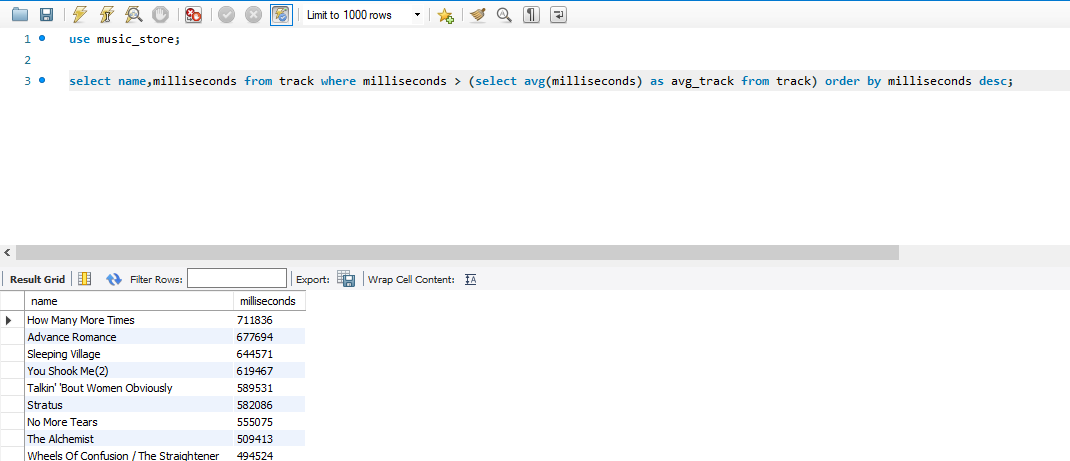
WHERE g.name = 'Rock' GROUP BY ar.artist\_id, ar.name ORDER BY no\_of\_songs DESC LIMIT 10;

****

**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.**

**Ans.**

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



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

**Ans.**

SELECT c.customer\_id, c.first\_name, c.last\_name, ar.artist\_id, ar.name AS artist\_name, SUM(il.unit\_price \* il.quantity) AS total\_spent FROM customer c

JOIN invoice i ON c.customer\_id = i.customer\_id

JOIN invoice\_line il ON i.invoice\_id = il.invoice\_id

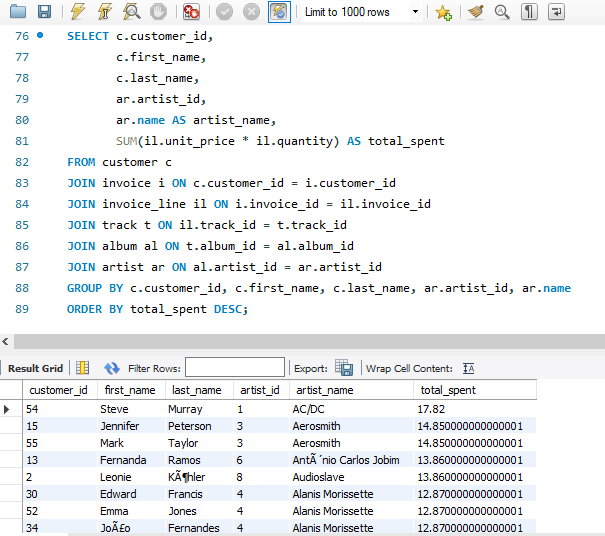
JOIN track t ON il.track\_id = t.track\_id

JOIN album al ON t.album\_id = al.album\_id

JOIN artist ar ON al.artist\_id = ar.artist\_id

GROUP BY c.customer\_id, c.first\_name, c.last\_name, ar.artist\_id, ar.name

ORDER BY total\_spent DESC;



**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 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.**

**Ans.**

WITH popular\_genre AS (

SELECT COUNT(invoice\_line.quantity) AS purchases, customer.country, genre.name,genre.genre\_id,ROW\_NUMBER() OVER(PARTITION BY customer.country ORDER BY COUNT(invoice\_line.quantity) DESC) AS RowNo FROM invoice\_line

JOIN invoice ON invoice.invoice\_id = invoice\_line.invoice\_id

JOIN customer ON customer.customer\_id = invoice.customer\_id

JOIN track ON track.track\_id = invoice\_line.track\_id

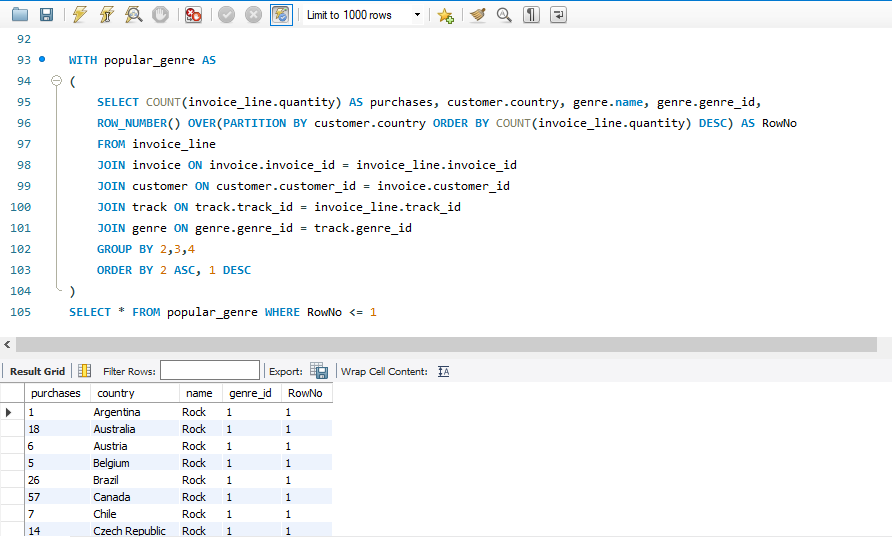
JOIN genre ON genre.genre\_id = track.genre\_id

GROUP BY 2,3,4

ORDER BY 2 ASC, 1 DESC

)

SELECT \* FROM popular\_genre WHERE RowNo <= 1

****

**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.**

**Ans.**

WITH RECURSIVE customter\_with\_country AS (

SELECT customer.customer\_id,first\_name,last\_name,billing\_country,SUM(total) AS total\_spending

FROM invoice

JOIN customer ON customer.customer\_id = invoice.customer\_id

GROUP BY 1,2,3,4 ORDER BY 2,3 DESC),country\_max\_spending AS(

SELECT billing\_country,MAX(total\_spending) AS max\_spending

FROM customter\_with\_country GROUP BY billing\_country)

SELECT cc.billing\_country, cc.total\_spending, cc.first\_name, cc.last\_name, cc.customer\_id

FROM customter\_with\_country cc

JOIN country\_max\_spending ms

ON cc.billing\_country = ms.billing\_country

WHERE cc.total\_spending = ms.max\_spending

ORDER BY 1;

