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

SELECT \* from employee

ORDER BY levels desc

limit 1

Q2:Which countries have the most Invoices?

SELECT COUNT(\*) as c,billing\_country

from invoice

group by billing\_country

order by c desc

Q3:What are top 3 values of total Invoice?

SELECT total from invoice

ORDER by total desc

limit 3

Q4: 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 invoice\_total,billing\_city

from invoice

group by billing\_city

ORDER BY invoice\_total desc

Q5: 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

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

GROUP BY customer.customer\_id

ORDER BY total desc

limit 1

Q6: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

SELECT DISTINCT c.email,c.first\_name,c.last\_name

from customer AS c

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

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

WHERE l.track\_id IN(

SELECT t.track\_id

from track t

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

WHERE g.name LIKE 'Rock'

)

ORDER BY c.email;

Q7 :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

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

from track AS t

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

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

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

WHERE gn.name LIKE 'Rock'

GROUP BY ar.artist\_id

ORDER BY no\_of\_songs DESC

LIMIT 10;

Q8: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 name,milliseconds

FROM track

WHERE milliseconds > (

SELECT AVG(milliseconds) AS song\_ln

FROM track)

ORDER BY milliseconds DESC

Q9: 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 ar.artist\_id AS artist\_id, ar.name AS artist\_name,SUM(il.unit\_price\*il.quantity) AS total\_sales

from invoice\_line AS il

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

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

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

GROUP BY 1

ORDER BY 3 DESC

LIMIT 1

)

SELECT c.first\_name,c.last\_name,c.customer\_id,bsa.artist\_name,SUM(il.unit\_price\*il.quantity) AS amount\_spent

from invoice 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 al ON al.album\_id = t.album\_id

JOIN best\_selling\_artist bsa ON bsa.artist\_id = al.artist\_id

GROUP BY 1,2,3,4

ORDER BY 5 DESC;

Q10: 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

WITH popular\_genre AS(

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 AS 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

)

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

Q11: 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

csr\_wd\_ctry AS (

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

FROM invoice i

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

GROUP BY 1,2,3,4

ORDER BY 1,5 DESC),

ctry\_mx\_spng AS(

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

FROM csr\_wd\_ctry

GROUP BY billing\_country)

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

FROM csr\_wd\_ctry cc

JOIN ctry\_mx\_spng ms ON ms.billing\_country = cc.billing\_country

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

ORDER BY 1;