--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 invoices?

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 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

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

Where track.track\_id IN (

SELECT track.track\_id FROM track

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

WHERE genre.name LIKE 'Rock'

)

ORDER BY 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 artist.artist\_id,artist.name,COUNT(artist.artist\_id) as number\_of\_songs

FROM track

JOIN album ON album.album\_id = track.album\_id

JOIN artist ON artist.artist\_id = album.artist\_id

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

WHERE genre.name LIKE 'Rock'

GROUP BY artist.artist\_id

ORDER BY number\_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 avg\_track\_length

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 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 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;

--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(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;

--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 customer\_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 customer\_with\_country

WHERE RowNo <= 1;