Create database Music;

use music;

show tables;

1.who is the senior most empoloyee based on jobtitle?

SELECT

\*

FROM

employee

ORDER BY

levels DESC

LIMIT 1;

2. Which countries have more invoices?

SELECT

billing\_country,

COUNT(\*) AS Number\_of\_invoices

FROM

invoice

GROUP BY

billing\_country

ORDER BY

Number\_of\_invoices DESC;

3.What are the top 3 values of total invoice?

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

SELECT

billing\_city,

SUM(total) AS Total\_invoice

FROM

invoice

GROUP BY

billing\_city

ORDER BY

SUM(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.

SELECT

CONCAT(first\_name, " ", last\_name) AS Name,

SUM(total) AS Total\_money\_spent

FROM

customer c

JOIN

invoice i

ON

c.customer\_id = i.customer\_id

GROUP BY

Name

ORDER BY

Total\_money\_spent 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

SELECT DISTINCT

email,

CONCAT(first\_name, " ", last\_name) AS Name

FROM

customer c

JOIN

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

JOIN

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

WHERE

track\_id IN (

SELECT

t.track\_id

FROM

track t

INNER JOIN

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

WHERE

g.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

SELECT

artist.artist\_id,

artist.name,

COUNT(artist.artist\_id) AS NoOfSongs

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,

artist.name

ORDER BY

NoOfSongs 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.

SELECT

name,

milliseconds

FROM

track

WHERE

milliseconds > (

SELECT

AVG(milliseconds) AS avglength

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

WITH CTE AS (

SELECT

c.customer\_id,

c.first\_name,

c.last\_name,

ar.name,

ROUND(SUM(il.unit\_price \* il.quantity), 2) AS amount\_spent

FROM

track t

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

JOIN

album a ON a.album\_id = t.album\_id

JOIN

artist ar ON ar.artist\_id = a.artist\_id

GROUP BY

c.customer\_id,

c.first\_name,

c.last\_name,

ar.name

)

SELECT

cte.customer\_id,

cte.first\_name,

cte.last\_name,

cte.name,

cte.amount\_spent

FROM

CTE

ORDER BY

cte.amount\_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.

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

customer.country,

genre.name,

genre.genre\_id

ORDER BY

customer.country ASC,

purchases 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

WITH CTE AS (

SELECT

c.first\_name,

c.last\_name,

c.country,

ROUND(SUM(il.unit\_price \* il.quantity), 2) AS totalSpent,

ROW\_NUMBER() OVER (PARTITION BY c.country ORDER BY ROUND(SUM(il.unit\_price \* il.quantity), 2) DESC) AS rnk

FROM

customer c

JOIN

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

JOIN

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

GROUP BY

c.first\_name,

c.last\_name,

c.country

)

SELECT

\*

FROM

CTE

WHERE

rnk = 1;