**Music Store Database - Case Study**

Problem Statements:

1. who is the most employee based on job title.
2. which country has the most invoices.
3. who are the top three values of total invoices.
4. Which city has the best customers? We would like to throw a promotional music festival in the city where we made the most money. write a query that returns one city that has the highest sum of invoice totals. return both city name & sum of all invoice totals..
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 spends the most money.
6. write to return the email, first name, last name and genre of all rock music listeners. return your list ordered alph by email starting with a.
7. let's invite the artist who have written the most rock music in our dataset. write a queary the return the artist name and total track count of the top 10 rock bands.
8. return all the track names that have a song length longer than the average length return the name and milliseconds for each track order by the song length with longest songs listed first.
9. find how much amount is spent by each customer on the artist? write a query to return customer name, artist name and total spent.
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 purchase.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.
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 spend. for countries where the top amount spent is shared, provide all customers who spend this amount.

select \* from album

select \* from artist

select \* from customer

select \* from employee

select \* from genre

select \* from invoice

select \* from invoice\_line

select \* from media\_type

select \* from playlist

select \* from playlist\_track

select \* from track

--1. who is the most employee based on job title.

SELECT employee\_id as empid, first\_name, last\_name, title

FROM employee

ORDER BY levels DESC

LIMIT 1;

--2. which country have most invoices.

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

FROM invoice

GROUP BY billing\_country

ORDER BY billing\_country DESC

LIMIT 1;

--3. who are the top three values of total inoices.

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 where we made the most money. write a query the returns one city that has the highest sum of invoice totals. return both city name & sum of all invoice totals.

SELECT billing\_city as city, SUM(total) as total\_invoice

FROM invoice

GROUP BY billing\_city

ORDER BY SUM(total) DESC

--5. Who is the best customer? the customer who has spent the most money will be declared thr best customer. write a query that returns the person who spends the most money.

SELECT c.first\_name, c.last\_name, SUM(i.total) as spend\_most\_money

FROM customer c

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

GROUP BY c.customer\_id

ORDER BY spend\_most\_money DESC

limit 1

--6.write to return the email, first name, last name and genre of all rock music listeners. return your list ordered alph 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.invoice\_id

WHERE track\_id IN(

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 artist who has written the most rock music in our dataset. write a query to return the artist name and total track count of the top 10 rock bands.

SELECT ats.artist\_id, ats.name, COUNT(ats.artist\_id) AS number\_of\_songs

FROM track t

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

JOIN artist ats ON ats.artist\_id = alb.artist\_id

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

WHERE gnr.name LIKE 'Rock'

GROUP BY ats.artist\_id

ORDER BY number\_of\_songs DESC

LIMIT 10

--8. return all the track names that have a song length longer than the average length return the name and milliseconds for each track order by the song length with longest songs listed first.

SELECT name, milliseconds

FROM track

WHERE milliseconds > ( SELECT AVG(milliseconds) AS avg\_track\_length

FROM track)

ORDER BY milliseconds DESC

--9. find how much amount is spent by each customer on the artist? 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 amount

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

)

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

--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 purchase.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 populer\_genre as (

SELECT COUNT(invoice\_line.quantity) AS purchase, 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 populer\_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 spend. for countries where the top amount spent is shared, provide all customers who spend 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