**SQL PROJECT- MUSIC STORE DATA ANALYSIS**

**Question Set 1 - Easy**

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

SELECT TOP 1 \*

FROM employee

ORDER BY levels DESC

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 the top 3 values of total invoice?

SELECT TOP 3 total

FROM invoice

ORDER BY total desc

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 TOP 1

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, customer.first\_name, customer.last\_name

ORDER BY total DESC

**Question Set 2 - MODERATE**

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

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

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 top 10

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 = 'Rock'

GROUP BY artist.artist\_id, artist.name

ORDER BY number\_of\_songs DESC

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 > 393599

ORDER BY milliseconds DESC

**Question Set 3 - HARD**

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 artist.artist\_id,artist.name

ORDER BY total\_sales DESC

OFFSET 0 ROWS FETCH NEXT 1 ROW ONLY)

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 c.customer\_id, c.first\_name, c.last\_name, bsa.artist\_name

ORDER BY amount\_spent 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 AS 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)

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,

customer.first\_name,

customer.last\_name,

SUM(invoice.total) AS total\_spending,

ROW\_NUMBER() OVER (PARTITION BY invoice.billing\_country ORDER BY SUM(invoice.total) DESC) AS RowNo

FROM invoice

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

GROUPBYcustomer.customer\_id, customer.first\_name,customer.last\_name,invoice.billing\_country)

SELECT \* FROM Customer\_with\_country

WHERE RowNo = 1;