**SQL MUSIC ANALYSIS PROJECT**

SELECT TOP (1000) [employee\_id]

,[last\_name]

,[first\_name]

,[title]

,[reports\_to]

,[levels]

,[birthdate]

,[hire\_date]

,[address]

,[city]

,[state]

,[country]

,[postal\_code]

,[phone]

,[fax]

,[email]

FROM [MUSIC].[dbo].[employee]

select \* from employee

order by levels desc

--Q.1 - WHO IS THE SEMIUOR MOST EMPLOYEE BASED ON JOB TITLE?

SELECT TOP 1 \*

FROM employee

ORDER BY levels DESC;

--Q.2 - WHICH COUNTRIES HAVE THE MOST INVOICE?

SELECT \* FROM invoice

SELECT COUNT(\*) AS C , billing\_country from invoice

GROUP BY billing\_country

ORDER BY C desc

--Q.3 - WHAT ARE TOP 3 VALUES OF TOTAL INVOICE?

SELECT top 3 total FROM invoice

ORDER BY total desc

--Q.4 - WHICH CITY HAS THE BEST CUSTOMERS?WE WOULD LIKE T OTHROW A PROMOTIONAL MUSIC FESTIVAL IN 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 AND SUM OF ALL INVOICE TOTALS

SELECT \* FROM invoice

SELECT SUM(total) as invoice\_table, billing\_city from invoice

GROUP BY billing\_city

ORDER BY invoice\_table desc

--Q.5 - WHO IS THE BEST CUSTOMER? THE CUSTOMER WHO SPENT THE MOST MONEY WILL BE DECLARED AS THE BEST CUSTOMER.

SELECT \* FROM customer

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

--MODERATE QUESTIONS--

--Q.1 - WRITE QUERY TO RETURN THE EMAIL, FIRST NAME, LAST NAME AND 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;

--Q.2 - LET'S INVITE THE ARTISTS WHO HAVE WRITTEN THE MOST ROCK MUSIC IN OUR DATASET.

-- WRITE A QUERY THAT RETURN THE ARTISTNAME 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 like 'Rock'

group by artist.artist\_id, artist.name

order by number\_of\_songs desc

--Q.3 - RETURN ALL TRACK NAMES THAT HAVE A SONG LENGTH LONGER THAN THE AVERAGE SONG LENGTH.

-- RETURN THE NAME AN 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

--ADVANCE--

--Q.1 - FIND HOW MUCH AMOUNT SPENT EACH CUSTOMER ON ARTISTS?

-- WRITE A QUERY T ORETURN CUTOMER NAME, ARTIST NAME AND TOTAL SPENT

WITH best\_selling\_artist as

(select top 1 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 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 c.customer\_id,c.first\_name,c.last\_name,bsa.artist\_name

order by 5 desc

--Q.2 - we want to find out the most popular music genre for each country. we ddetermine the most popular genre as the genre with the highest amount

-- of purchases along with the top genre for countires where the max no of purchases in hsared return all genres.

with popular\_genre as(

select top 1000 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 2 asc , 1 desc

)

select \* from popular\_genre where RowNo <=1

--Q.3 - WRITE 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 top 1000 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 customer.customer\_id,first\_name,last\_name,billing\_country

order by 4 asc, 5 desc

)

select \* from customer\_with\_country where RowNo <= 1