**Set 1 - Easy**

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

select top 1 last\_name,first\_name, title

from employee

order by birthdate desc ;

A close up of a name

Description automatically generated

Q2: Which countries have the most Invoices?

select top 5 billing\_country as Country, COUNT(billing\_country) as Number\_of\_Invoice

from invoice

group by billing\_country

order by Number\_of\_Invoice desc;

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Q3: What are top 3 values of total invoice?

select top 3 total

from invoice

order by total desc;

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Q4: Write a SQL query to find the city with the highest total invoice amount. Return the city name and the sum of all invoice totals for that city.

select top 1 billing\_city City,sum(total) as Total\_Money

from invoice

group by billing\_city

order by Total\_Money desc;

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Question 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 top 1 c.customer\_id,c.first\_name,c.last\_name, SUM(i.total) as Total\_Money

from customer c

join invoice i on c.customer\_id= i.customer\_id

group by c.customer\_id,c.first\_name,c.last\_name

order by Total\_Money desc;



**Set 2 - Moderate**

Q1: 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 first\_name,last\_name,email,g.name as Genre

from customer c

join invoice i 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 genre g on g.genre\_id=t.genre\_id

where g.name='Rock'

order by email;

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Q2: 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.name as Artist, count(a.album\_id) Track\_Count

from artist

join album a on artist.artist\_id=a.album\_id

join track t on a.album\_id=t.album\_id

where t.genre\_id = (select genre\_id from genre where name='Rock')

group by artist.name

order by Track\_Count desc;

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Q3: Write a SQL query to return all track names with a length longer than the average song length. Include the track name and duration in milliseconds, and order the results by duration, with the longest tracks listed first.  
  
select name Track\_Name, milliseconds Track\_length

from track

where milliseconds > (select AVG(milliseconds) from track)

order by Track\_length desc ;

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Description automatically generated**

**Set 3 - Advance**

Q1: Determine the total amount spent by each customer on the bestselling artist. Write a SQL query to return the customer’s name, the bestselling artist’s name, and the total amount spent by each customer on this artist.

with best\_selling\_artist as

(

select top 1 a.artist\_id

from album a

join track t on t.album\_id = a.album\_id

join invoice\_line il on il.track\_id = t.track\_id

group by a.artist\_id

order by SUM(il.unit\_price\*il.quantity) desc

)

select

c.first\_name,c.last\_name, at.name Artist\_Name, SUM(il.unit\_price\*il.quantity) as Revenue

from customer c

join invoice i on i.customer\_id = c.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 a on a.album\_id = t.album\_id

join artist at on at.artist\_id = a.artist\_id

join best\_selling\_artist bsa on bsa.artist\_id = at.artist\_id

group by at.name,c.first\_name,c.last\_name

order by revenue desc;

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Q2: Find the most popular music genre for each country based on the highest number of purchases. Write a SQL query that returns each country along with its top genre.

with most\_popular\_genre as

(

select count(il.quantity) Quantity, i.billing\_country as Country , g.name as Genre,

ROW\_NUMBER()

over( Partition by i.billing\_country

order by count(il.quantity) desc

) as Row\_No

from invoice\_line il

join invoice i on i.invoice\_id = il.invoice\_id

join track t on t.track\_id = il.track\_id

join genre g on g.genre\_id = t.genre\_id

group by il.quantity,i.billing\_country,g.name

)

select Quantity,Country,Genre

from most\_popular\_genre

where Row\_No = 1

order by Country

;

A screenshot of a computer

Description automatically generated

Q3: Write a SQL query to determine the top-spending customer for each country. The query should return the country, the top customer, and the amount they spent.

with Top\_Customer\_For\_Country as

(

select sum(i.total) as Money\_Spent, c.country Country, c.customer\_id,c.first\_name First\_Name,c.last\_name Last\_Name,

ROW\_NUMBER ()

over (

partition by c.country

order by sum(i.total) desc

) as Row\_No

from customer c

join invoice i on i.customer\_id = c.customer\_id

group by

c.country,c.customer\_id,c.first\_name,c.last\_name

)

select Money\_Spent,Country, First\_Name, Last\_Name

from Top\_Customer\_For\_Country

where Row\_No =1;

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