

SQL PROJECT- MUSIC STORE DATA ANALYSIS

Question Set 1 - Easy

1. Who is the senior most employee based on job title?

Ans . select * from employee
order by hire_date asc limit 1;

2. Which countries have the most Invoices?

select max(billing_country) from invoice;

3. What are 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 sum(total) as invoice_num , billing_city
FROM invoice
GROUP BY billing_city
order by invoice_num 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
customer.first_name,
customer.last_name,
SUM(invoice.total) AS total
FROM
customer
INNER JOIN
invoice ON customer.customer_id = invoice.customer_id
GROUP BY
customer.first_name,
customer.last_name
ORDER BY

```
total DESC  
LIMIT 1;
```

Question Set 2 – Moderate

1. 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 customer.first_name,customer.last_name,customer.email , track.genre_id  
from customer  
inner join track on customer.customer_id = track.track_id  
order by email asc;
```

2. 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.name AS band_name, COUNT(track.name) AS num_of_songs  
FROM track  
JOIN album ON album.album_id = track.album_id  
JOIN artist ON album.artist_id = artist.artist_id  
JOIN genre ON genre.genre_id = track.genre_id  
WHERE genre.name = 'Rock'  
GROUP BY artist.name  
ORDER BY num_of_songs DESC  
LIMIT 10;
```

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 LENGTH(name)> (SELECT avg(LENGTH(name)) FROM track) limit 10;

Question Set 3 – Advance

1. Find how much amount spent by each customer on artists? Write a query to return customer name, artist name and total spent

with bsa as(

```
select      artist.artist_id,      artist.name      as      artist_name,
sum(invoice_line.unit_price*invoice_line.quantity) as total_spent
```

```
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 1,2
```

```
order by 3 desc
```

```
limit 1 )
```

```
select      customer_id, customer.customer_id,
```

```
customer.first_name,customer.last_name,bsa.artist_name,
```

```
Sum(invoice_line.unit_price*invoice_line.quantity) as amt
```

```
from invoice
```

```
join customer on customer.customer_id = invoice.customer_id
```

```
join invoice_line on invoice_line.invoice_id = invoice.invoice_id
```

```
join track on track.track_id = invoice_line.track_id
```

```
join album on album.album_id = track.album_id
```

```
join bsa on bsa.artist_id = album.artist_id
```

```
GROUP      BY      customer_id,
```

```
customer.first_name,customer.last_name,bsa.artist_name
```

```
order by amt desc ;
```

2. 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 2,3,4
    ORDER BY 2 ASC, 1 DESC
)
SELECT * FROM popular_genre WHERE RowNo <= 1
```

3. 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

```
select
customer.customer_id,customer.first_name,customer.last_name,invoice.billing_coun
try,sum(invoice.total) as total_spent
from invoice
join customer on customer.customer_id = invoice.customer_id
group by 1,2,3,4
order by 4 asc, 5 desc
```