

Music Store SQL Project

Questions & Answers

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

Sol:

```
select * from employee  
order by levels desc  
limit 1
```

Q2: Which countries have the most Invoices?

Sol:

```
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?

Sol:

```
select total from invoice  
order by total desc  
limit 3
```

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.

Sol:

```
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.

Sol:

```
select 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
order by total desc
limit 1
```

Q6: Write a 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.

Sol:

```
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.

Sol:

```
select 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
order by number_of_songs desc
limit 10
```

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.

Sol:

```
select name, milliseconds
from track
where milliseconds > (
select AVG(milliseconds) as avg_track_length
from track)
order by milliseconds desc
```

Q9: We want to identify the customer who made the largest one-time purchase in a single invoice. Return the customer's full name, email, invoice ID, and the total amount of that invoice.

Sol:

```
select
c.first_name,
c.last_name,
c.email,
i.invoice_id,
i.total as invoice_total
from customer as c
join invoice as i on c.customer_id = i.customer_id
order by i.total desc
limit 1;
```

Q10: Show the names and emails of customers from the USA.

Sol:

```
select first_name, last_name, email  
from customer  
where country = 'USA'
```

Q11:List all albums released by the artist "AC/DC".

Sol:

```
select al.title  
from album as al  
join artist as ar on al.artist_id = ar.artist_id  
where ar.name = 'AC/DC'
```

Q12:List all customers who have made at least one purchase. Return their first name, last name, and customer ID.

Sol:

```
select distinct c.customer_id, c.first_name, c.last_name  
from customer as c  
join invoice as i on c.customer_id = i.customer_id
```