



MUSIC STORE DATA ANALYSIS

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

```
-- Who is the senior most employee based on the job title?  
select first_name, last_name, title, levels from employee  
order by levels desc  
limit 1
```

100 %

Results Messages

	first_name	last_name	title	levels
1	Mohan	Madan	Senior General Manager	7.00

Mohan Madan is the senior most employee based on the job title

2. Which country has the most invoices?

```
-- Which country have the most invoices?  
select count(*) as count, billing_country  
from invoice  
group by billing_country  
order by count(*) desc
```

100 %

Results Messages

	count	billing_country
1	131	USA
2	76	Canada
3	61	Brazil
4	50	France

USA has the most invoices with count of 131

3. What are the top 3 values of total invoice?

```
-- What are the top 3 values of total invoice  
select top 3 total  
from invoice  
order by total desc
```

100 %

Results Messages

	total
1	23.7600002288818
2	19.7999992370605
3	19.7999992370605

4. Which city has the best customers? Write a query that returns the highest sum of invoice. Returns both the city and sum of all invoice totals.

```
--Which city has the best customers?
--Write a query that returns one city that has the highest sum of invoice.
--Returns both the city name and sum of all invoice totals
select billing_city,sum(total) as total_invoice
from invoice
group by billing_city
order by total_invoice desc
```

	billing_city	total_invoice
1	Prague	273.240000247955
2	Mountain View	169.290001153946
3	London	166.319998502731

Prague has the best customers with 273 total invoice

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

```
--Find how much amount spent by each customer on artist?
--Write a query to return customer 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 total_sales 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 AS 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
```

	customer_id	first_name	last_name	artist_name	amount_spent
1	46	Hugh	O'Reilly	Queen	27.7200002670288
2	38	Niklas	Schröder	Queen	18.8100001811981
3	3	François	Tremblay	Queen	17.8200001716614
4	34	João	Fernandes	Queen	16.8300001621246
5	41	Marc	Dubois	Queen	11.8800001144409

6. Return all the track names that have a song length longer than the average song length. Return the milliseconds for each track. Order by the song length with the longest songs listed first.

```
--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 > (
    SELECT AVG(milliseconds) AS avg_track_length FROM track)
ORDER BY milliseconds DESC
```

	name	milliseconds
1	Occupation / Precipice	5286953
2	Through a Looking Glass	5088838
3	Greetings from Earth, Pt. 1	2960293
4	The Man With Nine Lives	2956998
5	Battlestar Galactica, Pt. 2	2956081
6	Battlestar Galactica, Pt. 1	2952702
7	Murder On the Rising Star	2935894

7. Write a query that returns the artist name and total count of the top rock bands.

```
--Lets 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 rock bands
select top 10 artist.artist_id,artist.name, COUNT(artist.artist_id) as total_no_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 total_no_of_songs DESC
```

	artist_id	name	total_no_of_songs
1	22	Led Zeppelin	114
2	150	U2	112
3	58	Deep Purple	92
4	90	Iron Maiden	81
5	118	Pearl Jam	54
6	152	Van Halen	52
7	51	Queen	45
8	142	The Rolling Stones	41
9	76	Creedence Clearwater Revival	40
10	52	Kiss	35

8. Write query to return email, first name, last name and genre of all Rock Music listeners. Return your list ordered alphabetically by email starting with A

```
--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.invoice_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 asc
```

	email	first_name	last_name
1	aaronmitchell@yahoo.ca	Aaron	Mitchell
2	alero@uol.com.br	Alexandre	Rocha
3	astrid.gruber@apple.at	Astrid	Gruber

9. Who is the best customer. Write a query that returns the person who has spent the most money.

```
--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_invoice
from customer as c
join invoice as i
on c.customer_id=i.customer_id
group by c.customer_id, c.first_name, c.last_name
order by total_invoice desc
```

	customer_id	first_name	last_name	total_invoice
1	5	František	Wichterlová	144.539998054504

10. we want to find the most popular music genre for each country. Write a query that returns each country along with the top genre.

```
--We want to find out the most popular music Genre for each country
--Write a query that returns each country along with the top genre
--For countries where the max number of purchases is shared return all genre

WITH popular_genre AS (
    SELECT TOP 50 genre.genre_id, customer.country, genre.name,
    COUNT(invoice_line.quantity) AS purchases,
    ROW_NUMBER() OVER(PARTITION BY customer.country ORDER BY COUNT(invoice_line.quantity) DESC) AS Row_No
    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 genre.genre_id, customer.country, genre.name
    ORDER BY customer.country ASC, purchases DESC)

SELECT * FROM popular_genre WHERE Row_No <= 1
```

	genre_id	country	name	purchases	Row_No
1	4	Argentina	Alternative & Punk	17	1
2	1	Australia	Rock	34	1
3	1	Austria	Rock	40	1
4	1	Belgium	Rock	26	1
5	1	Brazil	Rock	205	1