

# Who is the senior most employee based on job title?



```
SELECT first_name, last_name, title  
FROM employee  
ORDER BY levels DESC  
LIMIT 1;
```

first_name	last_name	title
Andrew	Adams	General Manager

# Which countries have the most Invoices?



```
SELECT billing_country, count(*) AS Invoices
FROM invoice
GROUP BY billing_country
ORDER BY Invoices DESC;
```

billing_country	Invoices
USA	131
Canada	76
Brazil	61
France	50
Germany	41
Czech Republic	30
Portugal	29
United Kingdom	28
India	21

# What are the top 3 values of total invoice?



```
SELECT total AS Total_invoice  
FROM invoice  
ORDER BY total DESC  
LIMIT 3;
```

Total_invoice
23.76
19.8
19.8



# Which city has the best customers?



```
SELECT billing_city, ROUND(sum(total), 0) as totalinvoice  
FROM invoice  
GROUP BY billing_city  
ORDER BY total_invoice DESC  
LIMIT 1;
```

billing_city	total_invoice
Prague	273

# Who is the best customer?



```
SELECT customer.customer_id, first_name, last_name,  
ROUND(SUM(total),0) AS total_spending  
FROM customer  
JOIN invoice ON customer.customer_id = invoice.customer_id  
GROUP BY customer.customer_id,first_name,last_name  
ORDER BY total_spending DESC  
LIMIT 1;
```

customer_id	first_name	last_name	total_spending
5	František	Wichterlovský	145

# Which employee has the highest total sales based on their invoices?

```
SELECT e.first_name,e.last_name,ROUND(SUM(total),2)
AS total_sales
FROM employee e
JOIN customer c ON e.employee_id = c.support_rep_id
JOIN invoice i ON c.customer_id = i.customer_id
GROUP BY e.first_name,e.last_name
ORDER BY total_sales DESC
LIMIT 1;
```

first_name	last_name	total_sales
Jane	Peacock	1731.51



# What is the average invoice total for each country?



```
SELECT billing_country, ROUND(AVG(total), 2)
AS invoic_total
FROM invoice
GROUP BY billing_country
ORDER BY billing_country;
```

billing_country	invoice_total
Argentina	7.92
Australia	8.12
Austria	7.7
Belgium	8.63
Brazil	7.01
Canada	7.05
Chile	7.46
Czech Republic	9.11
Denmark	3.76

## Return the details of listeners list ordered by email alphabetically

```
SELECT c.customer_id, first_name, last_name, email, genre_name
FROM customer c
JOIN invoice i ON c.customer_id = i.customer_id
JOIN invoice_line l ON i.invoice_id = l.invoice_id
JOIN track t ON l.track_id = t.track_id
JOIN genre g ON t.genre_id = g.genre_id
WHERE genre_name LIKE "rock"
GROUP BY c.customer_id, first_name, last_name, email, genre_name
ORDER BY email ASC;
```

customer_id	first_name	last_name	email	genre_name
32	Aaron	Mitchell	aaronmitchell@yahoo.ca	Rock
11	Alexandre	Rocha	alero@uol.com.br	Rock
7	Astrid	Gruber	astrid.gruber@apple.at	Rock
4	Björn	Hansen	bjorn.hansen@yahoo.no	Rock
39	Camille	Bernard	camille.bernard@yahoo.fr	Rock
8	Daan	Peeters	daan_peeters@apple.be	Rock
56	Diego	Gutiérrez	diego.gutierrez@yahoo.ar	Rock
20	Dan	Miller	dmiller@comcast.com	Rock
40	Dominique	Lefebvre	dominiquelefebvre@gmail.com	Rock



**Retrieve the total track count and the artist name  
for the top 10 rock bands.**

```
SELECT artist.artist_id,artist_name,COUNT(DISTINCT track_id)
AS total_tracks
FROM artist
JOIN album ON artist.artist_id = album.artist_id
JOIN track ON album.album_id = track.album_id
JOIN genre ON track.genre_id = genre.genre_id
WHERE genre_name like "rock"
GROUP BY artist.artist_id,artist_name
ORDER BY total_tracks DESC
LIMIT 10;
```

artist_id	artist_name	total_tracks
1	AC/DC	18
3	Aerosmith	15
8	Audioslave	14
22	Led Zeppelin	14
4	Alanis Morissette	13
5	Alice In Chains	12
23	Frank Zappa & Captain Beefheart	9
2	Accept	4

Return all the track names that have a song length longer than the average song length



```
SELECT track_name,milliseconds AS length
FROM track
WHERE
milliseconds > (SELECT AVG(milliseconds) FROM track)
ORDER BY length DESC;
```

track_name	length
How Many More Times	711836
Advance Romance	677694
Sleeping Village	644571
You Shook Me(2)	619467
Talkin' 'Bout Women Obviously	589531
Stratus	582086
No More Tears	555075
The Alchemist	509413
Wheels Of Confusion / The Straightener	494524

**List all the artists who have tracks longer than the average track -- length in the dataset, along with the total count of such tracks for each -- artist**



```
WITH Longer_track AS
(SELECT artist_name, track_name, milliseconds, COUNT(track_id) AS length
FROM artist ar
JOIN album a ON ar.artist_id = a.artist_id
JOIN track t ON a.album_id = t.album_id
WHERE milliseconds > (SELECT AVG(milliseconds) FROM track)
GROUP BY artist_name, track_name, milliseconds)
SELECT artist_name, count(track_name) AS total_tracks
FROM Longer_track
GROUP BY artist_name
ORDER BY total_tracks DESC;
```

artist_name	total_tracks
Audioslave	19
Black Label Society	14
AC/DC	11
Aerosmith	11
Cidade Negra	10



# Find how much amount spent by each customer on artists?

```
WITH best_selling_artist AS (  
    SELECT artist.artist_id AS artist_id, artist.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 1,2  
    ORDER BY 3 DESC  
    LIMIT 1)  
SELECT c.customer_id, c.first_name, c.last_name, bsa.artist_name,  
ROUND(SUM(il.unit_price*il.quantity),2) 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 1,2,3,4  
ORDER BY 5 DESC;
```

customer_id	first_name	last_name	artist_name	amount_spent
54	Steve	Murray	AC/DC	17.82
53	Phil	Hughes	AC/DC	10.89
21	Kathy	Chase	AC/DC	10.89
49	Stanisław	Wójcik	AC/DC	9.9
1	Luís	Gonçalves	AC/DC	7.92
24	Frank	Ralston	AC/DC	7.92
31	Martha	Silk	AC/DC	3.96
16	Frank	Harris	AC/DC	2.97
42	Wyatt	Girard	AC/DC	2.97

# Write a query that returns each country along with the top Genre.

```
WITH Most_Popular_Genre AS (  
    SELECT g.genre_id, c.country, g.genre_name, SUM(il.quantity) AS Purchases,  
           ROW_NUMBER() OVER(PARTITION BY c.country ORDER BY SUM(il.quantity) DESC) AS Row_No  
    FROM genre g  
    JOIN track t ON g.genre_id = t.genre_id  
    JOIN invoice_line il ON t.track_id = il.track_id  
    JOIN invoice i ON il.invoice_id = i.invoice_id  
    JOIN customer c ON i.customer_id = c.customer_id  
    GROUP BY 1,2,3  
    ORDER BY 3 ASC, 4 DESC  
)  
SELECT genre_id, country, genre_name, Purchases  
FROM Most_Popular_Genre  
WHERE Row_No = 1  
ORDER BY country;
```

genre_id	country	genre_name	Purchases
1	Argentina	Rock	1
1	Australia	Rock	18
1	Austria	Rock	6
1	Belgium	Rock	5
1	Brazil	Rock	26
1	Canada	Rock	57
1	Chile	Rock	7
1	Czech Republic	Rock	14
1	Denmark	Rock	6

**Write a query that returns the country along with the top customer and how much they spent.**

```
WITH Customer_by_Country AS (  
  SELECT c.customer_id, c.first_name, c.last_name, c.country, ROUND(SUM(total), 2) AS total_spending  
    , ROW_NUMBER() OVER(PARTITION BY c.customer_id ORDER BY SUM(total)) AS Row_No  
  FROM customer c  
  JOIN invoice i ON c.customer_id = i.customer_id  
  GROUP BY 1, 2, 3, 4  
  ORDER BY 1 ASC, 5 DESC  
)  
SELECT * FROM Customer_by_Country  
WHERE Row_no <= 1  
ORDER BY total_spending DESC;
```

customer_id	first_name	last_name	country	total_spending	Row_No
5	František	Wichterlová	Czech Republic	144.54	1
6	Helena	Holáňová	Czech Republic	128.7	1
46	Hugh	O'Reilly	Ireland	114.84	1
58	Manoj	Pareek	India	111.87	1
1	Luís	Gonçalves	Brazil	108.9	1
13	Fernanda	Ramos	Brazil	106.92	1
34	João	Fernandes	Portugal	102.96	1
3	François	Tremblay	Canada	99.99	1



Identify the top-selling album in terms of total revenue generated across all invoices.

```
SELECT a.album_id,a.title AS album_name,ar.artist_name AS artist,
ROUND(SUM(il.unit_price * il.quantity), 2) AS total_revenue
FROM album a
JOIN track t ON a.album_id = t.album_id
JOIN invoice_line il ON t.track_id = il.track_id
JOIN artist ar ON a.artist_id = ar.artist_id
GROUP BY a.album_id , a.title , ar.artist_name
ORDER BY total_revenue DESC
LIMIT 1;
```

album_id	album_name	artist	total_revenue
5	Big Ones	Aerosmith	79.2