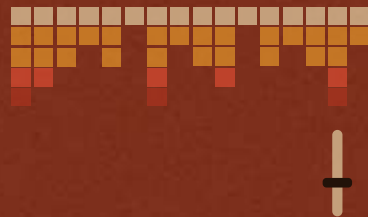# Music Store Analysis

Easy

Q1. Who is the senior most employee based on job title

```sql
select levels, title, concat(first_name,last_name) as employee_name
from employee
order by levels desc
limit 1;
```

levels	title	employee_name
L6	General Manager	AndrewAdams

Q2. Which countries have the most invoices

```sql
select billing_country, count(invoice_id) as total_invoice
from invoice
group by billing_country
order by total_invoice desc;
```

billing_country	total_invoice
USA	131
Canada	76
Brazil	61
France	50
Germany	41

```sql
select invoice_id, round(total) as total_invoices
from invoice
order by total desc
limit 3;
```

invoice_id	total_invoices
183	24
92	20
31	20

Q4. Which city has the best customers?
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

```sql
select billing_city as city_name, round(sum(total)) as invoice_total
from invoice
group by city_name
order by invoice_total desc
limit 1;
```

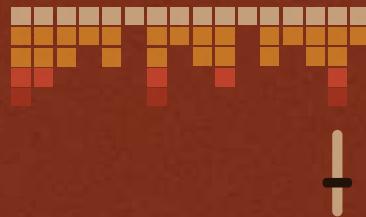| city_name	invoice_total
▶ Prague	273

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 most money.

```sql
select concat(c.first_name,c.last_name) as Customer_name, round(sum(total)) as money_spent
from customer as c
join invoice as i on i.customer_id= c.customer_id
group by Customer_name
order by money_spent
limit 1;
```

Customer_name	money_spent
MarkPhilips	30

Q1. 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.

```sql
select distinct c.email, c.first_name, c.last_name, g.name as genre_name
from customer c
join invoice i on c.customer_id=i.customer_id
join invoice_line il on i.invoice_id=il.invoice_id
join track t on il.track_id=t.track_id
join genre g on t.genre_id=g.genre_id
where g.name= "Rock"
order by c.email;
```

email	first_name	last_name	genre_name
aaronmitchell@yahoo.ca	Aaron	Mitchell	Rock
alero@uol.com.br	Alexandre	Rocha	Rock
astrid.gruber@apple.at	Astrid	Gruber	Rock
bjorn.hansen@yahoo.no	BjÃ¸rn	Hansen	Rock
camille.bernard@yahoo.fr	Camille	Bernard	Rock

Q2. Lets invite the artists who have written most rock music in our dataset.
Write a query that returns artist name and total track count of the top 10 rock bands.

```sql
select ar.name as artist_name, count(track_id) as total_track
from track t
join album2 a on t.album_id=a.album_id
join artist ar on a.artist_id=ar.artist_id
where genre_id= 1
group by artist_name
order by total_track desc
limit 10;
```

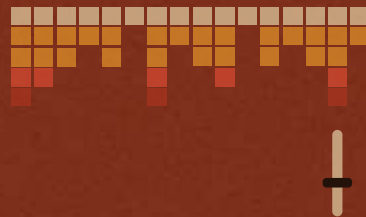| artist_name	total_track
AC/DC	18
Aerosmith	15
Audioslave	14
Led Zeppelin	14
Alanis Morissette	13

Q3. 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.

```sql
select name as track_name, milliseconds
from track
where milliseconds > (select avg(milliseconds) as avg from track)
order by milliseconds desc;
```

track_name	milliseconds
How Many More Times	711836
Advance Romance	677694
Sleeping Village	644571
You Shook Me(2)	619467
Talkin' 'Bout Women Obviously	589531

Advance

Q1. Find how much amount spend by each customer on artists
Write a query to return customer name, artist name and total spent.

```sql
select c.customer_id, concat(c.first_name,c.last_name) as customer_name,
ar.name as artist_name, sum(il.unit_price*il.quantity) as total_spent
from customer c
join invoice i on c.customer_id=i.customer_id
join invoice_line il on i.invoice_id=il.invoice_id
join track t on il.track_id=t.track_id
join album2 a on t.album_id=a.album_id
join artist ar on a.artist_id=ar.artist_id
group by 1,2,3
order by artist_name,total_spent desc;
```

customer_id	customer_name	artist_name	total_spent
▶ 54	SteveMurray	AC/DC	17.82
53	PhilHughes	AC/DC	10.89
21	KathyChase	AC/DC	10.89
49	StanisÅ‚awWÃ³jcik	AC/DC	9.9
1	LuÃsGonÃ§alves	AC/DC	7.920000000000001

10.89

**Q2. We want to find out most popular Music Genre for each country.
We determine the most popular genre as the genre with the highest amount of purchase.
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**

```sql
With a as(select i.billing_country,g.name as genre_name, count(il.quantity) as total_purchase,
rank()over(partition by i.billing_country order by count(il.quantity)desc) as rank_1
from invoice i
join invoice_line il on i.invoice_id=il.invoice_id
join track t on il.track_id=t.track_id
join genre g on g.genre_id=t.genre_id
group by 1,2
order by i.billing_country asc , count(il.quantity) desc)
select * from a
where rank_1 =1
order by total_purchase desc;
```

billing_country	genre_name	total_purchase	rank_1
▶ USA	Rock	70	1
Canada	Rock	57	1
United Kingdom	Rock	47	1
Germany	Rock	28	1
Brazil	Rock	26	1

Q3. Write a query that determines the customer that has spent on music for each country.
Write a query that returns a country along with the top customer and how much they spent.
For countries the top amount is shared, provide all customers who spent this amount

```sql
with a as (
select c.country, concat(c.first_name,c.last_name) as customer_name, round(sum(i.total)) as spent,
rank()over(partition by c.country order by round(sum(total))) as spent_rank
from customer c
join invoice i on c.customer_id=i.customer_id
group by 1,2
order by c.country asc, spent desc
)
select * from a
where spent_rank =1
order by spent desc;
```

	country	customer_name	spent	spent_rank
▶	Czech Republic	HelenaHolÃ½	129	1
	Ireland	HughO'Reilly	115	1
	Spain	EnriqueMuÃ±oz	98	1
	Chile	LuisRojas	97	1
	Portugal	MadalenaSampaio	82	1

THANK YOU