

MUSIC STORE ANALYSIS

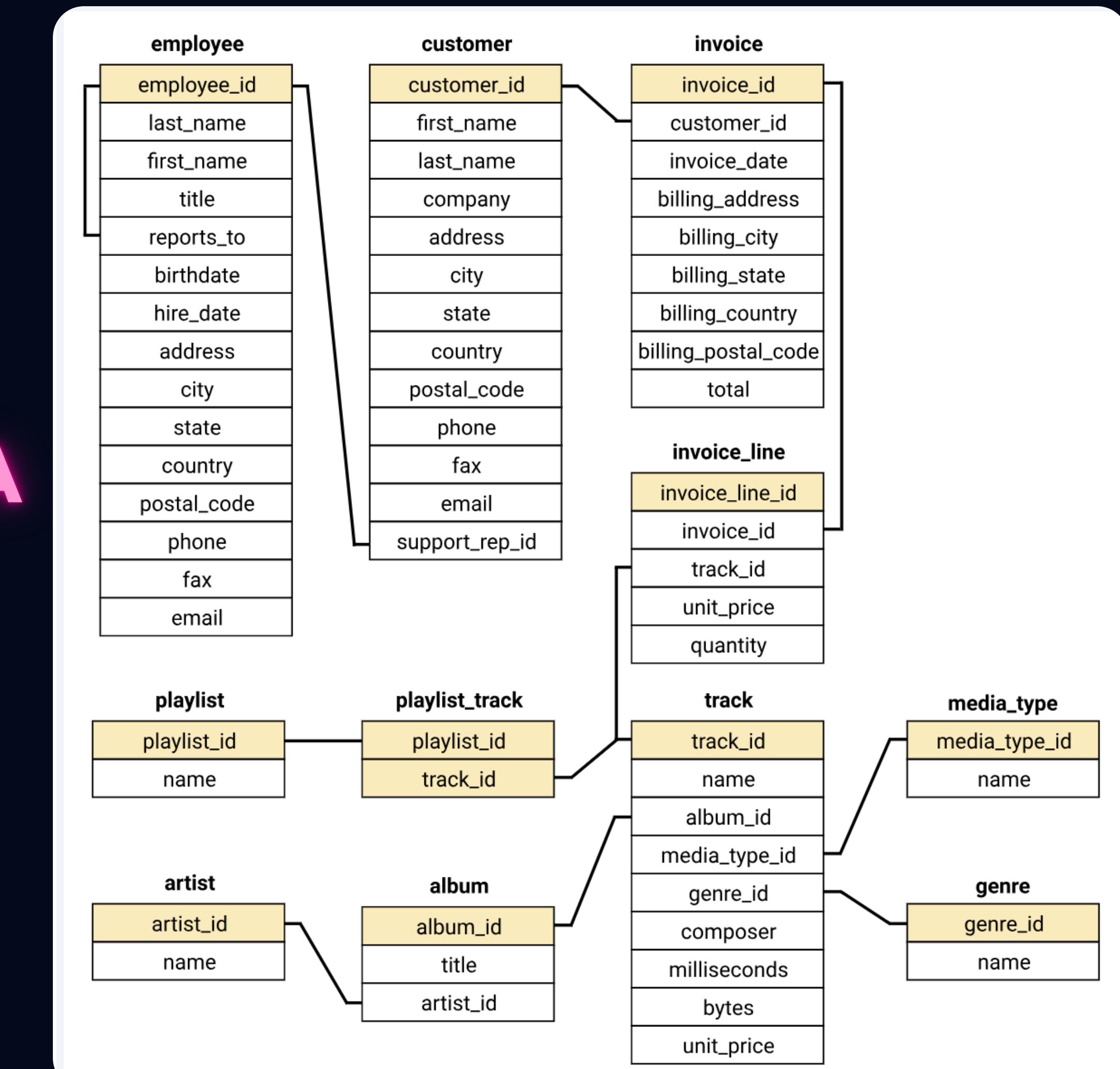
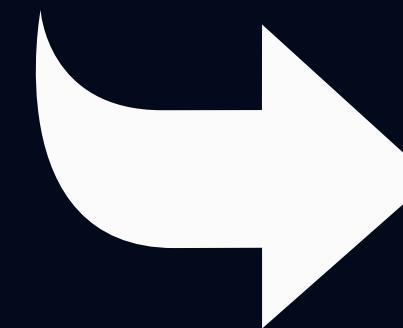
SQL PROJECT

- AKSHAY SHIRBHATE

PROJECT OBJECTIVE

- 
- 
- 1. ANALYZE SALES DATA TO REVEAL TRENDS AND PATTERNS IN THE MUSIC STORE'S REVENUE GENERATION.**
 - 2. IDENTIFY ACTIONABLE INSIGHTS FROM MUSIC SALES DATA TO INFORM STRATEGIC DECISIONS AND PROPEL BUSINESS ADVANCEMENT.**

DATABASE SCHEMA



DIVISION OF QUESTIONS



EASY

ORDER BY, LIMIT, COUNT,
GROUP BY, SUM, JOIN



MODERATE

JOIN,COUNT, AVG,
GROUP BY, ORDER BY,
LIMIT



ADVANCE

CTE, RECURSIVE CTE,
ROW_NUMBER, JOIN,
GROUP BY, ORDER BY,
SUM, LIMIT



EASY

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

```
2  SELECT EMPLOYEE_ID, CONCAT(FIRST_NAME, " ", LAST_NAME) as EMPLOYEE_NAME,  
3  TITLE, LEVELS FROM EMPLOYEE  
4  ORDER BY LEVELS DESC  
5  LIMIT 1
```

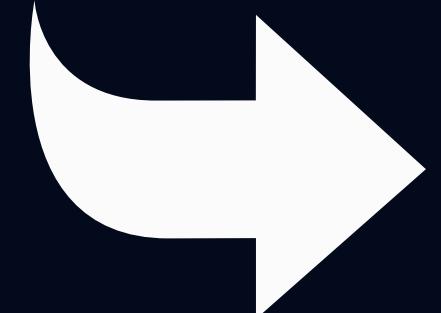
OUTPUT

	EMPLOYEE_ID	EMPLOYEE_NAME	TITLE	LEVELS
▶	9	Mohan Madan	Senior General Manager	L7

2. Which countries have the most Invoices?

```
8  SELECT BILLING_COUNTRY, COUNT(*) AS INVOICES FROM INVOICE  
9  GROUP BY 1  
10 ORDER BY INVOICES DESC
```

OUTPUT

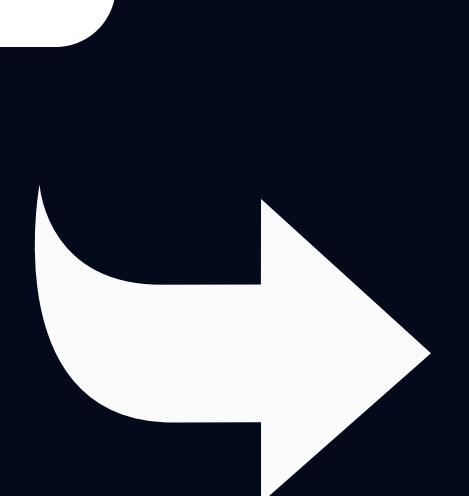


	BILLING_COUNTRY	INVOICES
▶	USA	131
	Canada	76
	Brazil	61
	France	50
	Germany	41
	Czech Republic	30
	Portugal	29
	United Kingdom	28
	India	21
	Ireland	13
	Chile	13
	Finland	11
	Spain	11
	Poland	10
	Denmark	10
	Australia	10

3. What are top 3 values of total invoice?

```
13   SELECT TOTAL FROM INVOICE  
14   ORDER BY TOTAL DESC  
15   LIMIT 3
```

OUTPUT

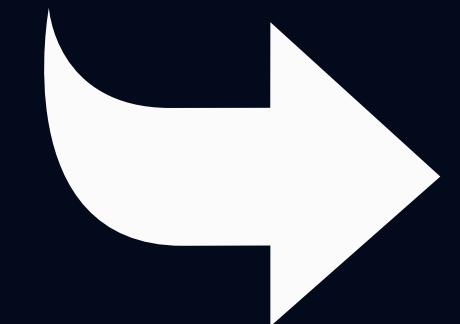


TOTAL
23.76
19.8
19.8

4. 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.

```
21 select billing_city, round(sum(total),2) as Invoice_totals from invoice  
22 group by 1  
23 order by Invoice_totals desc  
24 limit 1
```

OUTPUT

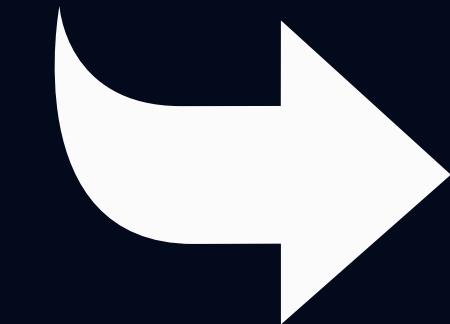


	billing_city	Invoice_totals
▶	Prague	273.24

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.

```
29  select c.customer_id, c.first_name, c.last_name,  
30    round(sum(i.total),2) as Total_spending  
31  from customer c  
32  join invoice i on c.customer_id = i.customer_id  
33  group by 1  
34  order by Total_spending desc  
35  limit 1
```

OUTPUT



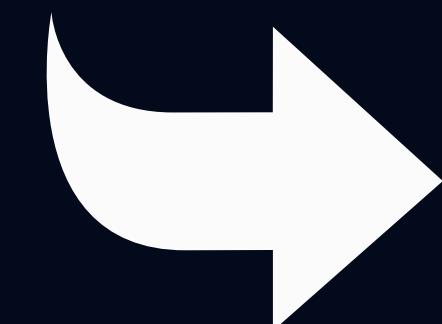
	customer_id	first_name	last_name	Total_spending
▶	5	František	Wichterlová	144.54

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.

```
39  select distinct(c.email), c.first_name, c.last_name from customer c  
40  join invoice i on c.customer_id = i.customer_id  
41  join invoice_line il on i.invoice_id = il.invoice_id  
42  join track t on il.track_id = t.track_id  
43  join genre g on t.genre_id = g.genre_id  
44  where g.name = "Rock"  
45  order by 1
```

OUTPUT

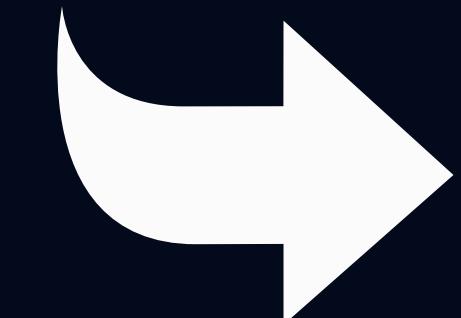


	email	first_name	last_name
▶	aaronmitchell@yahoo.ca	Aaron	Mitchell
	alero@uol.com.br	Alexandre	Rocha
	astrid.gruber@apple.at	Astrid	Gruber
	bjorn.hansen@yahoo.no	BjÃ¸rn	Hansen
	camille.bernard@yahoo.fr	Camille	Bernard
	daan_peeters@apple.be	Daan	Peeters
	diego.gutierrez@yahoo.ar	Diego	GutiÃ©rez
	dmiller@comcast.com	Dan	Miller

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.

```
50      select a.artist_id, a.name, count(a.artist_id) as Total_Track from Artist A
51      join album al on a.artist_id = al.artist_id
52      join track t on al.album_id = t.album_id
53      join genre g on t.genre_id = g.genre_id
54      where g.name = "Rock"
55      group by 1
56      order by Total_track desc
57      limit 5
```

OUTPUT

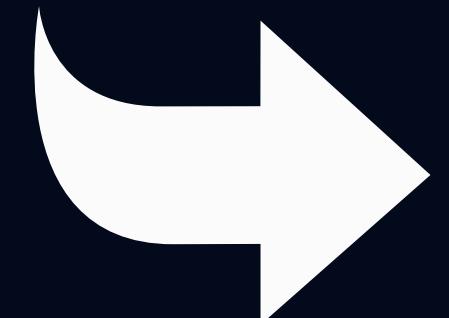


	artist_id	name	Total_Track
▶	1	AC/DC	18
	3	Aerosmith	15
	8	Audioslave	14
	4	Alanis Morissette	13
	5	Alice In Chains	12

3. 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.

```
64  Select track_name, milliseconds from track  
65  where milliseconds > (select avg(milliseconds) as Avg_Track_Length from track)  
66  order by milliseconds desc
```

OUTPUT



	track_name	milliseconds
▶	Orade's Odyssey	644571
	Can We Pretend (feat. Cash Cash) - Sigala Remix	589531
	Cosmic Carousel	582086
	Dreamweaver's Delight	555075
	Carry On - Nicky Romero Remix	509413
	Astral Adagio	494524
	Heaven (feat. Veronica)	494393
	Midnight Echoes	491885
	I Miss Myself - R3HAB Remix	482429
	Nebula Nocturne	456071
	Mad Love - Blinkie Remix	436636

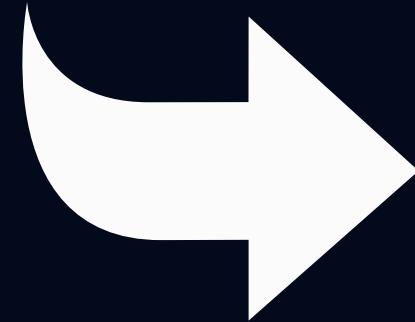
ADVANCE

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

```
With Best_Selling_artist as (
    select a.artist_id, a.name as artist_name, sum(il.unit_price*il.quantity) as Total_sales
    from artist a
    join album al on a.artist_id = al.artist_id
    join track t on al.album_id = t.album_id
    join invoice_line il on t.track_id = il.track_id
    group by 1,2
    order by 3 desc)

select c.customer_id, c.first_name, c.last_name, bsa.artist_name,
    round(sum(il.unit_price * il.quantity),2) 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 album al on t.album_id = al.album_id
join best_selling_artist bsa on al.artist_id = bsa.artist_id
group by 1,2,3,4
order by Total_spent desc
```

OUTPUT

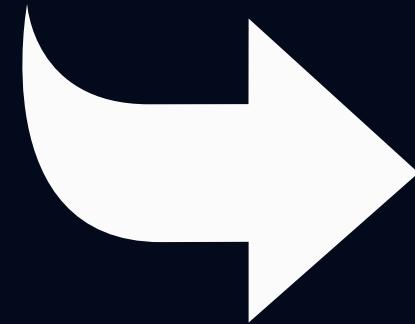


	customer_id	first_name	last_name	artist_name	Total_spent
▶	54	Steve	Murray	AC/DC	17.82
	15	Jennifer	Peterson	Aerosmith	14.85
	55	Mark	Taylor	Aerosmith	14.85
	2	Leonie	KÃ¶hler	Audioslave	13.86
	13	Fernanda	Ramos	Antônio Carlos Jobim	13.86
	30	Edward	Francis	Alanis Morissette	12.87
	34	João	Fernandes	Alanis Morissette	12.87
	52	Emma	Jones	Alanis Morissette	12.87
	25	Victor	Stevens	Alice In Chains	11.88
	21	Kathy	Chase	AC/DC	10.89
	49	Stanisław	Wojciech	Buddy Guy	10.89
	53	Phil	Hughes	AC/DC	10.89
	49	Stanisław	Wojciech	AC/DC	9.9
	1	Luís	Gonçalves	AC/DC	7.92
	3	François	Tremblay	Apocalyptica	7.92
	21	Kathy	Chase	Black Sabbath	7.92
	24	Frank	Ralston	AC/DC	7.92

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.

```
97  
98     with popular_genre as (select c.country, g.genre_id, g.name, count(il.quantity) as purchases,  
99         row_number() over (partition by c.country order by count(il.quantity) desc) as ranking  
100        from invoice_line il join invoice i on il.invoice_id = i.invoice_id  
101        join customer c on i.customer_id = c.customer_id  
102        join track t on il.track_id = t.track_id  
103        join genre g on t.genre_id = g.genre_id  
104        group by 1,2,3  
105        order by 1,4 desc )  
106            select * from popular_genre where ranking <=1
```

OUTPUT

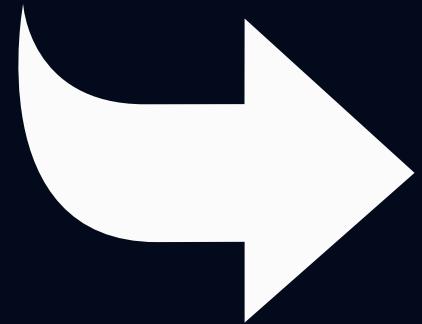


	country	genre_id	name	purchases	ranking
▶	Argentina	1	Rock	1	1
	Australia	1	Rock	18	1
	Austria	1	Rock	5	1
	Belgium	1	Rock	5	1
	Brazil	1	Rock	26	1
	Canada	1	Rock	55	1
	Chile	1	Rock	6	1

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.

```
112 with customer_spent as (
113     select c.customer_id, c.first_name, c.last_name, i.billing_country, round(sum(i.total),2) as total_spent,
114     row_number() over (partition by i.billing_country order by sum(i.total) desc) as ranking
115     from customer c join invoice i on c.customer_id = i.customer_id
116     group by 1,2,3,4
117     order by total_spent desc)
118     select * from customer_spent where ranking <=1
```

OUTPUT



	customer_id	first_name	last_name	billing_country	total_spent	rnking
▶	5	František	Wichterlová	Czech Republic	144.54	1
	46	Hugh	O'Reilly	Ireland	114.84	1
	58	Manoj	Pareek	India	111.87	1
	1	Luís	Gonçalves	Brazil	108.9	1
	34	Joaõ	Fernandes	Portugal	102.96	1
	3	François	Tremblay	Canada	99.99	1
	42	Wyatt	Girard	France	99.99	1



THANKS

- Akshay Shirbhate