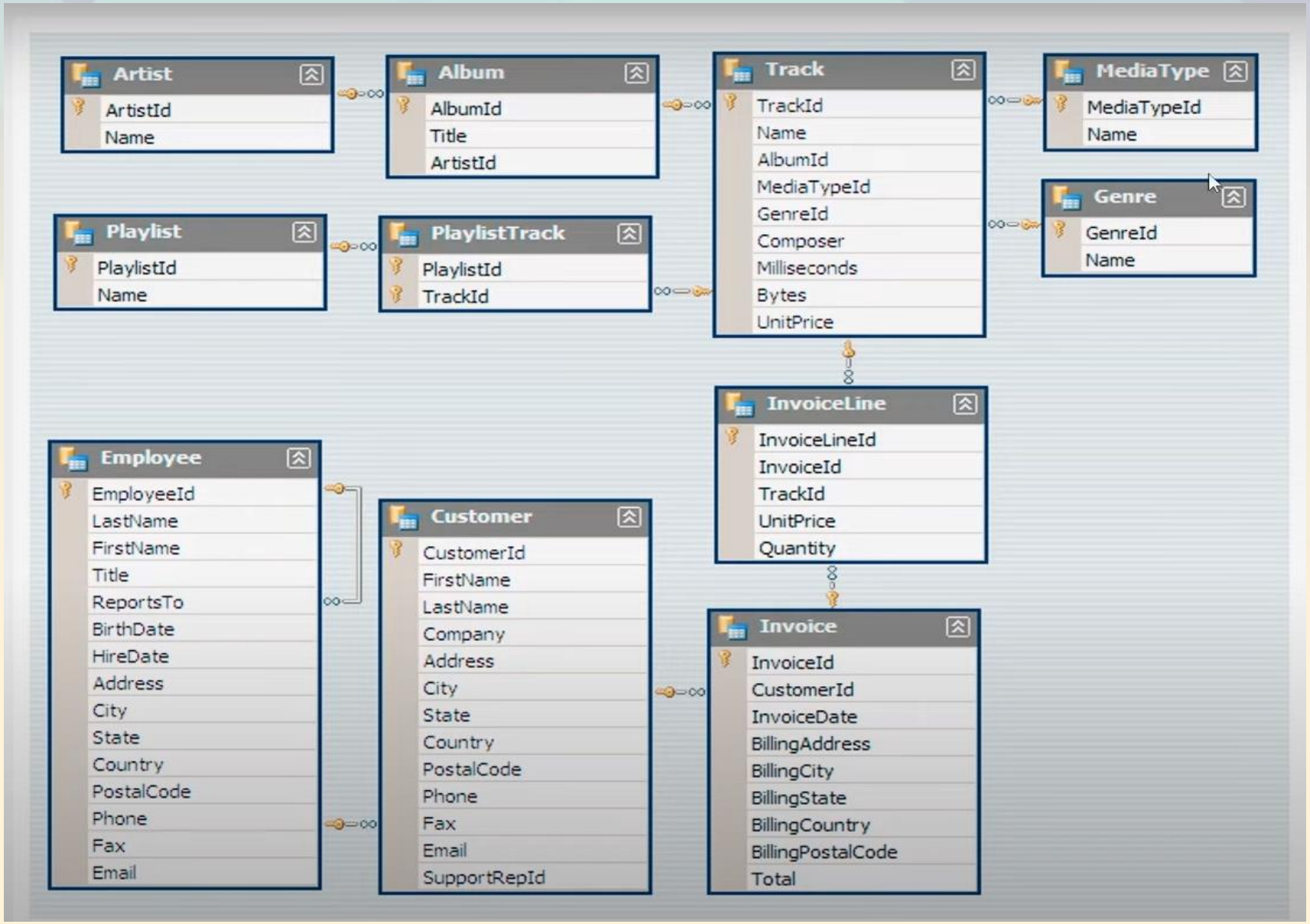
Project On
Music Store Data Analysis

By ANKIT PATIL

1) MUSIC PLAYLIST DATABASE SCHEMA

SCHEMA OF THE DATABASE -

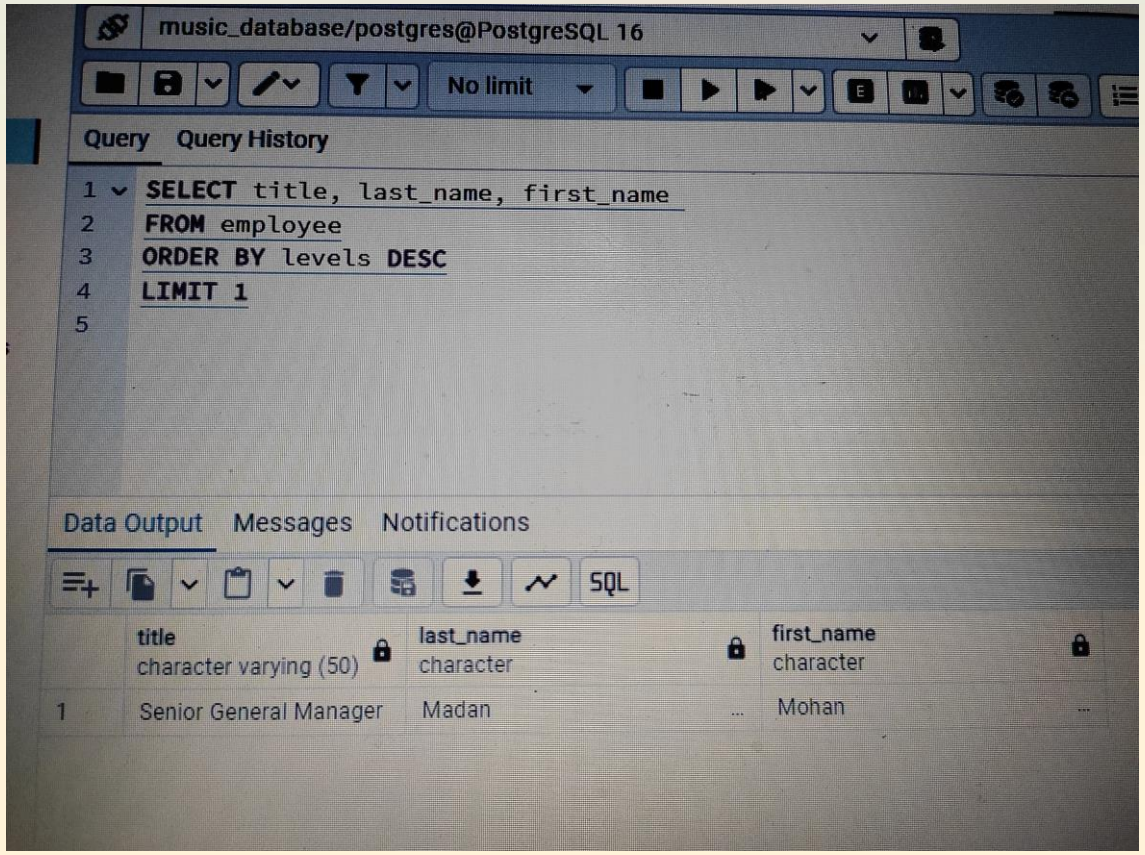


Here We Solve The Questions On Music Dataset Using SQL

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

SQL Query

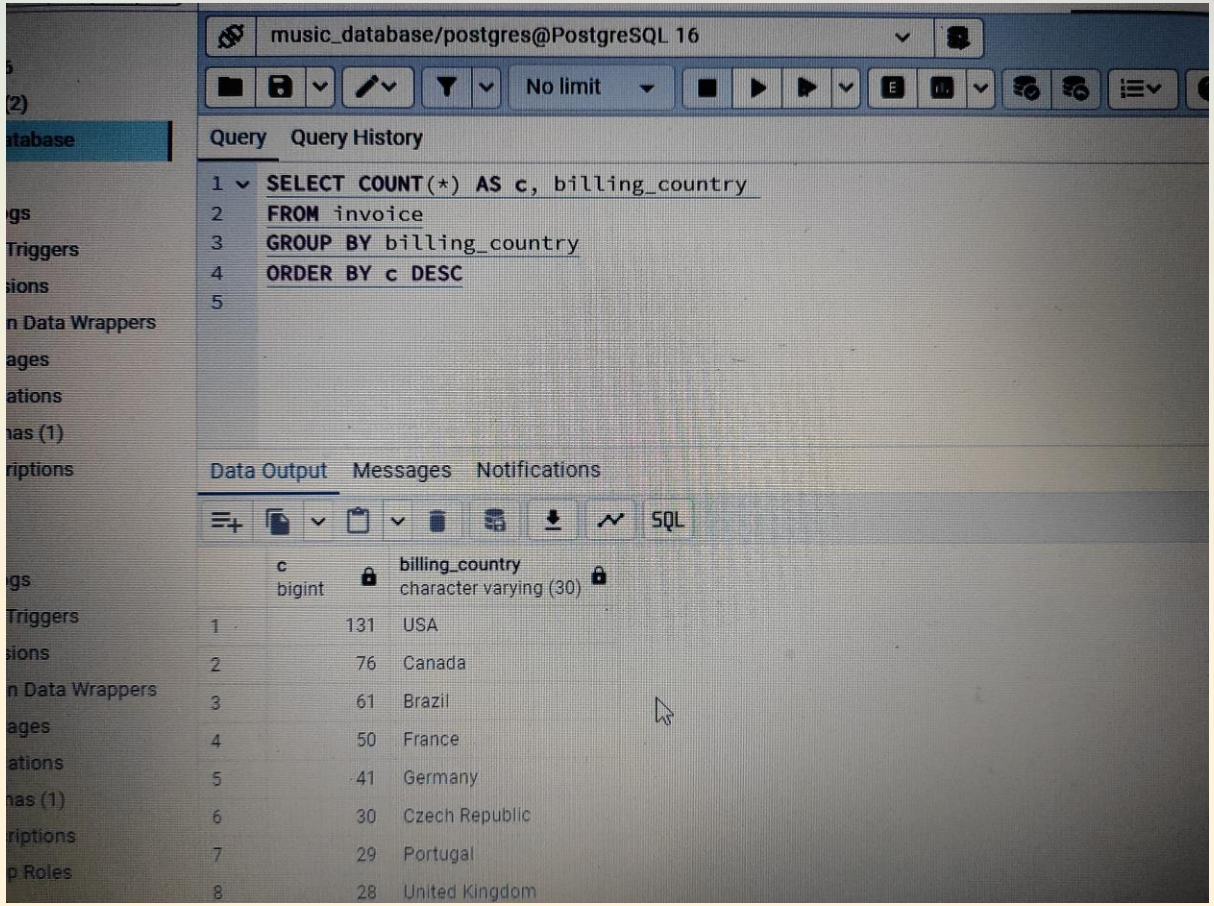
```
SELECT title, last_name, first_name
FROM employee
ORDER BY levels DESC
LIMIT 1
```



Q2: Which countries have the most Invoices?

SQL Query

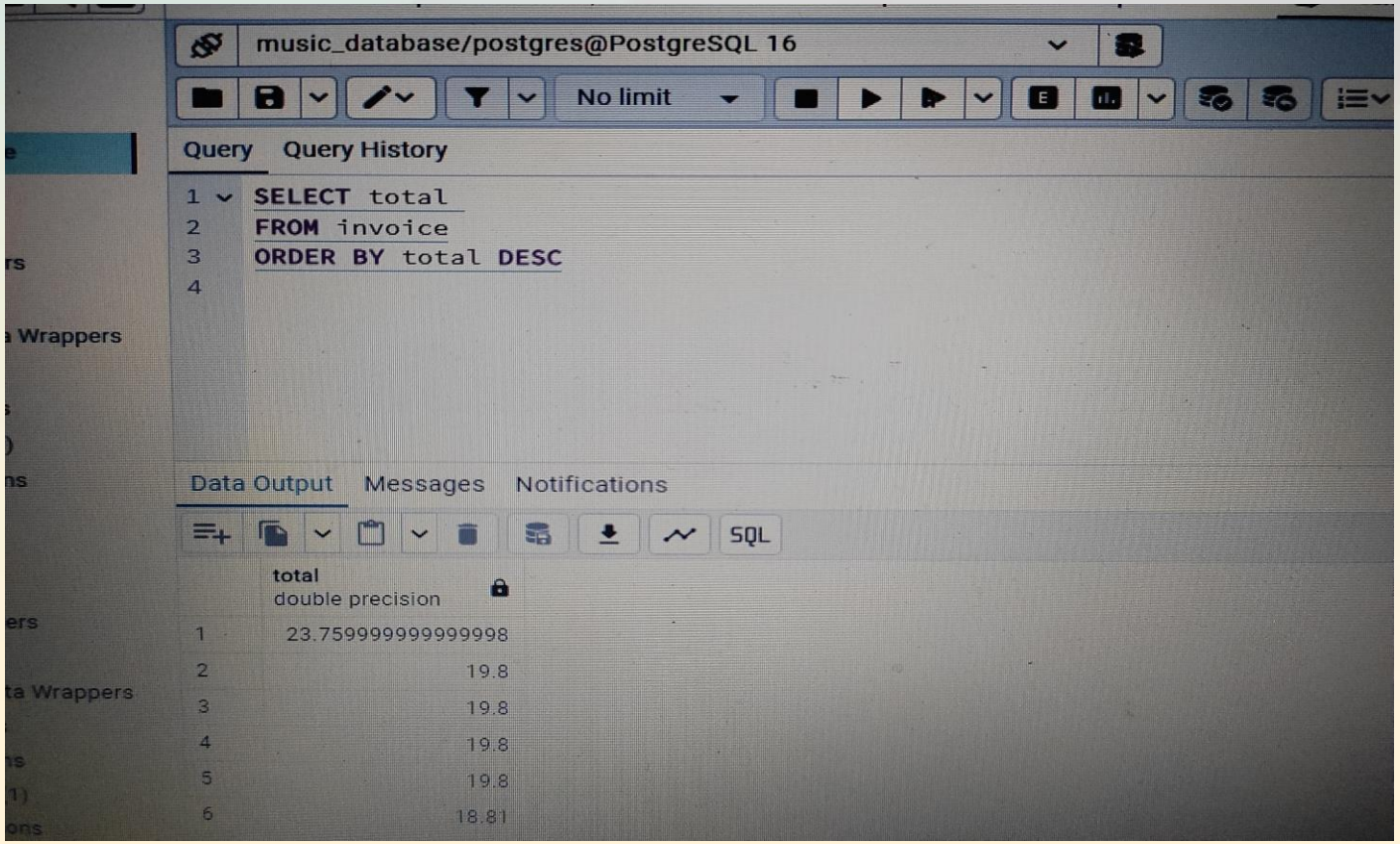
```
SELECT COUNT(*) AS c,  billing_country
FROM invoice
GROUP BY billing_country
ORDER BY c DESC
```



Q3: What are top 3 values of total invoice?

SQL Query

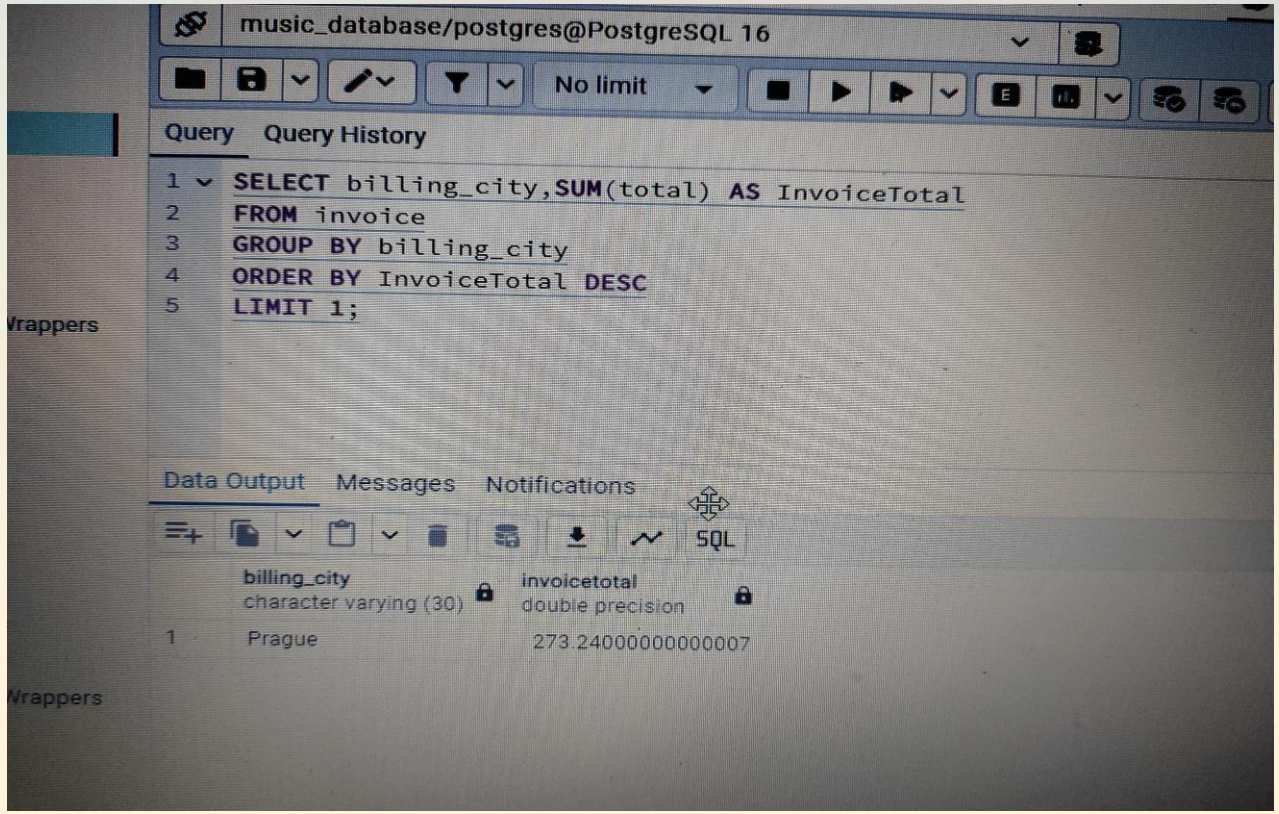
```
SELECT total
FROM invoice
ORDER BY total DESC
```



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

SQL Query

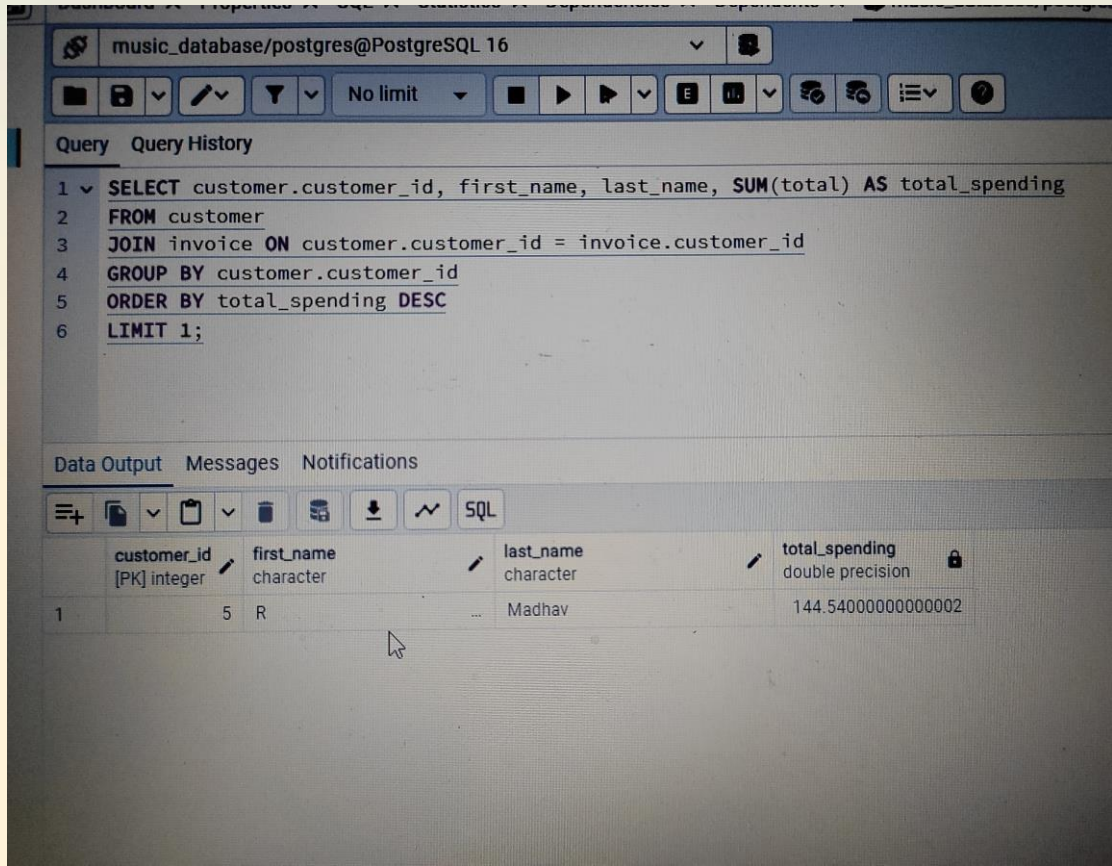
```
SELECT billing_city,SUM(total) AS InvoiceTotal
FROM invoice
GROUP BY billing_city
ORDER BY Invoice Total DES
CLIMIT 1;
```



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.

SQL Query

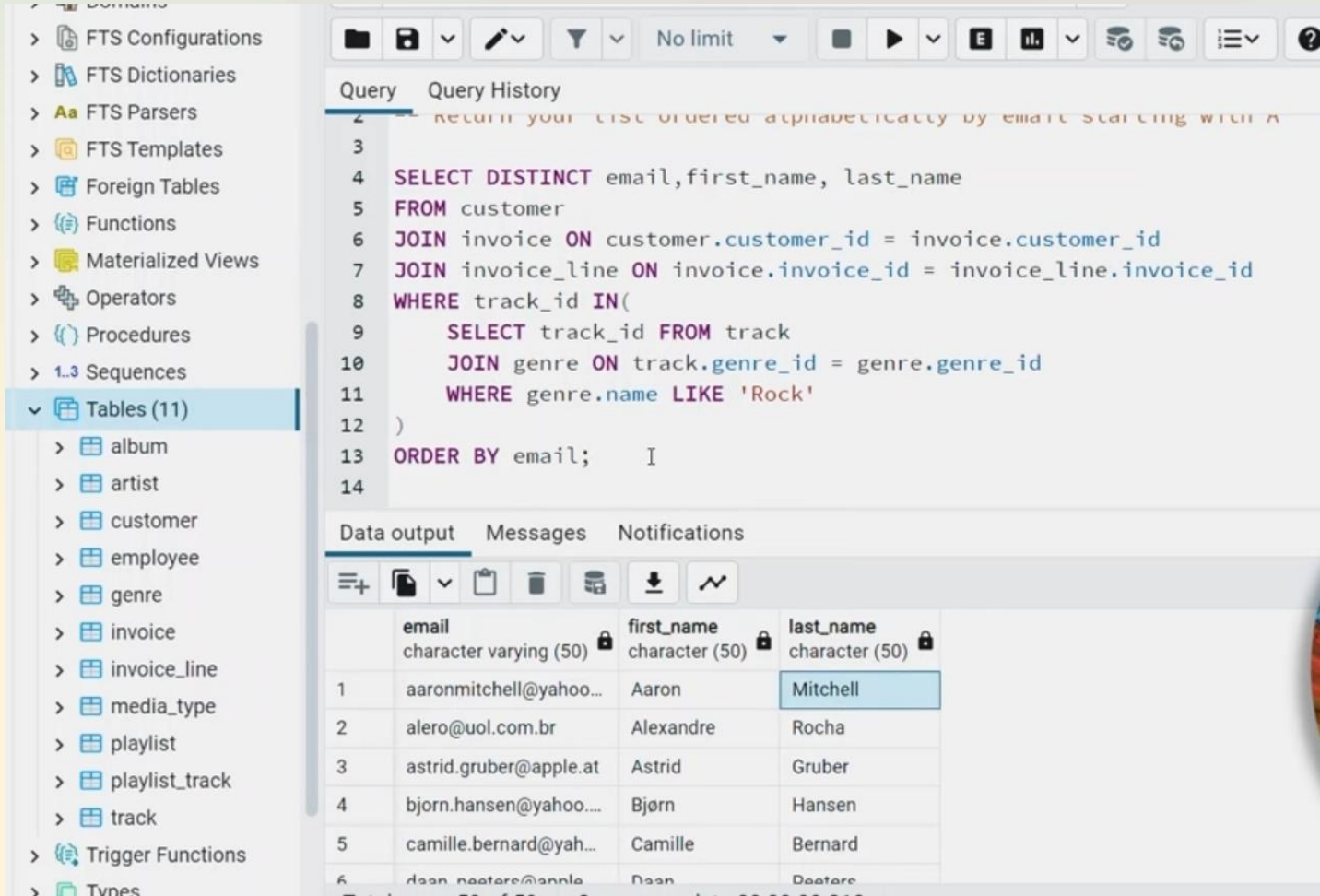
```
SELECT customer.customer_id, first_name,
last_name, SUM(total) AS total_spending
FROM customer
JOIN invoice ON customer.customer_id = invoice.customer_id
GROUP BY customer.customer_id
ORDER BY total_spending DESC
LIMIT 1;
```



Q6: 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.

SQL Query

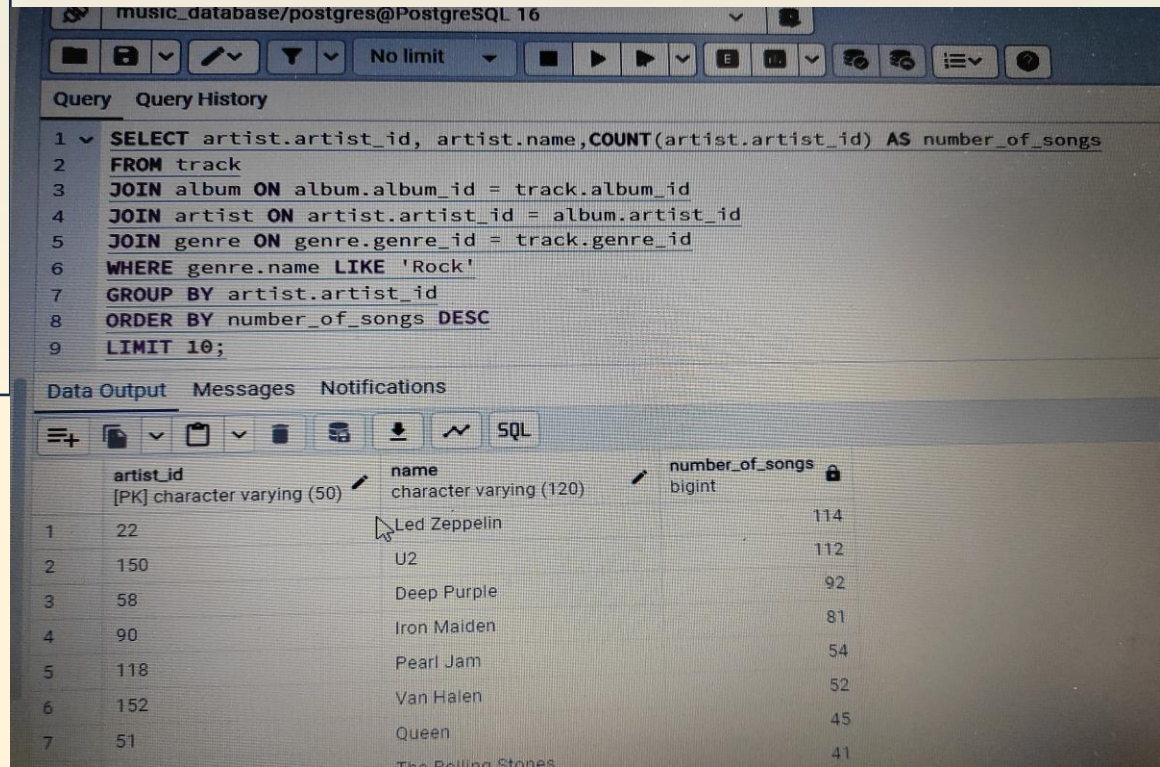
```
SELECT DISTINCT email,first_name,
last_name
FROM customer
JOIN invoice ON customer.customer_id
= invoice.customer_id
JOIN invoiceline ON invoice.invoice_id =
invoiceline.invoice_id
WHERE track_id IN(SELECT track_id
 FROM track
JOIN genre ON track.genre_id =
genre.genre_id
WHERE genre.name LIKE 'Rock')
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.

SQL Query

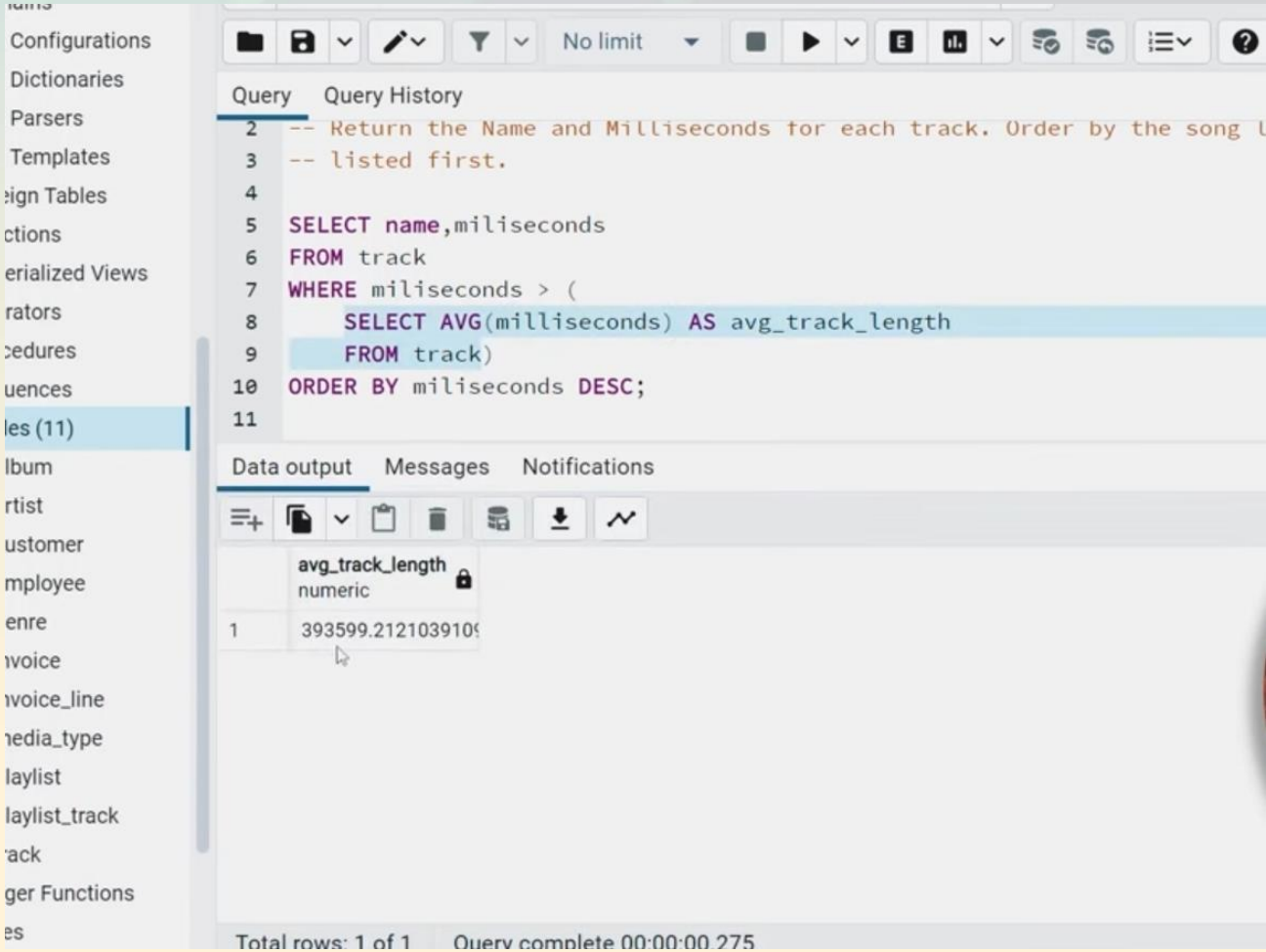
```
SELECT artist.artist_id, artist.name,COUNT(artist.artist_id) AS
number_of_songs
FROM track
JOIN album ON album.album_id = track.album_id
JOIN artist ON artist.artist_id = album.artist_id
JOIN genre ON genre.genre_id = track.genre_id
WHERE genre.name LIKE 'Rock’
GROUP BY artist.artist_id
ORDER BY 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.

SQL Query

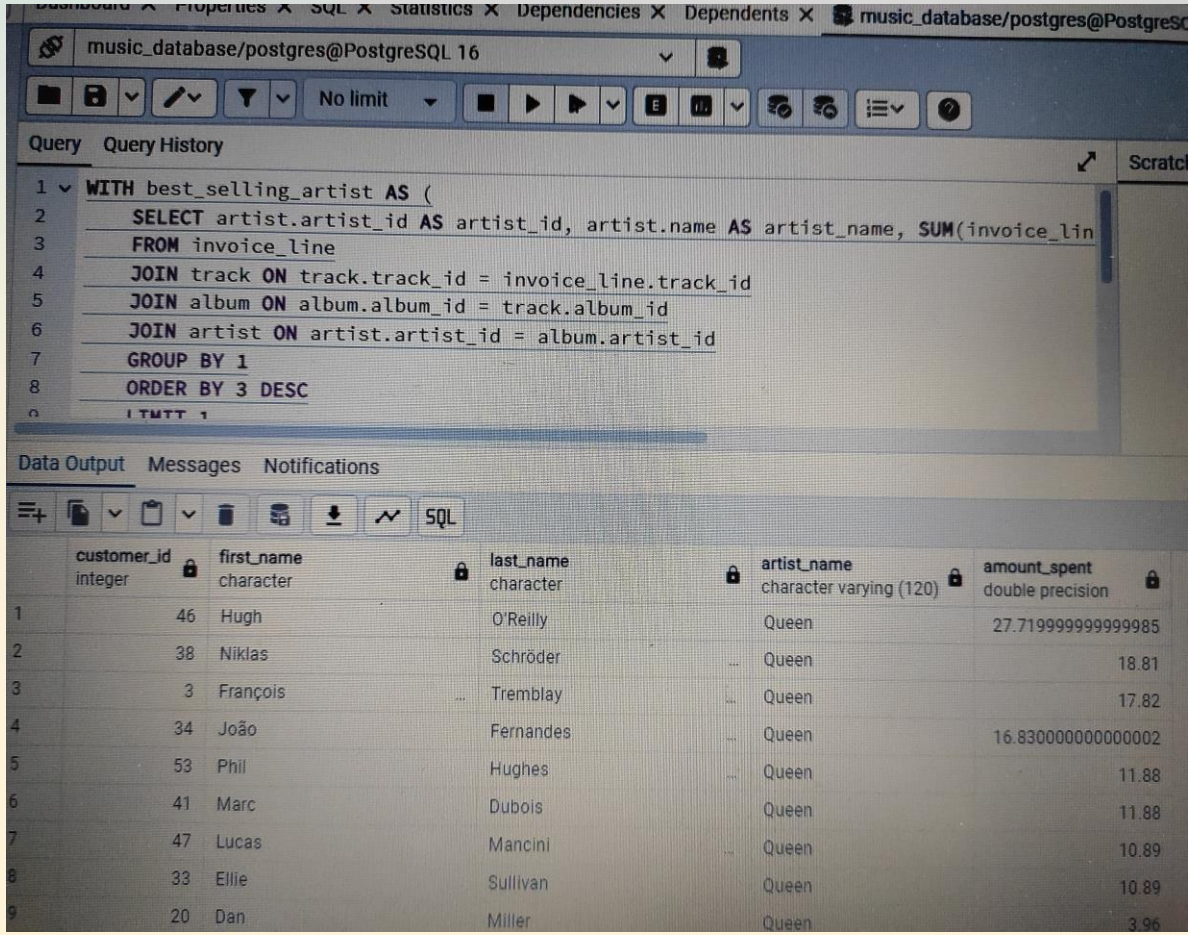
```
SELECT name,miliseconds
FROM track
WHERE miliseconds > ( SELECT
AVG(miliseconds) AS avg_track_length FROM
track )
ORDER BY miliseconds DESC;
```



Q9: Find how much amount spent by each customer on artists? Write a query to return customer name, artist name and total spent

SQL Query

```
WITH best_selling_artist AS (SELECT 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 1
ORDER BY 3 DESC
LIMIT 1
)
```

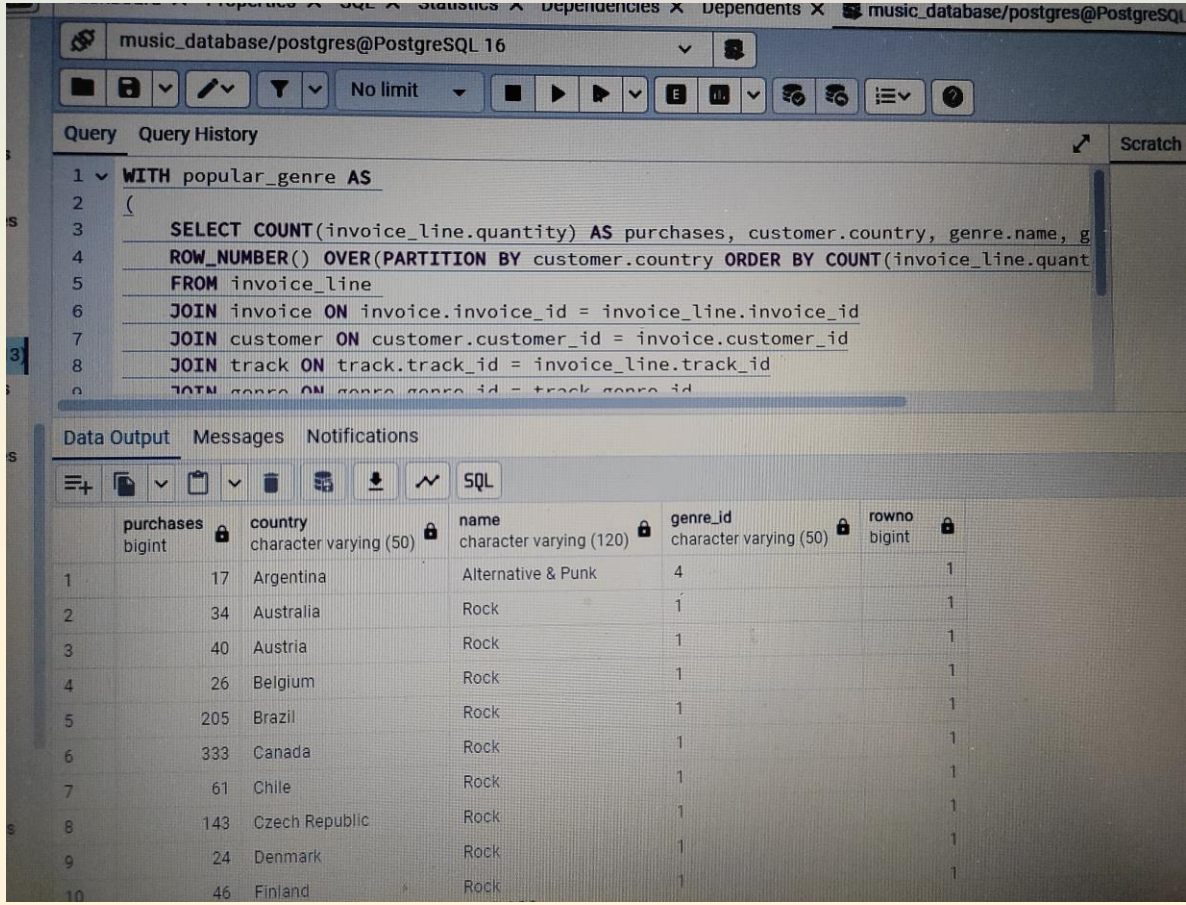


	customer_id integer	first_name character	last_name character	artist_name character varying (120)	amount_spent double precision
1	46	Hugh	O'Reilly	Queen	27.719999999999985
2	38	Niklas	Schröder	Queen	18.81
3	3	François	Tremblay	Queen	17.82
4	34	João	Fernandes	Queen	16.830000000000002
5	53	Phil	Hughes	Queen	11.88
6	41	Marc	Dubois	Queen	11.88
7	47	Lucas	Mancini	Queen	10.89
8	33	Ellie	Sullivan	Queen	10.89
9	20	Dan	Miller	Queen	3.96

Q10: 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. For countries where the maximum number of purchases is shared return all Genres.

SQL Query

```
WITH popular_genre AS
 (
SELECT COUNT(invoice_line.quantity) AS purchases,
customer.country, genre.name, genre.genre_id,
ROW_NUMBER() OVER(PARTITION BY customer.country
ORDER BY COUNT(invoice_line.quantity) DESC) AS RowNo
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 2,3,4
ORDER BY 2 ASC, 1 DESC)SELECT * FROM popular_genre
WHERE RowNo <= 1
```

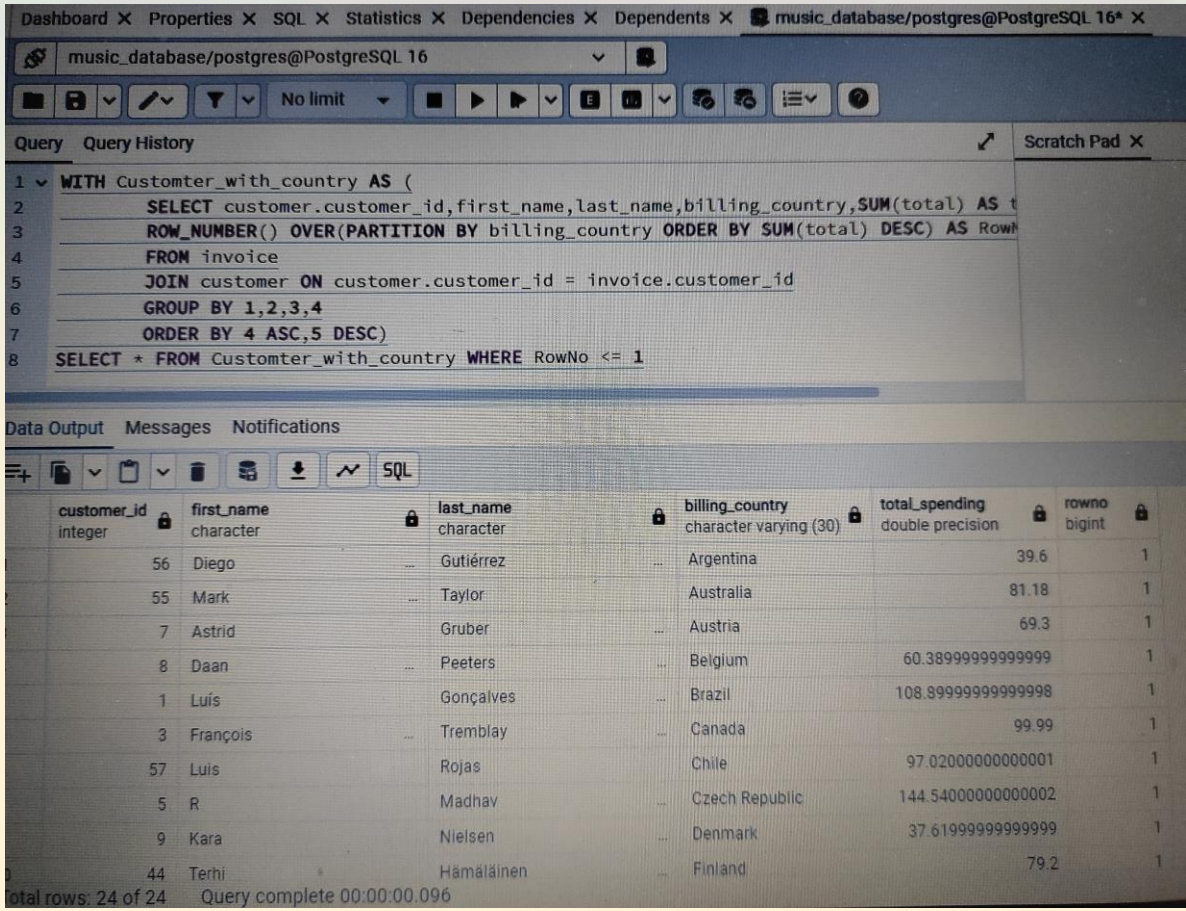


	purchases bigint	country character varying (50)	name character varying (120)	genre_id character varying (50)	rowno bigint
1	17	Argentina	Alternative & Punk	4	1
2	34	Australia	Rock	1	1
3	40	Austria	Rock	1	1
4	26	Belgium	Rock	1	1
5	205	Brazil	Rock	1	1
6	333	Canada	Rock	1	1
7	61	Chile	Rock	1	1
8	143	Czech Republic	Rock	1	1
9	24	Denmark	Rock	1	1
10	46	Finland	Rock	1	1

Q11: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. For countries where the top amount spent is shared, provide all customers who spent this amount.

SQL Query

```
WITH Customter_with_country AS (
SELECT
customer.customer_id,first_name,last_name,billing_country
,SUM(total) AS total_spending, ROW_NUMBER()
OVER(PARTITION BY billing_country
ORDER BY SUM(total) DESC) AS RowNo FROM invoice
JOIN customer ON customer.customer_id =
invoice.customer_id
GROUP BY 1,2,3,4
ORDER BY 4 ASC,5 DESC)
SELECT * FROM Customter_with_country
WHERE RowNo <= 1
```



THANK YOU