# SQL PROJECT

on

## Music_store_analysis

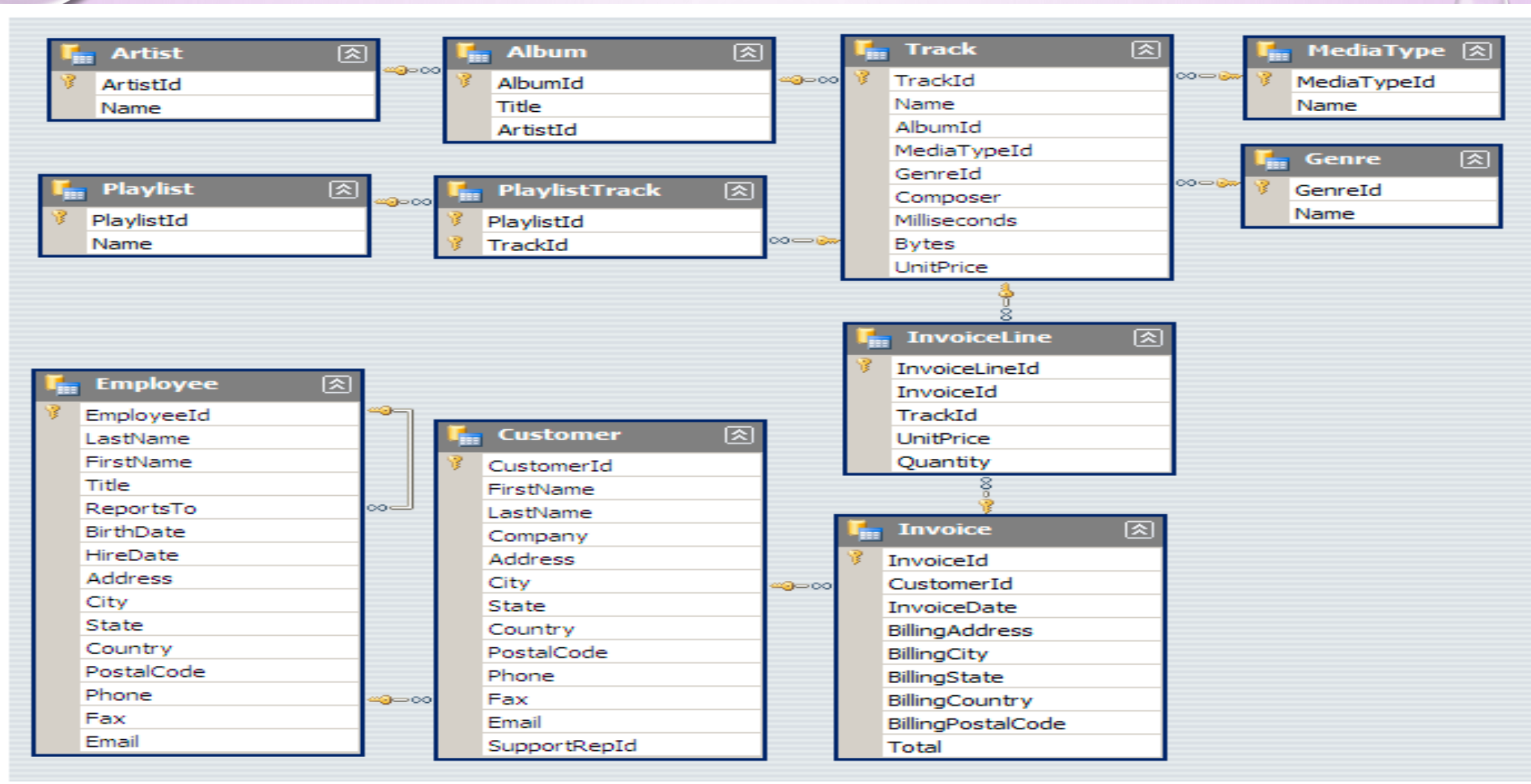
Database used PostgreSQL

Tool used pgAdmin4

# About Project

In this guided project, we will be working with a database called music_store_database which contains information about a fictional music store. The database includes several tables on invoice information, track, album, artist, and genre data, and employee and customer information related to the store's sales. We will use this PostgreSQL database and pgAdmin4 tool in order to explore and analyze three fictional sets of Business questions and Propositions. Questions consist of three sets(easy, moderate, and advanced). Each set of levels consists of questions with their answers and images of the following output.

# No. of Tables

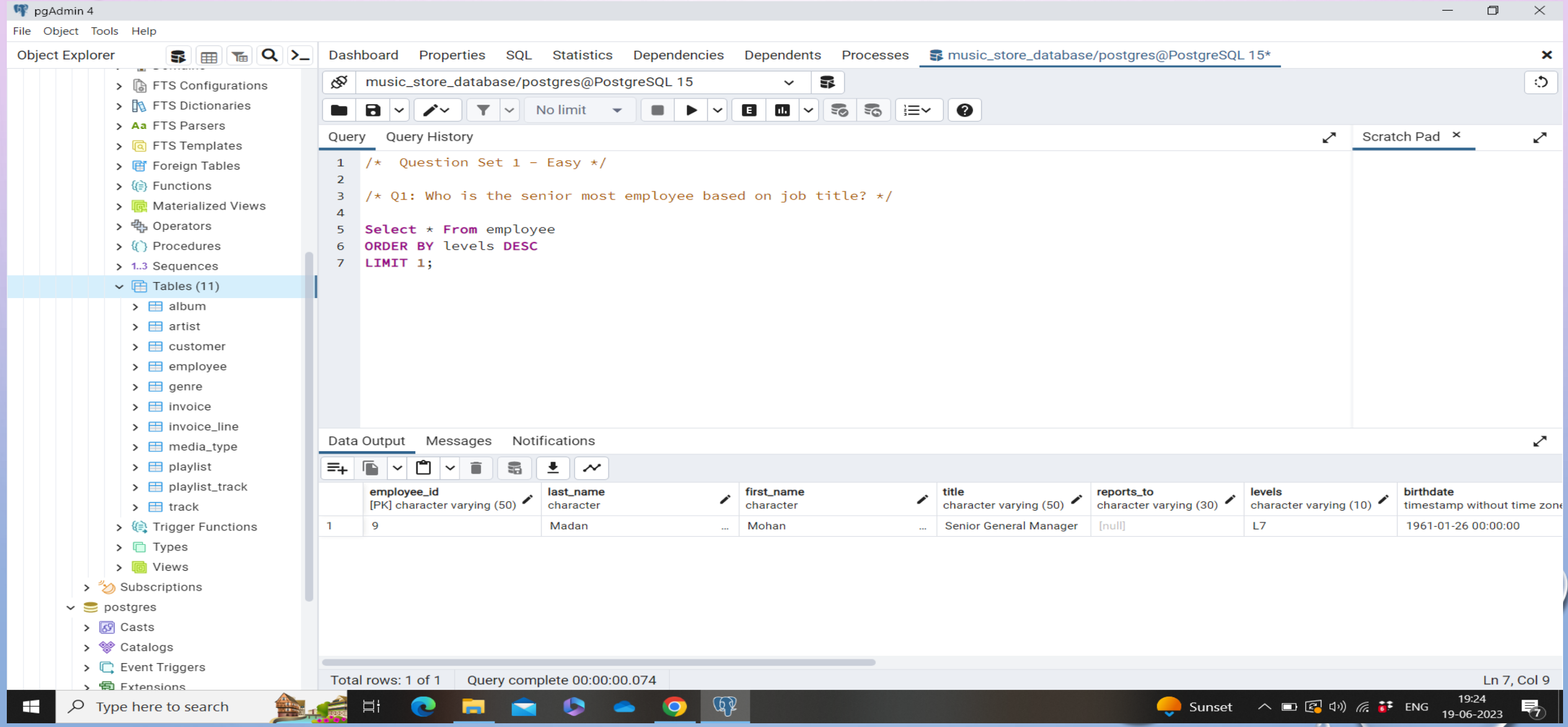

Artist
ArtistId
Name
Album
AlbumId
Title
ArtistId
Track
TrackId
Name
AlbumId
MediaTypeId
GenreId
Composer
Milliseconds
Bytes
UnitPrice
MediaType
MediaTypeId
Name
Genre
GenreId
Name
Playlist
PlaylistId
Name
PlaylistTrack
PlaylistId
TrackId
InvoiceLine
InvoiceLineId
InvoiceId
TrackId
UnitPrice
Quantity
Employee
EmployeeId
LastName
FirstName
Title
ReportsTo
BirthDate
HireDate
Address
City
State
Country
PostalCode
Phone
Fax
Email
Customer
CustomerId
FirstName
LastName
Company
Address
City
State
Country
PostalCode
Phone
Fax
Email
SupportRepId
Invoice
InvoiceId
CustomerId
InvoiceDate
BillingAddress
BillingCity
BillingState
BillingCountry
BillingPostalCode
Total

# Question Set 1 - Easy

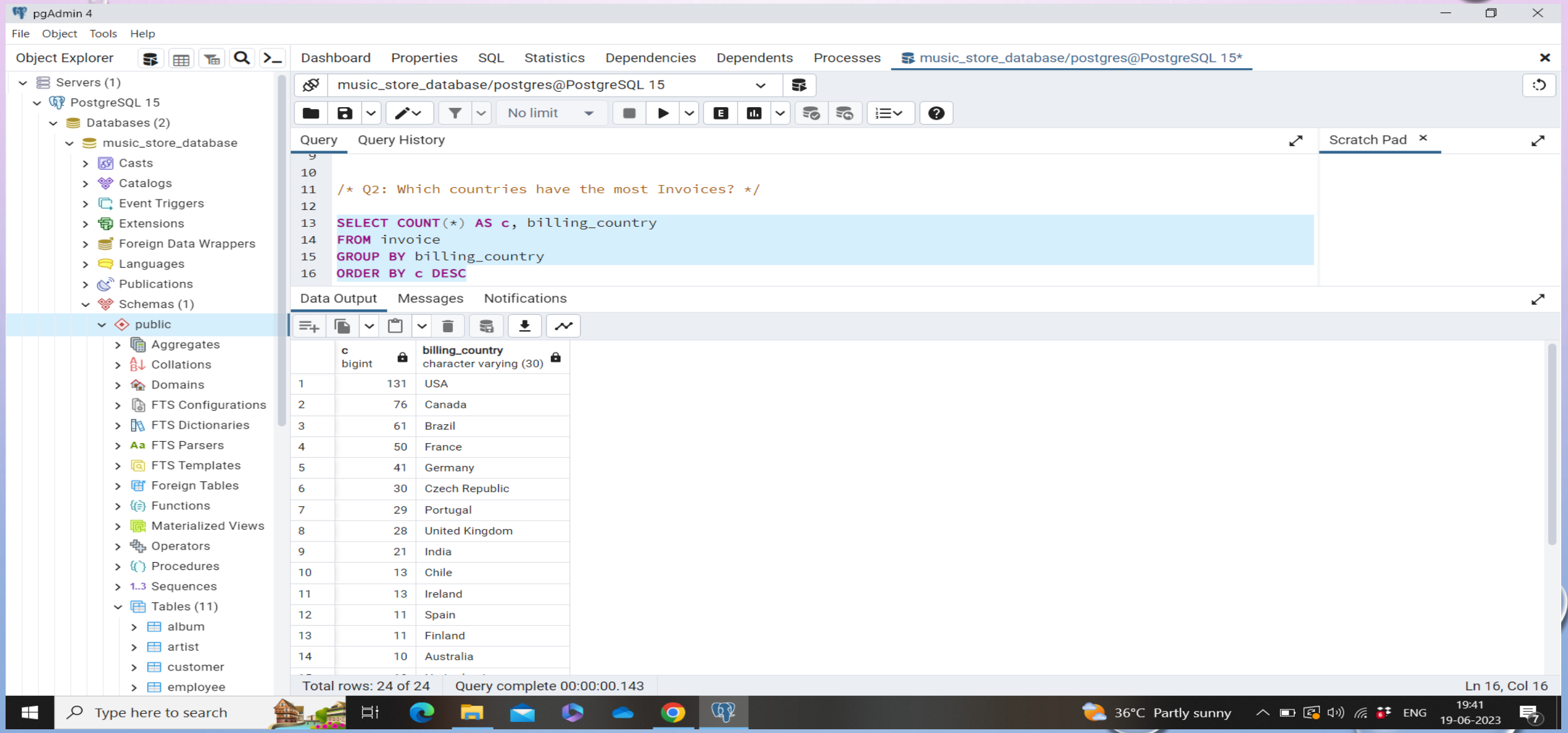
1. Who is the senior most employee based on job title?
2. Which countries have the most Invoices?
3. What are the top 3 values of the total invoice?
4. Which city has the best customers? We would like to throw a promotional Music Festival in the city we made the most money. Write a query that returns one city that has the highest sum of invoice totals. Return both the city name & sum of all invoice totals.
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.

# Answers Set 1 – Easy

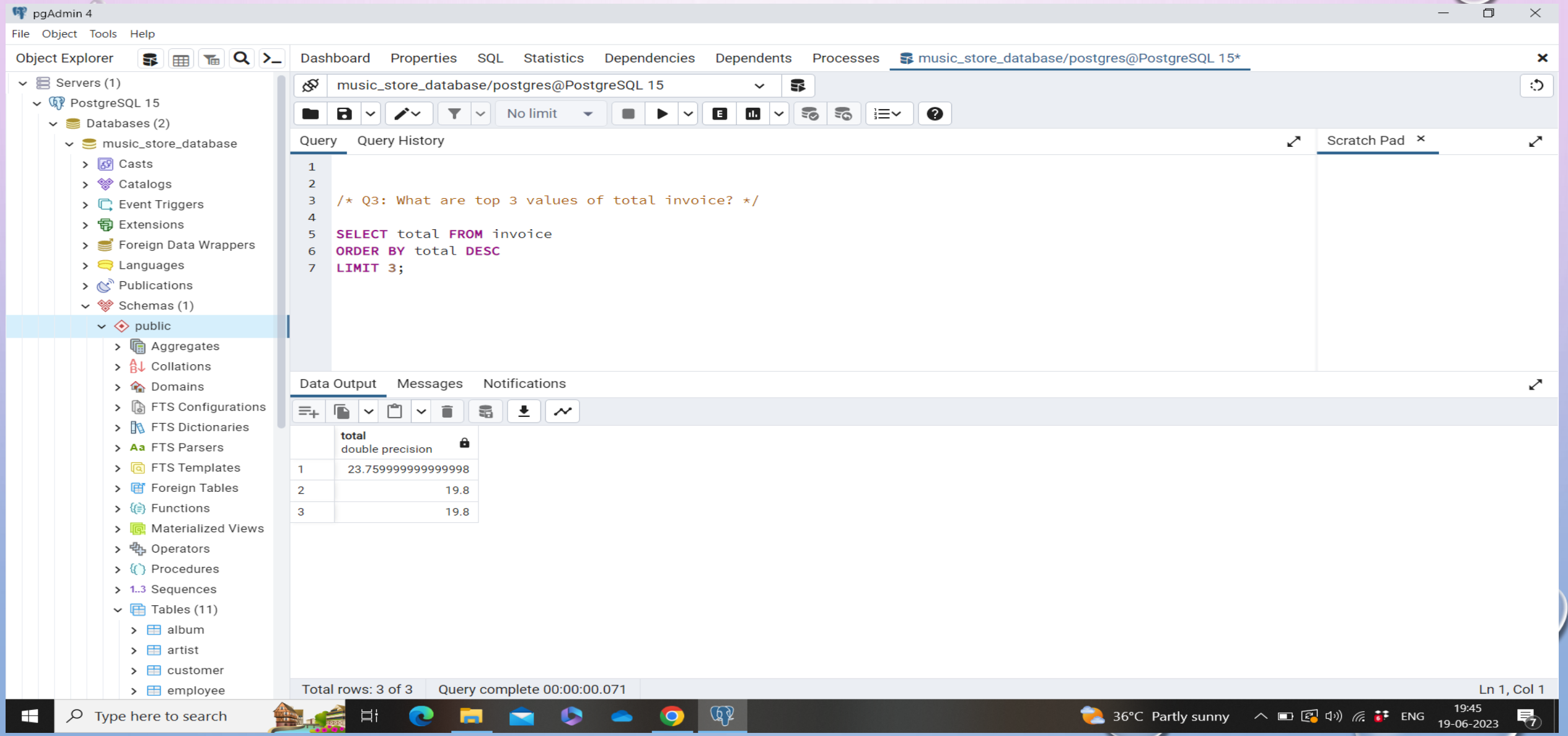
## Ans1. Query with the following output image



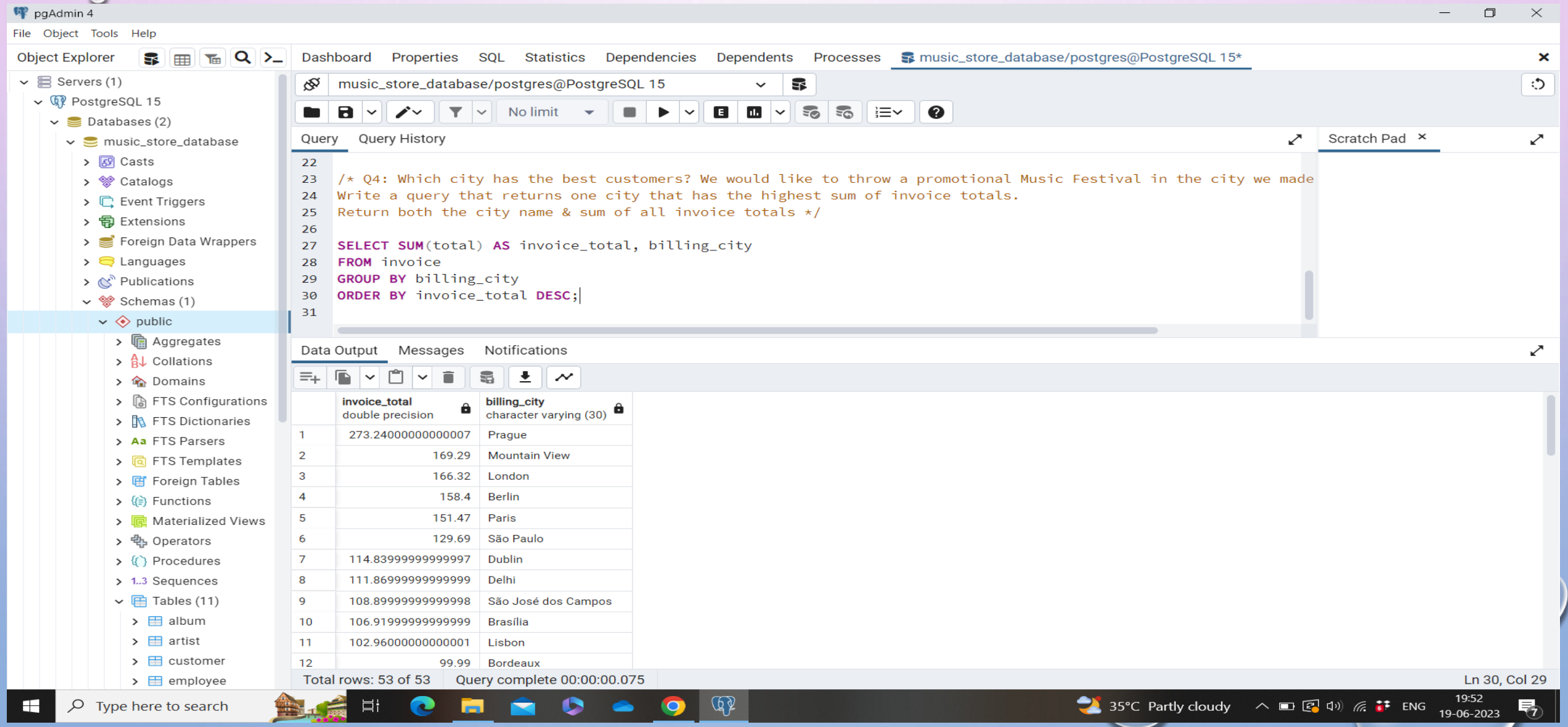
# Ans2. Query with the following output image



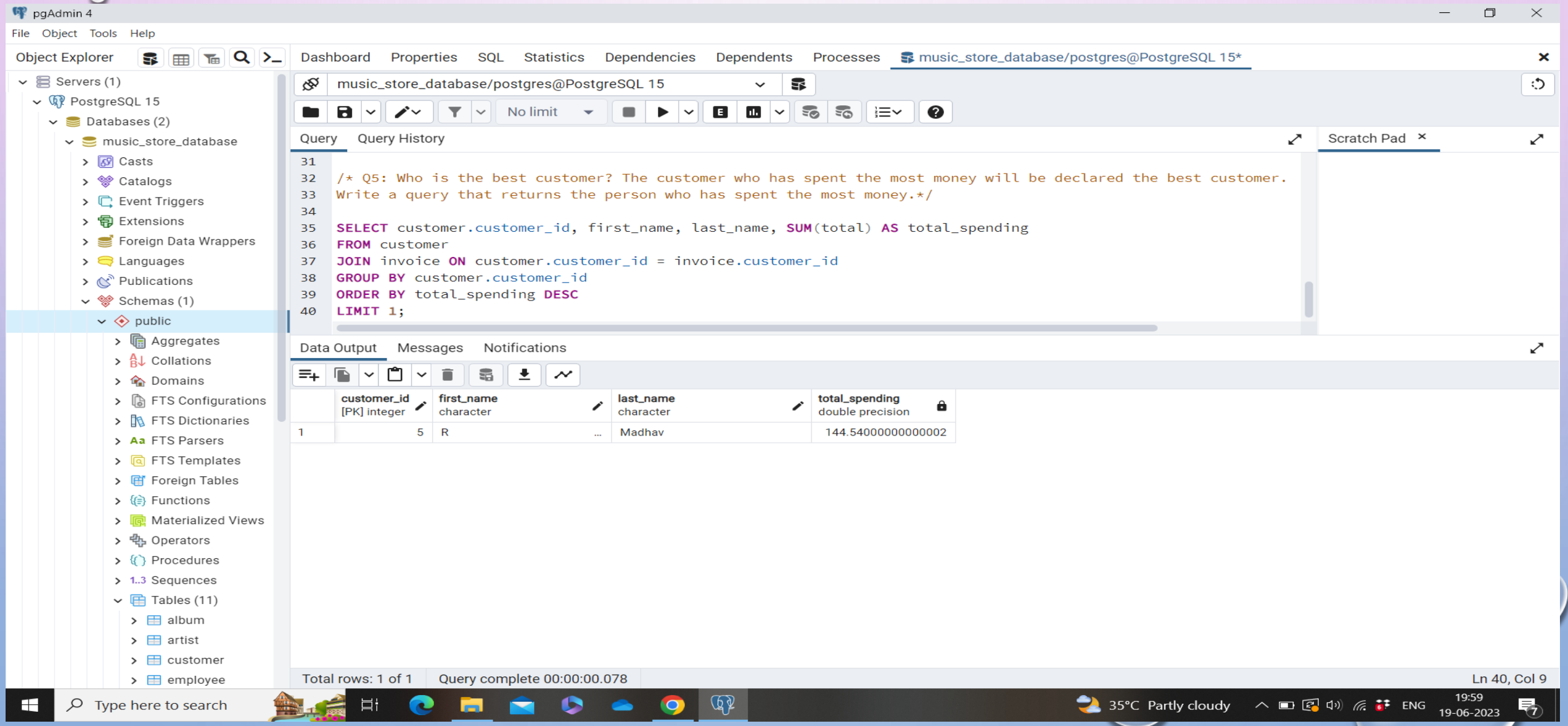
# Ans3. Query with the following output image



# Ans4. Query with the following output image



# Ans5. Query with the following output image



# Question Set 2 – Moderate

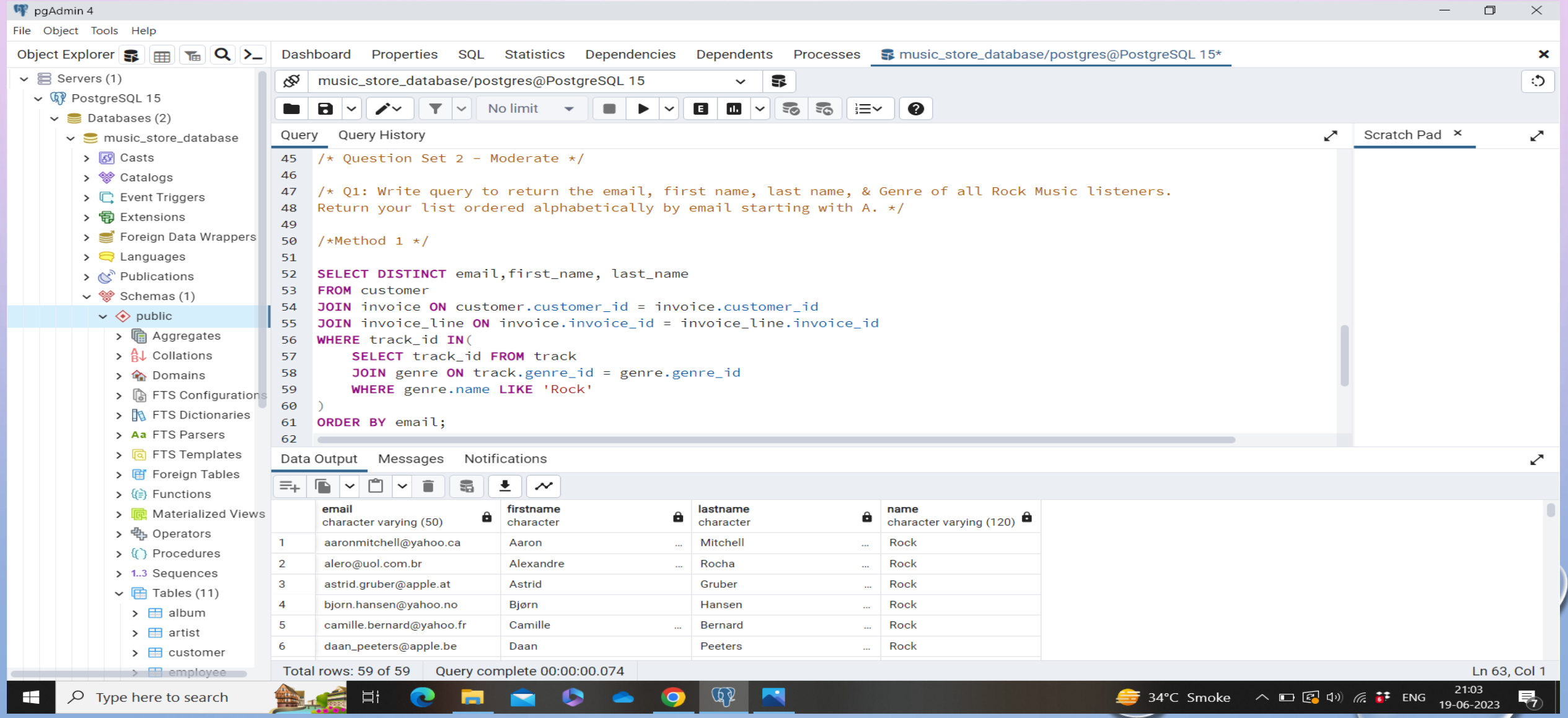
1. Write a query to return the email, first name, last name, & Genre of all Rock Music listeners. Return your list ordered alphabetically by email starting with A.

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.

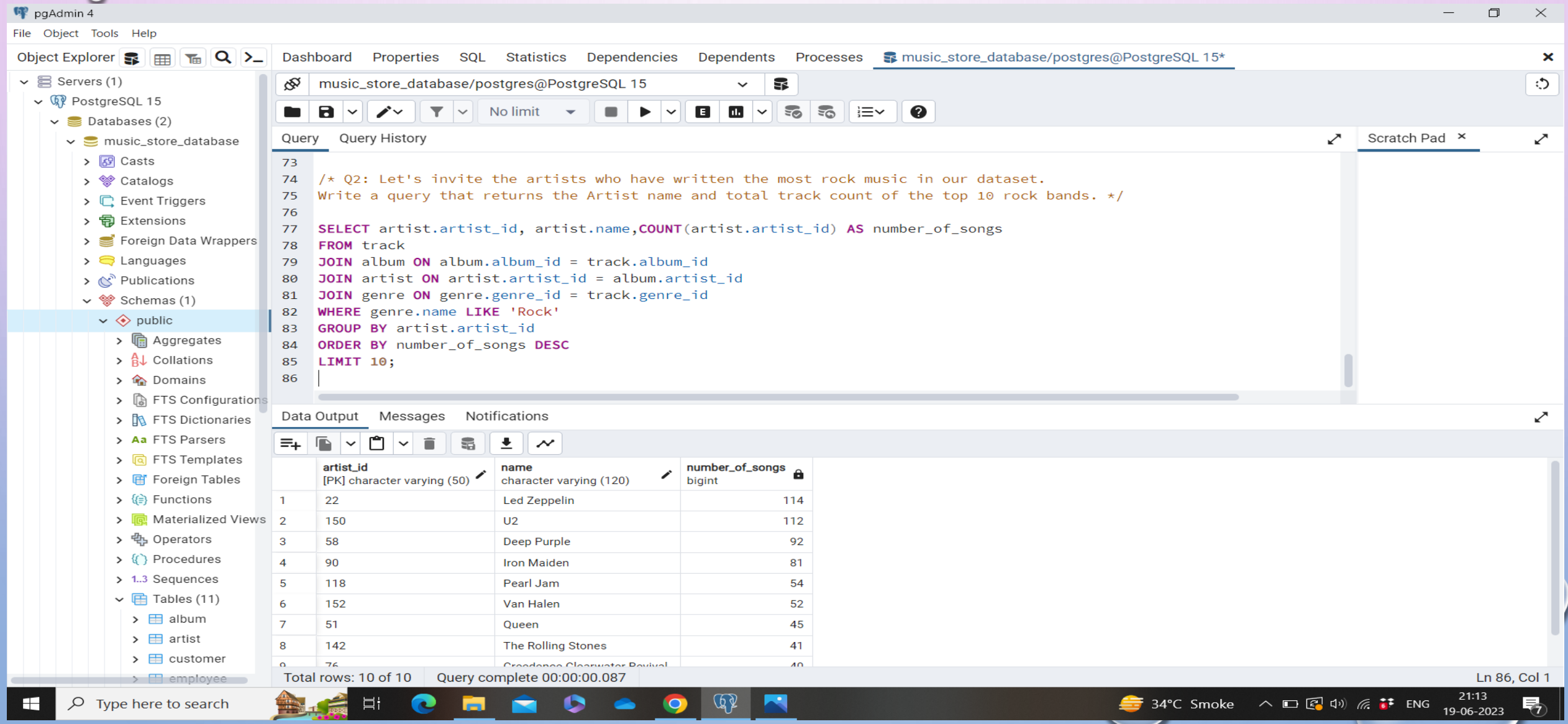
3. Return all the track names with a song length longer than the average. Return the Name and Milliseconds for each track. Order by the song length with the longest songs listed first.

# Answers Set 2 - Moderate

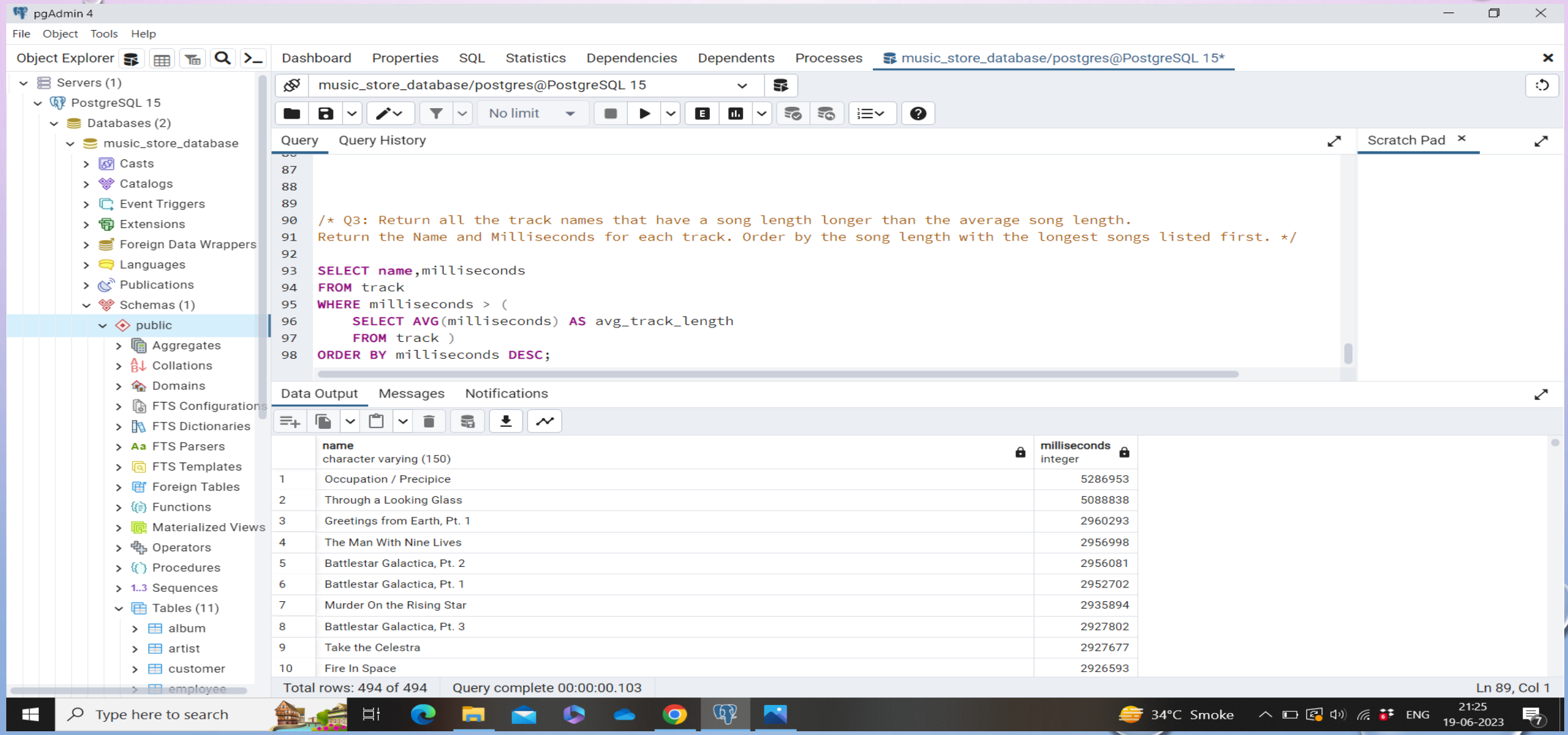
## Ans1. Query with the following output Image



# Ans2. Query with the following output image



# Ans3. Query with the following output image



# Question Set 3 – Advance

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

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

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

# Answers Set 3 - Advance

## Ans1. Query with the following output Image

pgAdmin 4

File Object Tools Help

Dashboard Properties SQL Statistics Dependencies Dependents Processes music_store_database/postgres@PostgreSQL 15*

music_store_database/postgres@PostgreSQL 15

No limit

Query Query History

Scratch Pad

```
/* Question Set 3 - Advance */
/* Q1: 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 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
)
SELECT c.customer_id, c.first_name, c.last_name, bsa.artist_name, SUM(il.unit_price*il.quantity) 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;
```

Data Output Messages Notifications

| | 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 | Francois | Tremblay | Queen | 17.82 |

Total rows: 43 of 43 Query complete 00:00:00.061 Ln 104, Col 68

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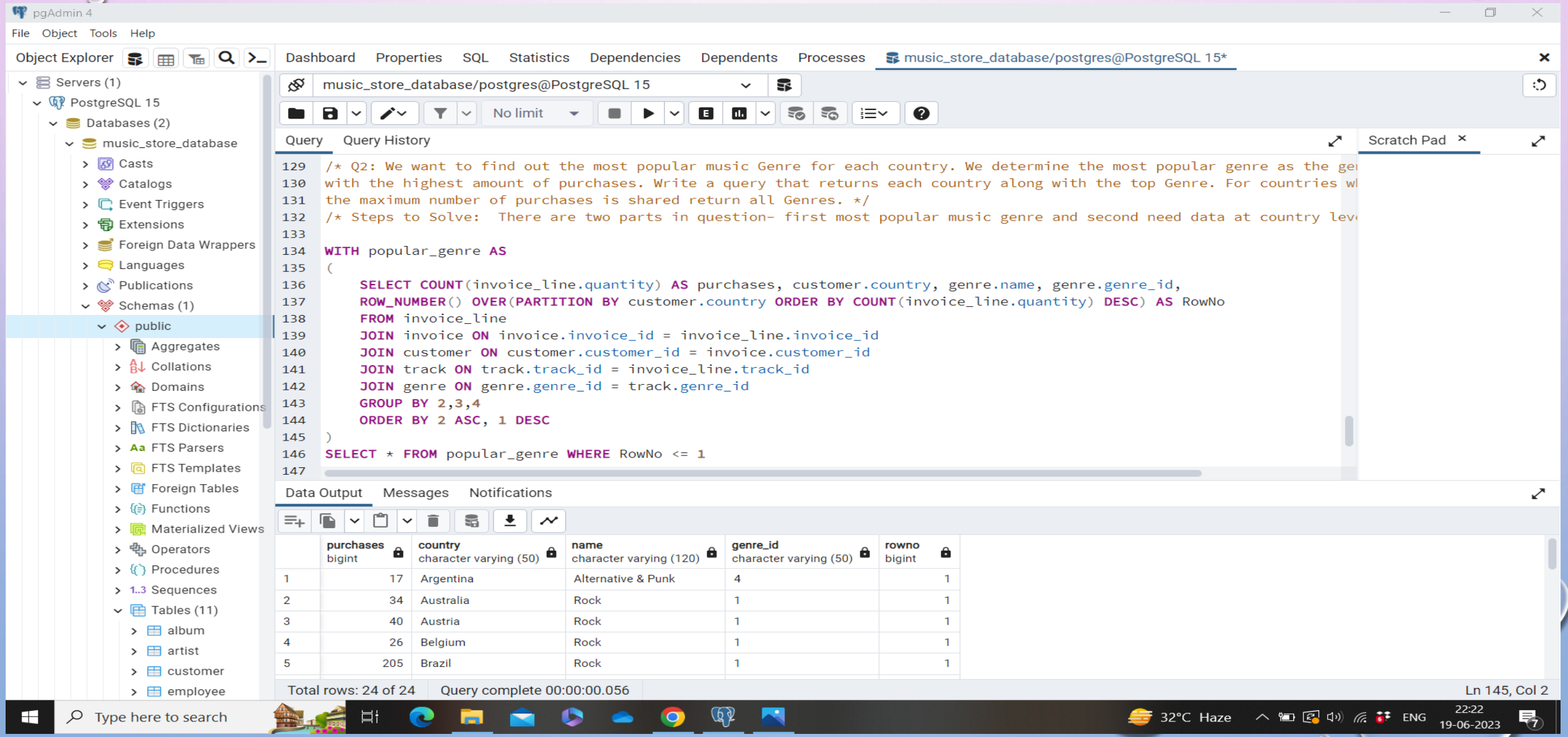
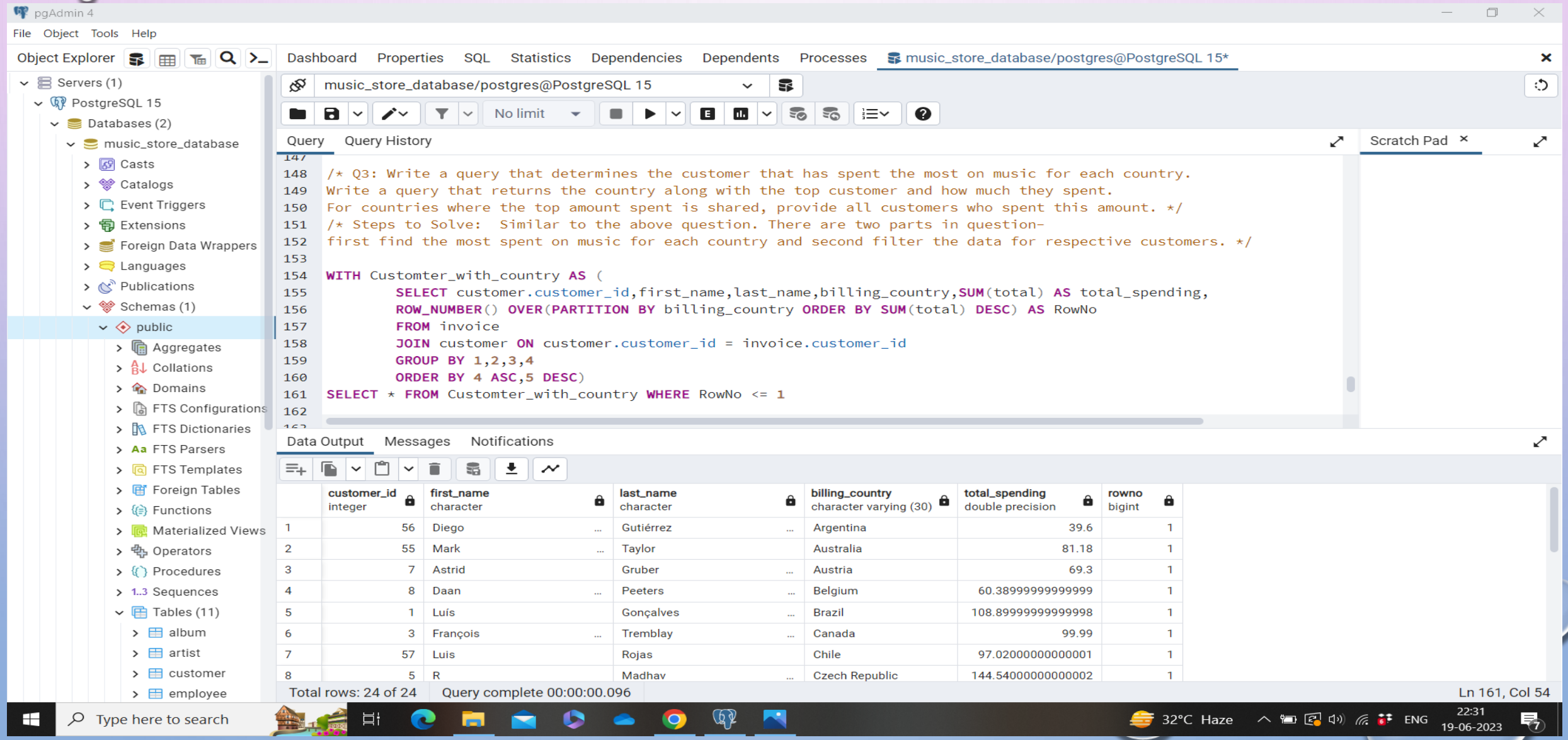
# Ans2. Query with the following output image



# Ans3. Query with the following output image



It’s done

# THANK YOU

You can find the complete project code on my GitHub Repository

https://github.com/neha071999/SQL_Music_store_analysis