

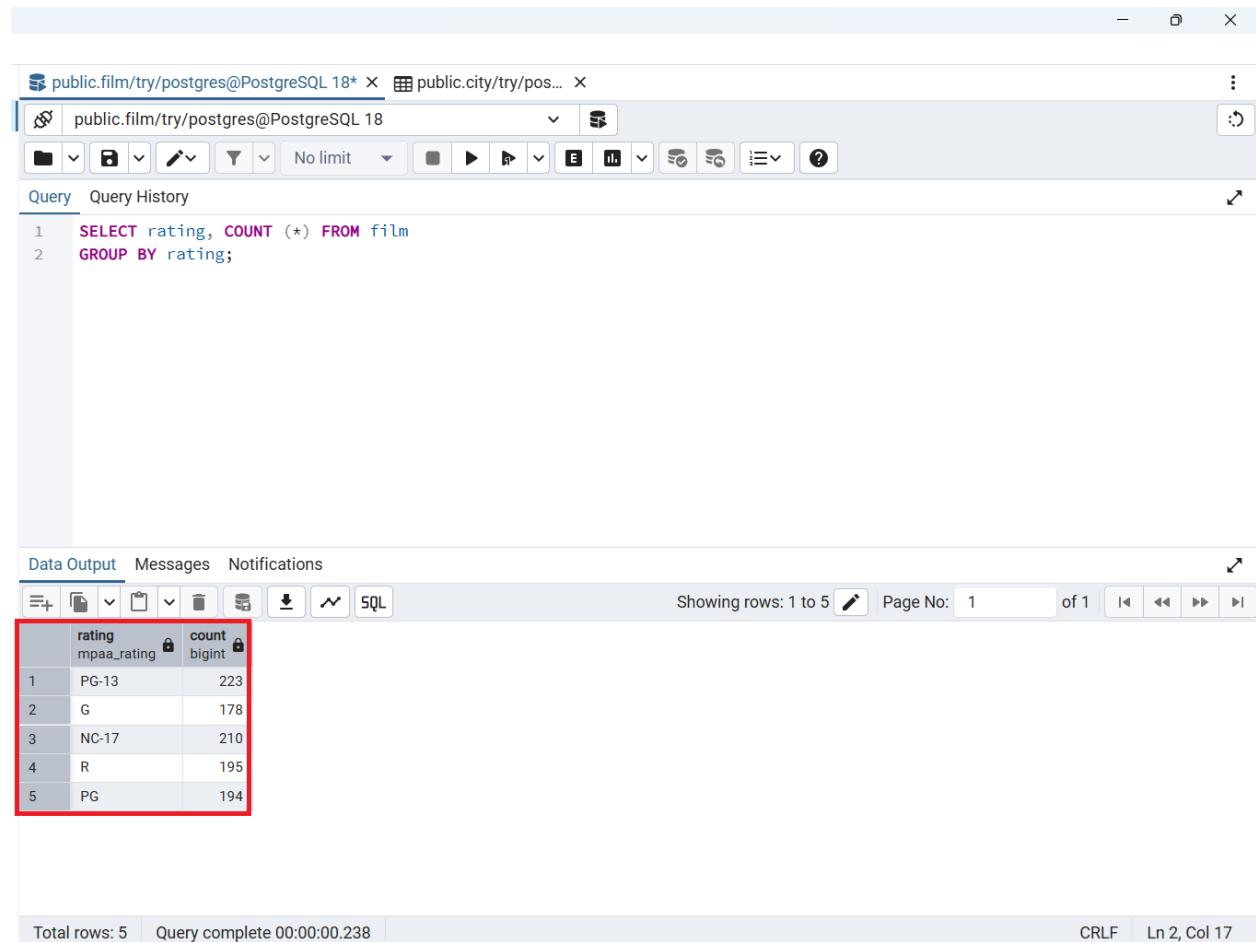
Assignment 7: DVDRental Queries

This assignment focuses on practicing **SQL queries** on the DVDRental database. The main topics include **grouping data, counting entries, filtering grouped data, and sorting results**.

These exercises help improve understanding of aggregate functions, conditional logic, and working with grouped data, which are important for analyzing information in a database.

Query 1:

Description: Count how many films there are for each rating in the film table. This query shows the number of films in every rating group.



The screenshot shows a PostgreSQL client interface with two tabs open: 'public.film/try/postgres@PostgreSQL 18*' and 'public.city/try/pos...'. The SQL tab contains the following query:

```
1  SELECT rating, COUNT (*) FROM film
2  GROUP BY rating;
```

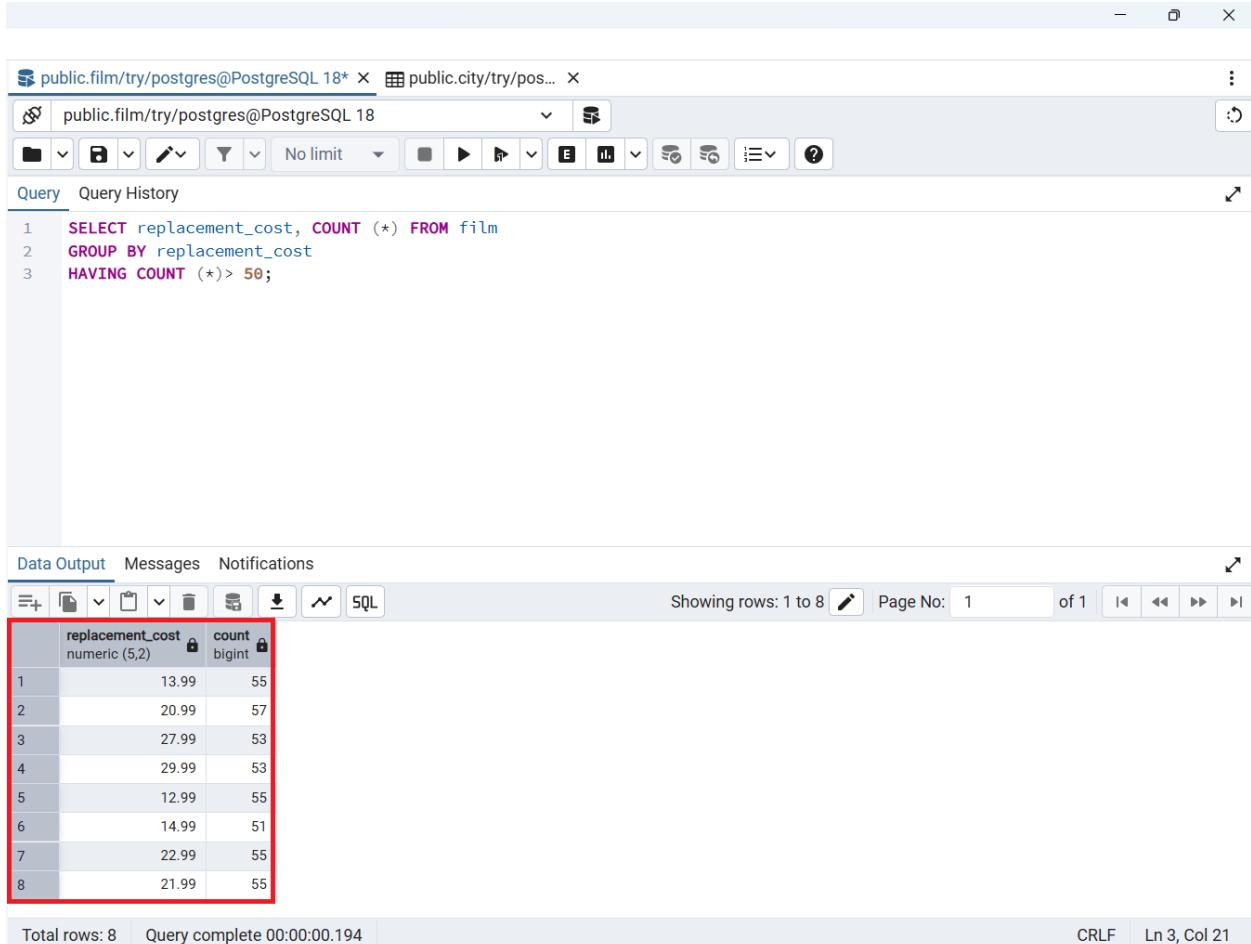
The Data Output tab displays the results of the query:

	rating	mpaa_rating	count	bigint
1	PG-13		223	
2	G		178	
3	NC-17		210	
4	R		195	
5	PG		194	

A red box highlights the first five rows of the result set. At the bottom of the interface, it says 'Total rows: 5' and 'Query complete 00:00:00.238'.

Query 2:

Description: The query shows the number of films for each replacement cost and only includes the costs that have more than 50 films. It helps find which replacement costs are most common.



The screenshot shows a PostgreSQL client interface with the following details:

- Top Bar:** Shows two tabs: "public.film/try/postgres@PostgreSQL 18*" and "public.city/try/pos...".
- Toolbar:** Includes standard database navigation icons like back, forward, search, and refresh.
- Query History:** A dropdown menu showing the history of queries run in the session.
- Query Editor:** Contains the SQL code:

```
1 SELECT replacement_cost, COUNT (*) FROM film
2 GROUP BY replacement_cost
3 HAVING COUNT (*) > 50;
```
- Data Output:** A table showing the results of the query. The table has two columns: "replacement_cost" (datatype numeric(5,2)) and "count" (datatype bigint). The data is as follows:

	replacement_cost	count
1	13.99	55
2	20.99	57
3	27.99	53
4	29.99	53
5	12.99	55
6	14.99	51
7	22.99	55
8	21.99	55

- Bottom Status Bar:** Shows "Total rows: 8" and "Query complete 00:00:00.194".
- Bottom Right:** Buttons for "CRLF" and "Ln 3, Col 21".

Query 3:

Description: The query shows how many customers belong to each store. It helps understand the number of customers for every store.

The screenshot shows the pgAdmin 4 interface with two tabs open: 'public.film/try/postgres@PostgreSQL 18*' and 'public.city/try/pos...'. The query tab contains the following SQL code:

```
1  SELECT store_id, COUNT(*) FROM customer
2  GROUP BY store_id;
```

The results are displayed in a Data Output tab:

store_id	count
1	326
2	273

The entire result table is highlighted with a red box. The status bar at the bottom indicates 'Total rows: 2' and 'Query complete 00:00:00.103'.

Query 4:

Description: The query shows the number of cities in each country and finds the country with the most cities. It helps see which country has the highest number of cities.

The screenshot shows a PostgreSQL client interface with the following details:

- Top Bar:** Shows two tabs: "public.film/try/postgres@PostgreSQL 18*" and "public.city/try/pos...".
- Toolbar:** Includes icons for file operations, search, and various database functions.
- Query History:** Labeled "Query History" with a magnifying glass icon.
- SQL Editor:** Contains the following SQL code:

```
1 SELECT (country_id), COUNT (*) FROM city
2 GROUP BY country_id
3 ORDER BY COUNT (*) DESC
4 LIMIT 1;
```
- Data Output:** Shows the results of the query in a table format.

	country_id	count
1	44	60

The row with country_id 44 and count 60 is highlighted with a red border.
- Bottom Status Bar:** Displays "Total rows: 1" and "Query complete 00:00:00.093".
- Bottom Right:** Shows "CRLF" and "Ln 4, Col 9".