

## Assignment 4: DVDRental Queries

This assignment focuses on practicing basic SQL queries on the DVDRental database.

The main topics include retrieving distinct values, counting entries, filtering data, and applying multiple conditions.

These exercises help improve understanding of data querying, conditional logic, and aggregate functions in SQL.

### Query 1:

**Description:** Retrieve all distinct values from the replacement\_cost column in the film table. This query focuses on identifying and listing unique data entries.

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

```
1 SELECT DISTINCT replacement_cost FROM film;
```

The results are displayed in a Data Output window, showing a single column named 'replacement\_cost' with numeric values (5,2) for 21 rows. The first 9 rows are highlighted with a red border. The data is as follows:

replacement_cost
19.99
25.99
13.99
10.99
23.99
18.99
20.99
24.99
11.99
19.99
25.99
13.99
10.99
23.99
18.99
20.99
24.99
11.99
19.99
25.99
13.99
10.99
23.99
18.99
20.99
24.99
11.99

Total rows: 21 | Query complete 00:00:00.107 | CRLF | Ln 2, Col 1

Query 2:

**Description:** Count the number of distinct values in the replacement\_cost column of the film table. This query focuses on determining how many unique entries exist in a dataset.

The screenshot shows the pgAdmin 4 interface with a query editor and a results table.

**Query Editor:**

```
1 SELECT COUNT(DISTINCT replacement_cost) FROM film;
```

**Results Table:**

count	bigint
1	21

A red box highlights the first row of the results table, specifically the 'count' column value '21'.

**Status Bar:**

Total rows: 1 Query complete 00:00:00.089 CRLF Ln 2, Col 1

### Query 3:

**Description:** Count the number of films in the `film` table whose titles start with the letter 'T' and have a rating of 'G'. This query focuses on filtering data using multiple conditions.

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

```
1 SELECT COUNT(*) AS title FROM film
2 WHERE title LIKE 'T%'
3 AND rating = 'G';
4
```

The 'Data Output' tab displays the results of the query:

	title	bigint
1		9

A red box highlights the first row of the result table. The status bar at the bottom left shows 'Total rows: 1' and 'Query complete 00:00:00.173'. A green message bar at the bottom right indicates 'Successfully run. Total query runtime: 173 msec. 1 rows affected.' with a close button.

#### Query 4:

**Description:** Count the number of countries in the country table whose names consist of exactly 5 characters. This query focuses on filtering data based on text length.

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

```
1 SELECT COUNT (*) FROM country
2 WHERE country LIKE '_____';
3
```

The results are displayed in the 'Data Output' tab, showing a single row with the column 'count' containing the value 13. This row is highlighted with a red border. The status bar at the bottom indicates 'Total rows: 1' and 'Query complete 00:00:00.081'. A green message box in the bottom right corner says 'Successfully run. Total query runtime: 81 msec. 1 rows affected.'

count	bigint
1	13

Query 5:

**Description:** Count the number of cities in the city table whose names end with the letter 'R' or 'r'. This query focuses on filtering data based on specific text patterns.

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

```
1 SELECT COUNT(*) FROM city
2 WHERE city ILIKE '%R';
3
```

The 'Data Output' tab displays the results of the query:

count	bigint
1	33

A red box highlights the first column header 'count' and the first row value '33'. In the status bar at the bottom, it says 'Total rows: 1' and 'Query complete 00:00:00.117'. A green message box indicates 'Successfully run. Total query runtime: 117 msec. 1 rows affected.' with a close button.