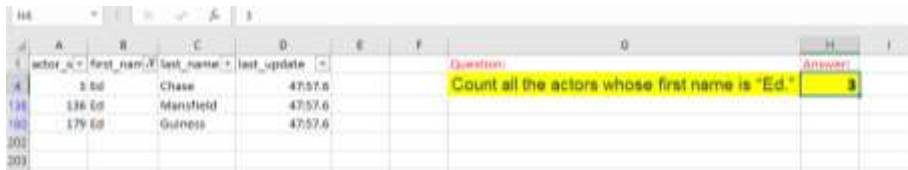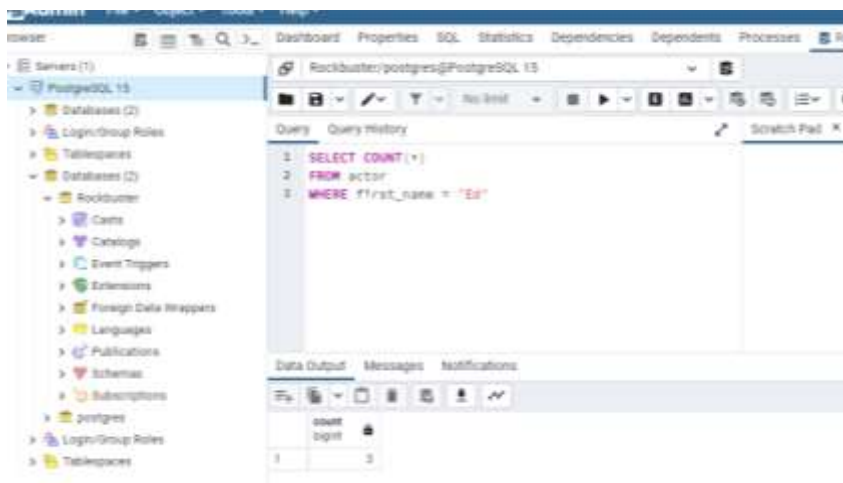- Drawing on what you've learned in previous Achievements, use the appropriate functions in Excel to count all the actors whose first name is "Ed." Write down the result in a text document.

- There are three actors, whose first name is ED.

- Launch pgAdmin 4, open the Query Tool, copy-paste the SQL statement below into the Query Editor, and execute it.

Check that your answer matches your answer from step 2a.

Yes, same answer. It was easier to use SQL. With Excel, we need to take care of certain points such as whether the correct cell has been selected or if the formula has been given in correctly. With this, it was quite simple by executing the query.

- Execute the following query and list the names of the columns in the payment table.

```
SELECT * FROM payment LIMIT 10
```
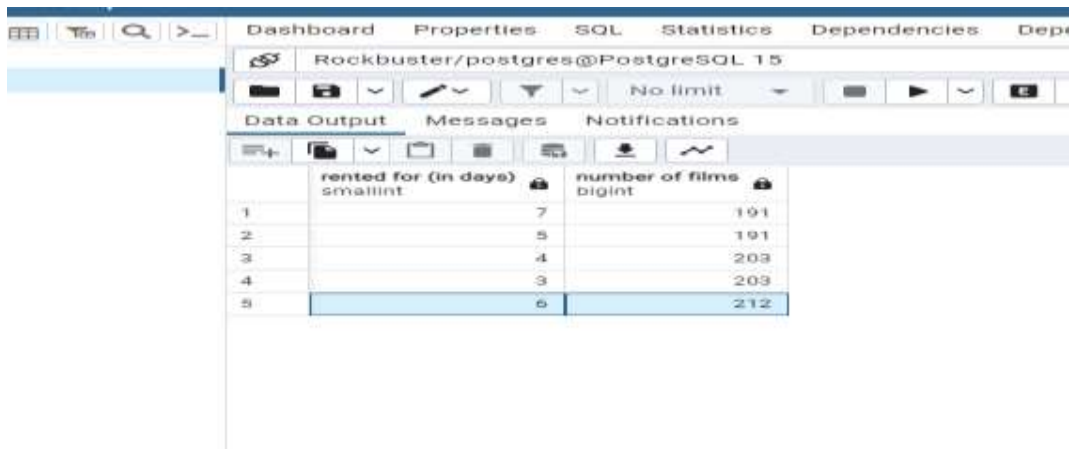
Answers:

1. Payment_id
2. Customer_id
3. Staff_id
4. Rental_id
5. Amount
6. Payment_dates

- Under the "table_name" column, what are the names of the tables that are available in the Rockbuster database? (List all names.)

```
SELECT * FROM information_schema.tables

WHERE table_schema = 'public'

AND table_type = 'BASE TABLE
```

1. Actor
2. Store
3. Address
4. Category
5. City
6. Country
7. Film Actor
8. Film Category
9. Inventory
10. Language
11. Rental
12. Staff
13. Payment
14. Film

15. Analyze the rental duration distribution. How many days are most films rented for?

```
SELECT rental_duration AS "rented for (in days)", COUNT(*) AS "number of films"

FROM film

GROUP BY 1

ORDER BY 2
```

Step 4 Think about who in Rockbuster Stealth might want to use an OLAP or OLTP system for their data needs; for example, the sales department, which is interested in sales trends, would likely use an OLAP system.

Think about who in Rockbuster Stealth might want to use an OLAP or OLTP system for their data needs; for example, the sales department, which is interested in sales trends, would likely use an OLAP system. Describe at least 2 situations for each type of system.

OLAP: Online Analytical Processing

 OLTP: Online Transaction Processing

● Marketing department can use OLAP for market research analysis, sales forecasting, promotions analysis, customer analysis, and market/customer segmentation.

● Inventory & Procurements can use OLTP, with movies being rented out, returning thus the need to insert or update records in the system.

Step 5

Rockbuster Stealth has received an invoice for the licenses for its new video collection.

Take a moment to familiarize yourself with data in the invoice, then note down the answers to the questions below.

1. Does the invoice contain structured or unstructured data? Write an explanation for your answer.

2. Organize and store the information on the invoice in a database. Step one will be to create a table in the text document you've started (you can insert a table if you're using MS Word or Google Docs, for example). Make sure your table contains columns with the appropriate labels, as well as the values from the invoice in each column. You're focusing, here, on a high-level structuring of your data.

1. Yes, Structured. Because all the information are clearly specified and could be categorised into different variables.

- Customer

Title	First name	Last name	Gender	Address	City	State	State Abbreviation
Mr	Timothy	Walker	Male	40 Sheila La	Sparks	Nevada	NV

- Transaction

Invoce No.	Item	Quantity	Description	Currency	Price
2019001	001	01	New Video Collection Licensing	$	730$

- Merchant

Name	Address	City	State	State Abbreviation	Account Name	Account no.
Oklanders	4826 Norma Avenue Anderson, TX	Anderson	Texas	TX	Miko Santo	4929331000575422