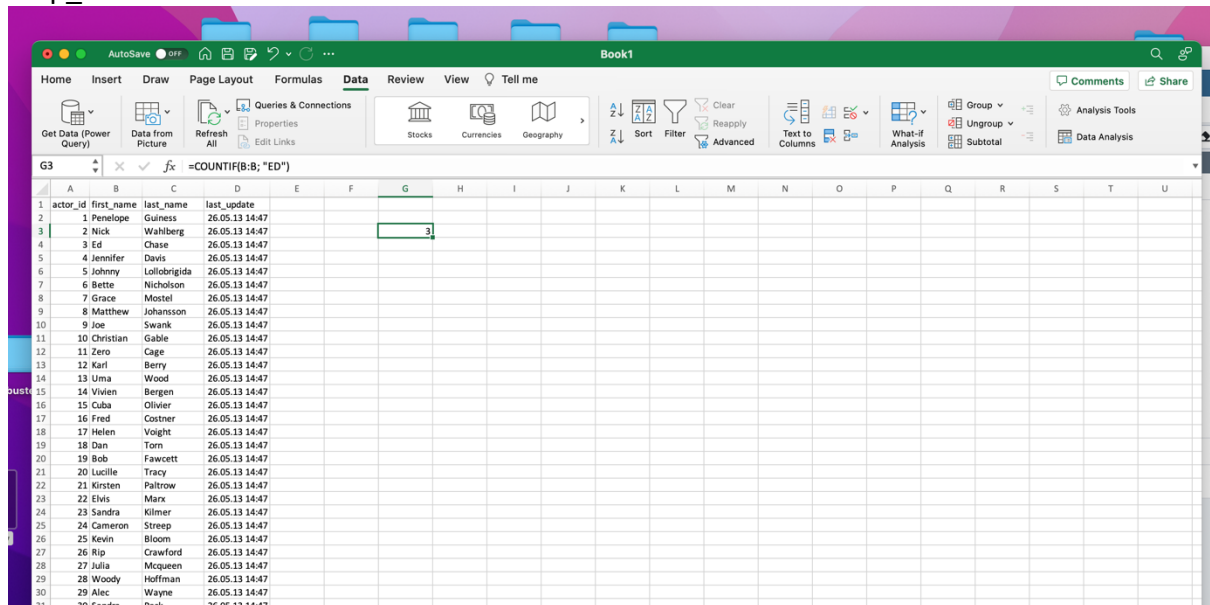


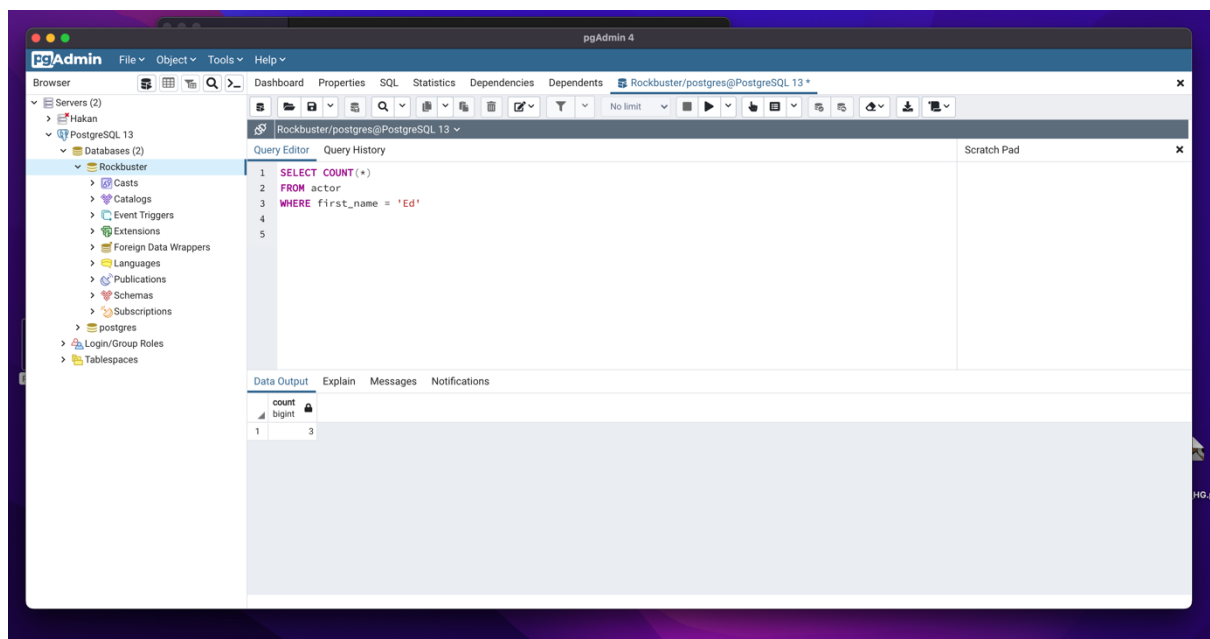
## TASK\_3.1: Intro to Relational Databases

### Step\_2:



The screenshot shows a Microsoft Excel spreadsheet titled 'Book1'. The 'Data' tab is active. A table with 4 columns (actor\_id, first\_name, last\_name, last\_update) and 31 rows of actor data is visible. The formula bar shows the formula `=COUNTIF(B:B; "ED")` entered in cell G3. The result of the formula, '3', is displayed in cell G3.

actor_id	first_name	last_name	last_update
1	Penelope	Guiness	26.05.13 14:47
2	Nick	Wahlberg	26.05.13 14:47
3	Ed	Chase	26.05.13 14:47
4	Jennifer	Davis	26.05.13 14:47
5	Johnny	Lolobrigida	26.05.13 14:47
6	Bette	Nicholson	26.05.13 14:47
7	Grace	Mostel	26.05.13 14:47
8	Matthew	Johansson	26.05.13 14:47
9	Joe	Swank	26.05.13 14:47
10	Christian	Gable	26.05.13 14:47
11	Zero	Cage	26.05.13 14:47
12	Karl	Berry	26.05.13 14:47
13	Uma	Wood	26.05.13 14:47
14	Vivien	Bergen	26.05.13 14:47
15	Cuba	Olivier	26.05.13 14:47
16	Fred	Costner	26.05.13 14:47
17	Helen	Voight	26.05.13 14:47
18	Dan	Torn	26.05.13 14:47
19	Bob	Fawcett	26.05.13 14:47
20	Lucille	Tracy	26.05.13 14:47
21	Kirsten	Paltrow	26.05.13 14:47
22	Elvis	Marx	26.05.13 14:47
23	Sandra	Kilmer	26.05.13 14:47
24	Cameron	Streep	26.05.13 14:47
25	Kevin	Bloom	26.05.13 14:47
26	Rip	Crawford	26.05.13 14:47
27	Julia	McQueen	26.05.13 14:47
28	Woody	Hoffman	26.05.13 14:47
29	Alec	Wayne	26.05.13 14:47
30	Sandra	Peck	26.05.13 14:47



The screenshot shows the pgAdmin 4 interface. The 'Query Editor' window displays a SQL query: `SELECT COUNT(*) FROM actor WHERE first_name = 'Ed'`. The 'Data Output' window shows the result of the query: a single row with the value '3'.

count
3

- I used „=COUNTIF“ function in Excel to measure the counts of the name “ed”. Both results were 3.
- Excel was simple than pgAdmin 4 but pgAdmin is more fun, challenging, and professional.

### Step\_3:

The image displays two screenshots of the pgAdmin 4 interface, showing SQL queries and their results.

**Top Screenshot:**

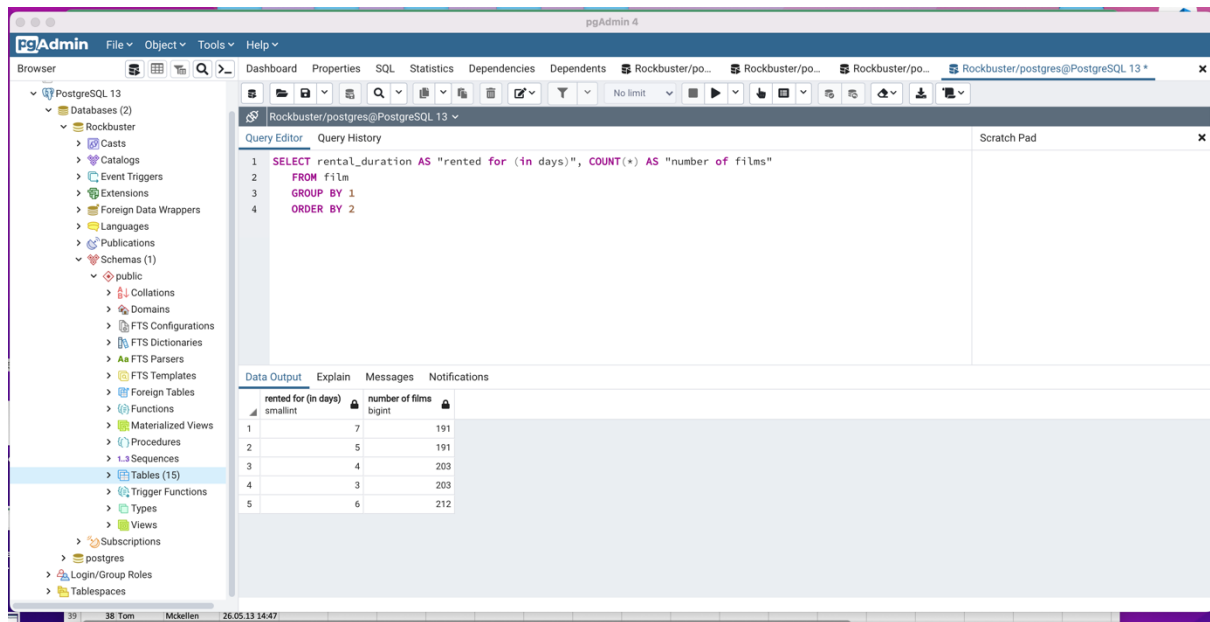
- Query Editor:** The query is `SELECT * FROM payment LIMIT 10;`
- Data Output:** The results show 10 rows of data from the `payment` table. The columns are `payment_id` (integer), `customer_id` (smallint), `staff_id` (smallint), `rental_id` (integer), `amount` (numeric), and `payment_date` (timestamp without time zone).

payment_id	customer_id	staff_id	rental_id	amount	payment_date
17503	341	2	1520	7.99	2007-02-15 22:25:46.996577
17504	341	1	1778	1.99	2007-02-16 17:23:14.996577
17505	341	1	1849	7.99	2007-02-16 22:41:45.996577
17506	341	2	2829	2.99	2007-02-19 19:39:56.996577
17507	341	2	3130	7.99	2007-02-20 17:31:48.996577
17508	341	1	3382	5.99	2007-02-21 12:33:49.996577
17509	342	2	2190	5.99	2007-02-17 23:58:17.996577
17510	342	1	2914	5.99	2007-02-20 02:11:44.996577
17511	342	1	3081	2.99	2007-02-20 13:57:39.996577
17512	343	3	1549	4.99	2007-02-16 09:45:09.996577

**Bottom Screenshot:**

- Query Editor:** The query is `SELECT * FROM information_schema.tables WHERE table_schema = 'public' AND table_type = 'BASE TABLE';`
- Data Output:** The results show 8 rows of data from the `information_schema.tables` table. The columns are `table_catalog`, `table_schema`, `table_name`, `table_type`, `self_referencing_column_name`, `reference_generation`, `user_defined_type_catalog`, `user_defined_type_schema`, and `user_defined_type_name`.

table_catalog	table_schema	table_name	table_type	self_referencing_column_name	reference_generation	user_defined_type_catalog	user_defined_type_schema	user_defined_type_name
Rockbuster	public	actor	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	store	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	address	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	category	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	city	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	country	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	customer	BASE TABLE	[null]	[null]	[null]	[null]	[null]
Rockbuster	public	film_actor	BASE TABLE	[null]	[null]	[null]	[null]	[null]



- There is no "table\_name" column after selecting from payment
- Tables available: actor, store, address, category, city, country, customer, film\_actor, film\_category, inventory, language, rental, staff, payment, film
- You can also find the tables under: "Schemas", "public", and "Tables".

#### Step\_4:

OLAP will be interesting to analysts if there is any complains about the product to give a better service.

OTLP will be interesting for Finance department to tract the client interactions, if they buy or rent.

#### Step\_5:

This Invoice contains both, structured and unstructured data. It is probably organized in rows and columns, but we cannot see properly the columns and rows.

Invoice Number	Item	Qty	Description	Price	Subtotal	Recipient address	Sender address	Recipient	Sender	Account Name:	Account NO
2019001	001	01	New video collection Licensing	730 \$	730\$	40 sheila LA Sparks, NV	4826 Norma Avenue Anderson TX	MR Timothy Walker	Oaklanders	Miko Santo	4929 3310 0057 5422