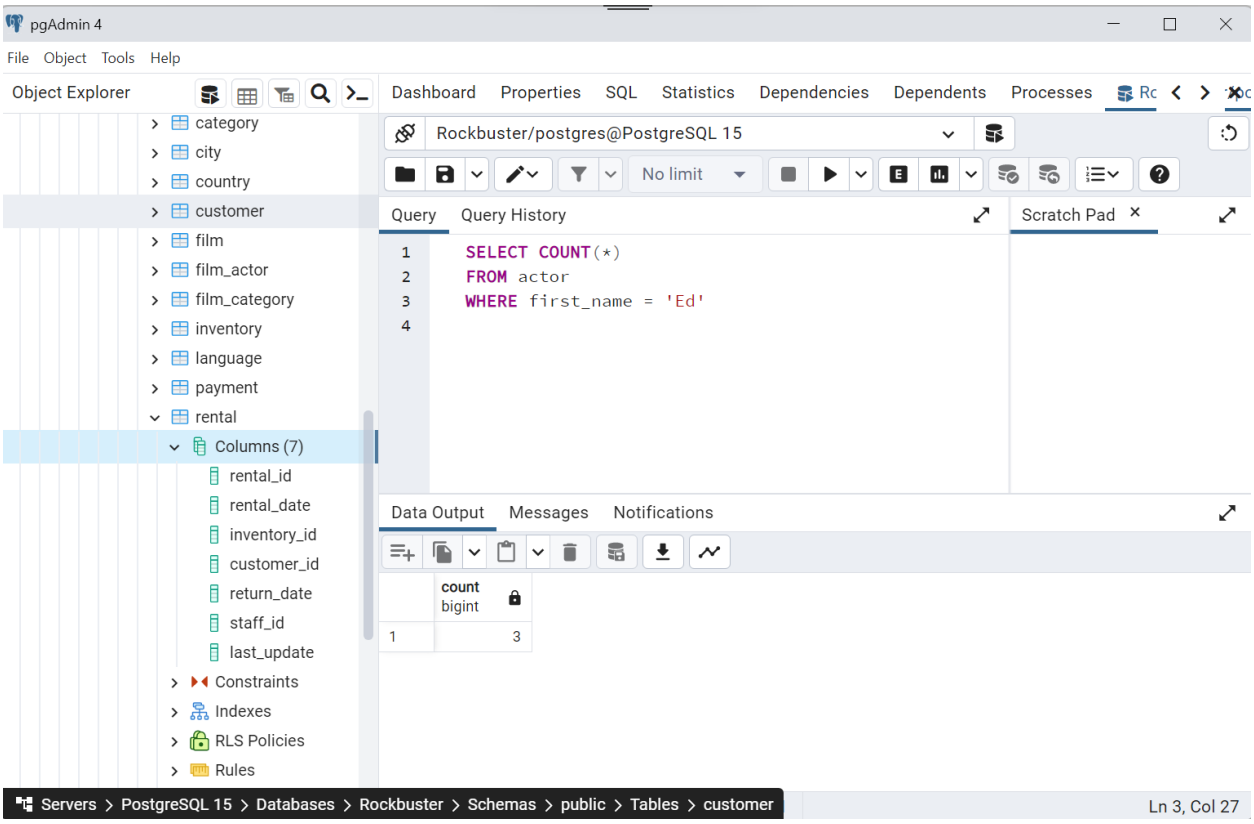
.1 Intro to Relational Databases by Rich Bradley

1. PostgreSQL installed and Achievement 3 project brief downloaded.

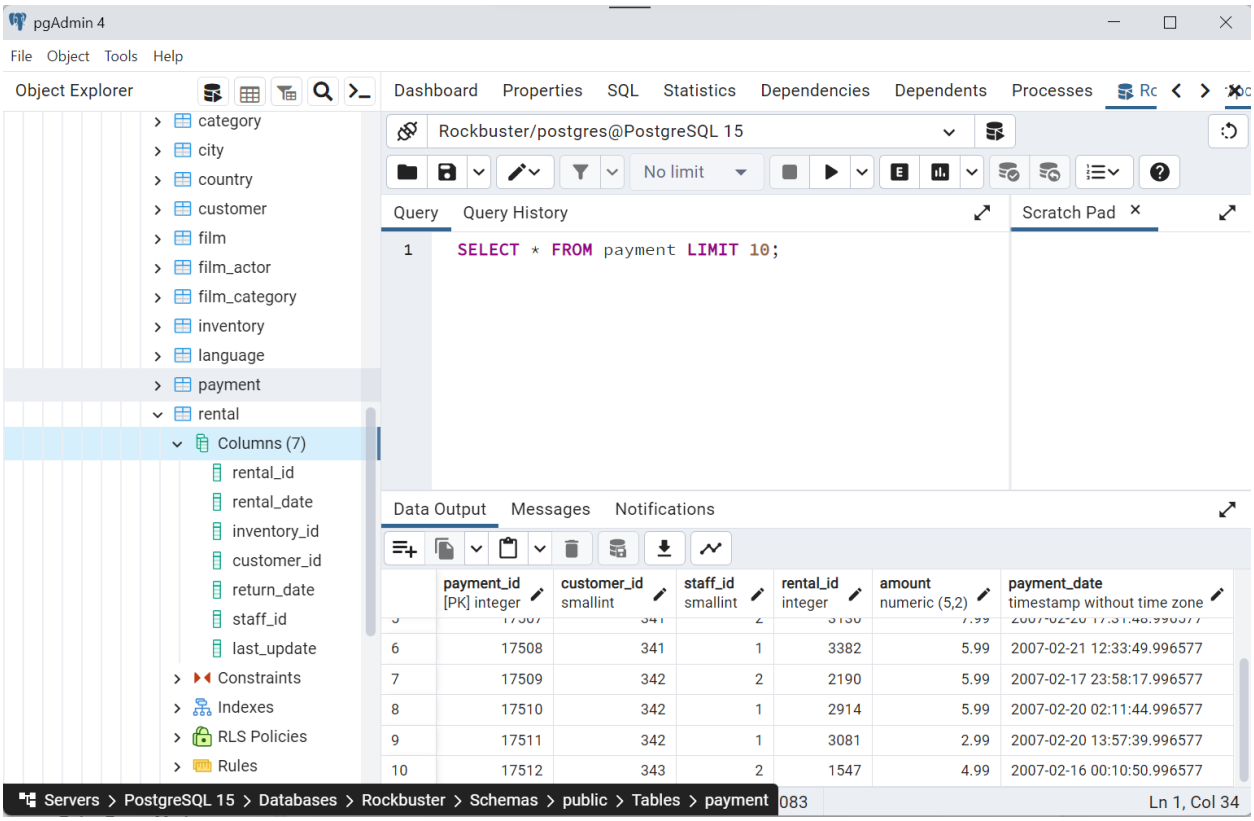
2. Download Rockbuster “actor.csv” file.

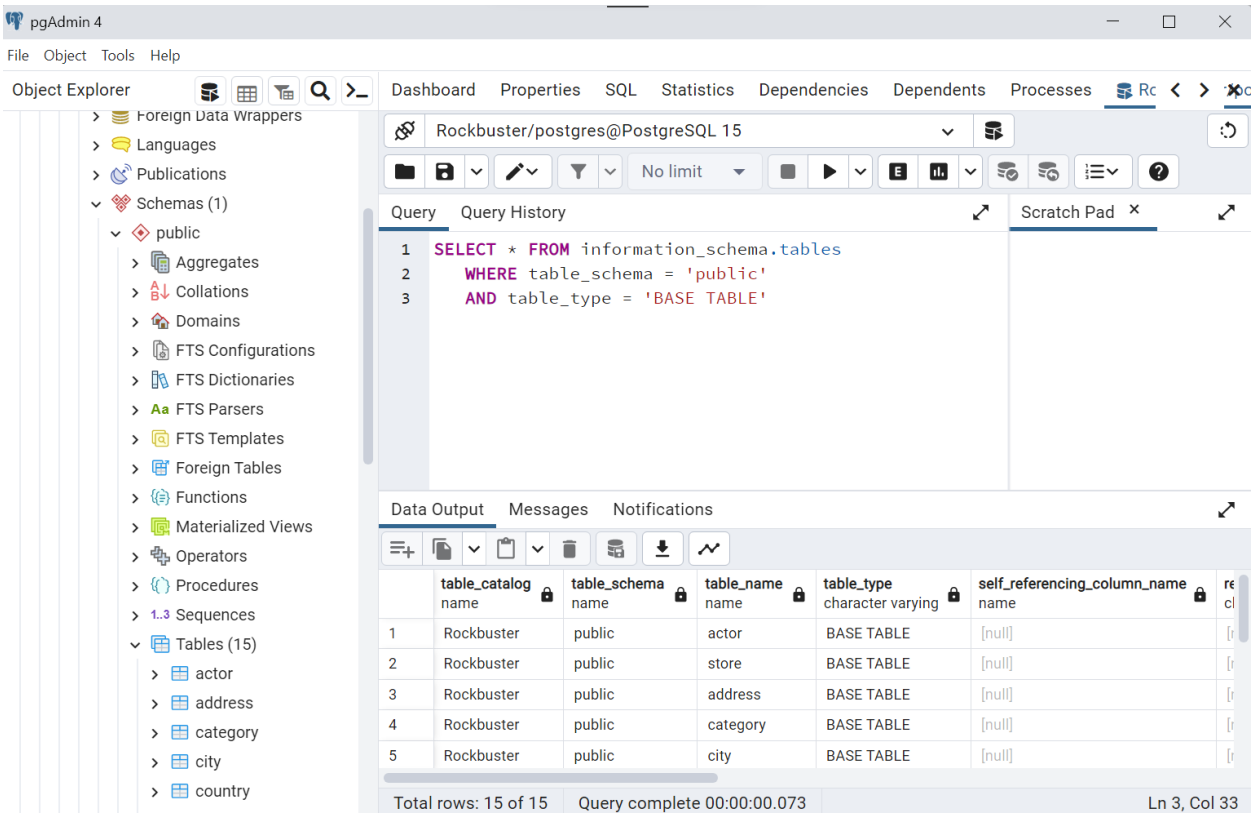
a. In Excel I used the countif function and the formula is =COUNTIF(B2:B201,”Ed”) the answer was 3.

b. Launch pgAdmin4, copy and paste the data output.

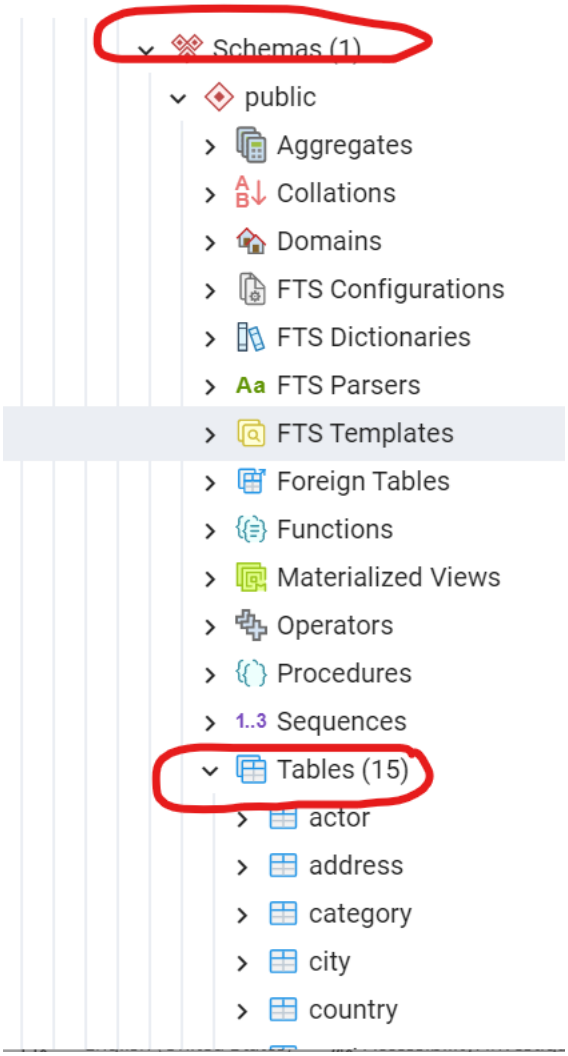


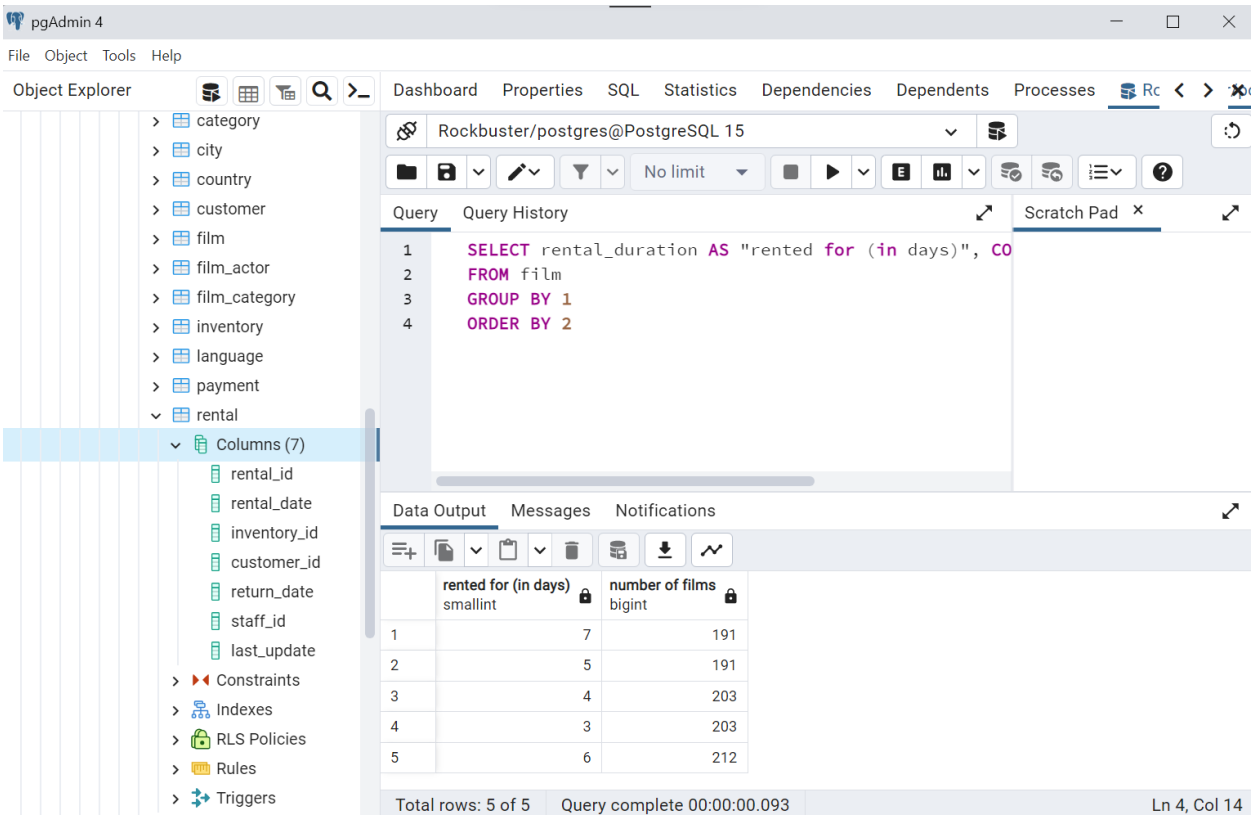
To answer the next set of questions, past the queries provided into the Query Editor in pgAdmin 4. Note down your answers in your running text document


pgAdmin 4
File Object Tools Help
Object Explorer
Dashboard Properties SQL Statistics Dependencies Dependents Processes
Rockbuster/postgres@PostgreSQL 15
No limit
Query Query History
Scratch Pad
1 SELECT * FROM payment LIMIT 10;
Data Output Messages Notifications
payment_id [PK] integer
customer_id smallint
staff_id smallint
rental_id integer
amount numeric (5,2)
payment_date timestamp without time zone
6 17508 341 1 3382 5.99 2007-02-21 12:33:49.996577
7 17509 342 2 2190 5.99 2007-02-17 23:58:17.996577
8 17510 342 1 2914 5.99 2007-02-20 02:11:44.996577
9 17511 342 1 3081 2.99 2007-02-20 13:57:39.996577
10 17512 343 2 1547 4.99 2007-02-16 00:10:50.996577
category
city
country
customer
film
film_actor
film_category
inventory
language
payment
rental
Columns (7)
rental_id
rental_date
inventory_id
customer_id
return_date
staff_id
last_update
Constraints
Indexes
RLS Policies
Rules
Servers > PostgreSQL 15 > Databases > Rockbuster > Schemas > public > Tables > payment
Ln 1, Col 34


pgAdmin 4
File Object Tools Help
Object Explorer
Dashboard Properties SQL Statistics Dependencies Dependents Processes
Rockbuster/postgres@PostgreSQL 15
No limit
Query Query History
Scratch Pad
1 SELECT * FROM information_schema.tables
2 WHERE table_schema = 'public'
3 AND table_type = 'BASE TABLE'
Data Output Messages Notifications
table_catalog name
table_schema name
table_name name
table_type character varying
self_referencing_column_name name
1 Rockbuster public actor BASE TABLE [null]
2 Rockbuster public store BASE TABLE [null]
3 Rockbuster public address BASE TABLE [null]
4 Rockbuster public category BASE TABLE [null]
5 Rockbuster public city BASE TABLE [null]
Foreign Data Wrappers
Languages
Publications
Schemas (1)
public
Aggregates
Collations
Domains
FTS Configurations
FTS Dictionaries
FTS Parsers
FTS Templates
Foreign Tables
Functions
Materialized Views
Operators
Procedures
Sequences
Tables (15)
actor
address
category
city
country
Total rows: 15 of 15
Query complete 00:00:00.073
Ln 3, Col 33

Another way to list all the table names instead of the statement above is to click on the Schemas, then Tables and open the list of table names. See screenshot.





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.

a. OLAP

i. For handling lots of data READ operations

ii. Analytical and data mining system

iii. Used for answering questions like how many units were sold and how many items were left in stock.

b. OLTP

i. For handling lots of data insertion deletion and updating.

ii. Transactional

iii. Used for recording and updating interactions like storing new customer order details or updating order shipment status.

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

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

i. The invoice contains structured data. All the information on this invoice can be organized in tables of rows and columns, easy to manipulate, retrieve relevant information. It is basically can be part of a contact list.

b. Organize and store the information on the invoice in a database, create a table.

Customer

_Name

Bus Name Street_Address City State Invoice # Item Qty Descript Price Acct #

Customer _Name	Bus Name	Street_Address	City	state	invoice	item	qty
Miko Santo	Oaklanders Sound Studio	4826 Norma Avenue	Anderson	TX	2019001	001	01

descript	price	Acct
New Video Collection Licensing	$730.00	4929 3310 0057 5422