

## Intro to Relational Databases

### Step 2

	A	B	C	D	E
1	actor_id	first_name	last_name	last_update	
4	3	Ed	Chase	47:57.6	
138	136	Ed	Mansfield	47:57.6	
180	179	Ed	Guinness	47:57.6	
202					
203					

pgAdmin 4

File Object Tools Help

Browser

Servers (1)

- PostgreSQL 15
  - Databases (2)
    - Rockbuster
      - Casts
      - Catalogs
      - Event Triggers
      - Extensions
      - Foreign Data Wrappers
      - Languages
      - Publications
      - Schemas
      - Subscriptions
      - postgres
      - Login/Group Roles
      - Tablespaces

Dashboard Properties SQL Statistics Dependencies Dependents Processes WHERE first\_name = 'Ed'.sql

Rockbuster/postgres@PostgreSQL 15

No limit

Query Query History

```
1 SELECT COUNT(*)
2 FROM actor
3 WHERE first_name = 'Ed'
4
5 SELECT * FROM actor
6 WHERE first_name = 'Ed';
7
8 SELECT * FROM payment LIMIT 10;
9
10 SELECT * FROM information_schema.tables
11 WHERE table_schema = 'public'
12 AND table_type = 'BASE TABLE';
13
14 SELECT rental_duration , COUNT(*) AS "number of films"
```

Scratch Pad

Data Output Messages Notifications

count	bigint
1	3

Total rows: 1 of 1 Query complete 00:00:00.053 Ln 1, Col 1

# With Full Name

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Rockbuster/postgres@PostgreSQL 15

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```

Data Output Messages Notifications

	actor_id [PK] integer	first_name character varying (45)	last_name character varying (45)	last_update timestamp without time zone
1	3	Ed	Chase	2013-05-26 14:47:57.62
2	136	Ed	Mansfield	2013-05-26 14:47:57.62
3	179	Ed	Guinness	2013-05-26 14:47:57.62

Total rows: 3 of 3 Query complete 00:00:00.077 Ln 5, Col 1

Step 3

Columns names in the payment table











Data Output	Messages	Notifications				
<div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div></div>						
	<div>payment_id</div> <div>[PK] integer</div> <div></div>	<div>customer_id</div> <div>smallint</div> <div></div>	<div>staff_id</div> <div>smallint</div> <div></div>	<div>rental_id</div> <div>integer</div> <div></div>	<div>amount</div> <div>numeric (5,2)</div> <div></div>	<div>payment_date</div> <div>timestamp without time zone</div> <div></div>

Tables available in the Rockbuster database

table_name
name 
actor
store
address
category
city
country
customer
film_actor
film_category
inventory
language
rental
staff
payment
film

How many days are most films rented for?

Lat row, 6 days

Data Output	Messages	Notifications
       		
	<b>rental_duration</b> smallint 	<b>number of films</b> bigint 
1	7	191
2	5	191
3	4	203
4	3	203
5	6	212
Total rows: 5 of 5		Query complete 00:00:00.076

Step 4

OLAP VS OLTP

I found the below link from IBM is useful to clarify the difference between OLAP and OLTP systems, they expressed OLAP as a cube of data with multiple dimensions where you can select from the place that you need while OLTP is like a user's or customers data collecting system to be used by OLAP

<https://www.ibm.com/cloud/blog/olap-vs-oltp>

OLAP we can figure out the trend of particular actor, or to know which city had the highest sales

OLTP collecting information about customers

Step 5

The data is structured since we are able to insert values in a separate row and columns

If its provided as image i think it will be unstructured

Company Details							
Invoice Number	Company Name	Account Number	Payee First Name	Payee Last Name	Street Address	City	State
2019001	Oklanders Sound Studio	4929 3310 0057 5422	Miko	Santo	4826 Norma Avenue	Anderson	TX

Client Details									
Invoice Number	Payors Name	Payors Last Name	Street Address	City	State	Item	Discription	Quantity	Price
2019001	Timothy	Walker	40 Sheila LA	Sparks	NV	001	New Video Collection Licensing	1	730 \$

