William Su

<div align="center">Task 3.1 – Intro to Relational Databases</div>

	A	B		C	D	
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		Guiness	47:57.6	
202						
203						

3 counts of "Ed" in Excel

```
1  SELECT COUNT(*)
2  FROM actor
3  WHERE first_name = 'Ed'
```

Data Output   Messages   Notifications

	count bigint
1	3

3 counts of "Ed" in SQL

I felt it was faster and easier to use SQL because I could just type out what I wanted. When I tried to filter in Excel, I had to either look up "Ed" manually by scrolling down the names in the filter, or I had to deselect names that also had the letters "Ed" in it, like Fred.

List of column names in payment table:

Payment_id, customer_id, staff_id, rental_id, amount, payment_date

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

Actor, store, address, category, city, country, customer, film_actor, film_category, inventory, language, rental, staff, payment, film

Within the pgAdmin 4 console, can you think of another way to list all the table names in the database instead of the SQL statement above?

By expanding the **Schemas** tab on the left side in the **Rockbuster** database, and then expanding the **Tables** tab.

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

Most films are rented for 6 days.

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 system – As this system is mostly used for data being read, a marketing department would be able to gather insights on what movies may be popular and gauging customer satisfaction on the product.

OLTP system – Because this system is used to update large quantities of transactions, this would be used by teams making sales or managing inventories.

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

Structured data. While it is not exactly in the form of a table, there are obvious signs of what category each piece of information belongs to.

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.

Customer

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

Vendor

Merchant Name	Address	City	State	State Abbreviation	Account Holder	Account Number
Oaklanders Sound Studio	4826 Norma Avenue	Anderson	Texas	TX	Miko Santo	4929 3310 0057 5422

Transaction

Invoice Number	Item	Quantity	Description	Price	Currency
2019001	001	01	New Video Collection Licensing	730.00	USD