3.1 - Intro To Relational Databases - Answer Key

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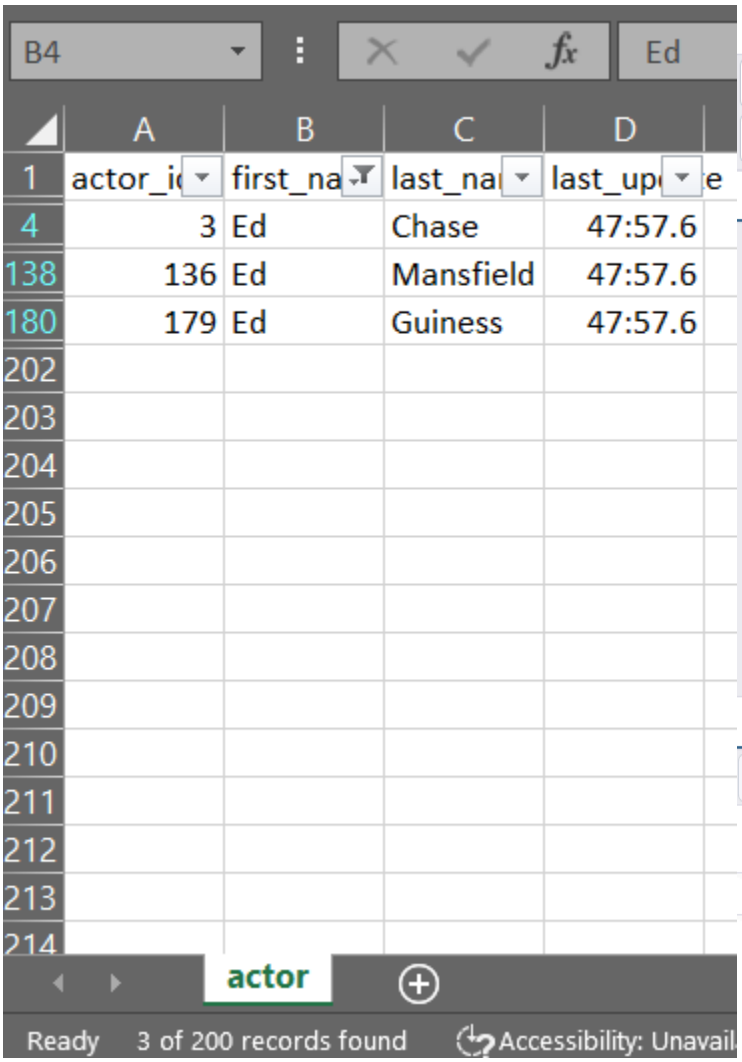
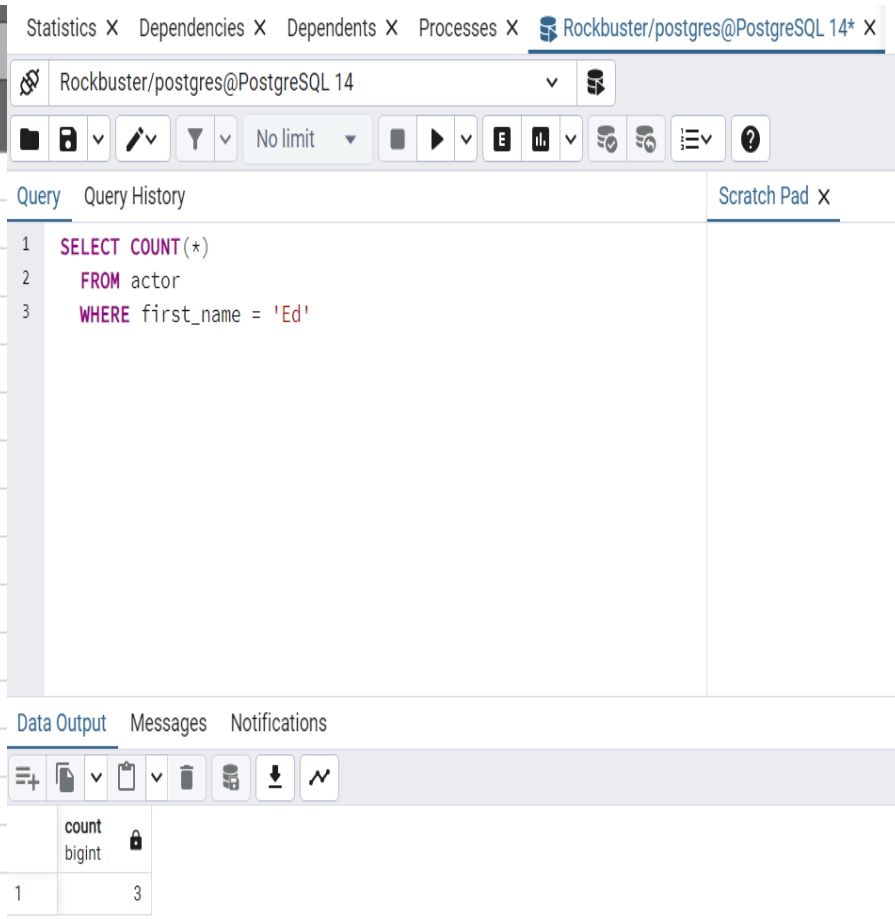
Step 2:

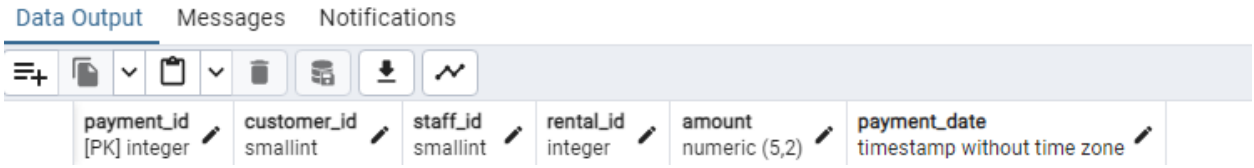
Count Comparison: When using the quarry tool on pgAdmin4 and the filter function on Excel I found that the comparison matched correctly with the count of 3. Please see Screenshots below.





Step 3:

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



B. List the names of the columns in the payment table:

Table_Name:

1. "actor"
2. "store"
3. "address"
4. "category"
5. "city"
6. "country"
7. "customer"
8. "film_actor"
9. "film_category"
10. "inventory"
11. "language"
12. "rental"
13. "staff"
14. "payment"
15. "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?

Under the Rockbuster table icon on the left → Select “schema” under the down tab → under “schema” Folder → List under the folder choose the table to view on Data Output.

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

	Rented (in days”	**“Number of Films”**
1	**7**	**191**
2	**5**	**191**
3	**4**	**203**
4	**3**	**203**
5	**6**	**212**

Step 4: Consider 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 two situations for each type of system.

OLAP: Analyzing Sales Trends: The sales department might want to use an OLAP system to analyze sales trends over time. The sales department would be able to movie rental that are popular during different parts of the year and among different customers in their area. By analyzing this data, they can make informed decisions about which movies to promote, which locations to prioritize, and utilize which promotions to when that would be most profitable to the company.

OLTP: Processing Rental Transactions: At the store level, an OLTP system would be used to handle day-to-day rental transactions. This information base, on a store level will ensure that each store is stocked in the most popular rental and merchandise for the area that they are located in. Making sure that when a movie is returned or rented out the staff can assist with finding similar inventory or find the movie rental if it is returned in the system.

Step 5:

1. Does the invoice contain structured or unstructured data?

   The information is presented in an unstructured format since it is giving information about different aspects without the bounds of set rows or columns for the information. Instead it's giving a few different informative pieces about location, stock, invoice information, and account information.

Here is an example of how I would restructure the information to make it more clear:

Company Information	Invoice Number:	Account Number:	Company Name:	Account Name:	Company Address:	Item Number:	Qty Amount:	Item Description:	Item Price:	Account Number:
	2019001	4919 3310 0057 5422	Oaklanders Sound Studio	Miko Santo	4826 Norma Avenue Anderson, TX	001	1	New Video Collection Licensing	$750	49293310 00575422
Customer Information	**Invoice Number:**	**Customer Name:**	**Customer Address:**							
	2019001	Timothy Walker	401 Sheila LA Sparks, NV							