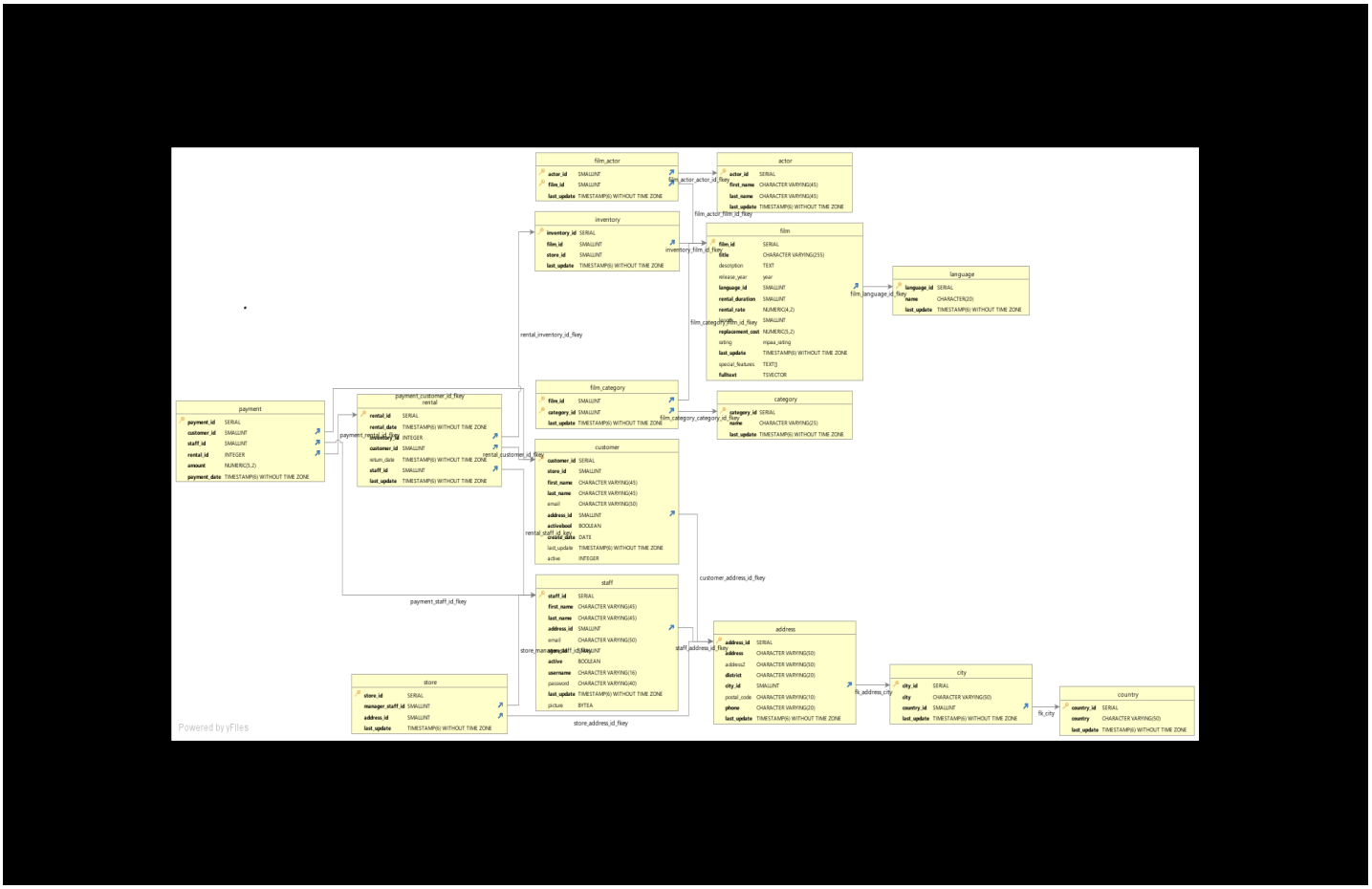
ANSWERS 3.2

- Download and install DbVisualizer or Lucidchart (if you haven't already done so).
    - DbVisualizer downloaded
- Extract the ERD from the Rockbuster database and save it as an image (PNG or JPEG) using the instructions in the Exercise. Extracted as PNG document used MS Paint to open and copy into word.
- Copy-paste the ERD into your answers document.



Step 3. Create the first draft of a data dictionary:

- Take a moment to examine your ERD. Does the Rockbuster database have a snowflake schema or a star schema? Write a brief explanation for your answer. Snowflake, for there is no central part which all segments are connected. Fact table has multiple branches that are connected to multiple tables, creating subdimension.
- List all the fact tables and all the dimension tables in the schema. For each table, list every column and its data type, and write a brief description of the column. To get an idea of what this should look like, check out these example fact and dimension tables.

Fact table

Table Name: Rental

Columns	Data Type	Description
Rental_id	Serial	Id assigned to each movie rental
Rental_date	Timestamp (6) without time zone	Date of rental
Inventory_id	Integer	Id assigned for inventory
Customer_id	Smallint	
Return_date	Timestamp (6) without time zone	Date of return
Staff_id	Smallint	Id assigned to staff
Last_update	Timestamp (6) without time zone	Last updated date

Dimension Table

Table Name: Inventory

Columns	Data Type	Description
Inventory_id	Serial	Id assigned for inventory
Film_id	Int2	Id assigned for film
Store_id	Int2	Id assigned for stor
Last_update	timestamp	Last updated date

Table Name: Customer

Columns	Data Type	Description
Customer_id	Serial	Id assigned for customer
Store_id	Int2	Id assigned for store
First_name	Varchar	Customer first name
Last_name	Varchar	Customer last name
Email	Varchar	Customer email
Address_id	Int2	Customer address
activebool	Bool	Active Status of customer
Create_date	Date	Creation date
Last_update	Timestamp	Last updated date/time
Active	Int4	Status of customer

Table Name: Staff

Columns	Data Type	Description
Staff_id	serial	Id assigned for staff
first_name	Varchar	Staff first name
Last_name	Varchar	Staff last name
Address_id	Int2	Staff address
Email	Varchar	Staff email
Store_id	Int2	Id assigned to store
active	Bool	Status of staff
Username	Varchar	Staff username
Password	Varchar	Staff password
Last_update	Timestamp	Last updated date/time
Picture	ByTea	Picture of staff

Table Name: Payment

Columns	Data Type	Description
Payment_id	Serial	Id assigned for payment
Customer_id	Int2	Id assigned for customer
Staff_id	Int2	Id assigned for staff
Rental_id	Int4	Id assigned for renta
Amount	Numeric	Payment amount
Payment_date	Timestamp	Payment last updated date/time

Table Name: Store

Columns	Data Type	Description
Store_id	Serial	Id assigned for store
Manager_staff_id	Int2	Id assigned for Manager
Address_id	Int2	Store address
Last_update	Timestamp	Last updated date/time

Table Name: Language

Columns	Data Type	Description
Language_id	Serial	Id assigned for language
Name	Bpchar	Name of Language
Last_update	timestamp	Last updated date/time

Table Name: Film Category

Columns	Data Type	Description
Film_id	Int2	Id assigned for film
Category_id	Int2	Id assigned for category

Last_update	Timestamp	Last updated date/time

Table Name: Film Actor

Columns	Data Type	Description
Actor_id	Int2	Id assigned to actor
Film_id	Int2	Id assigned to fim
Last_udate	Timestamp	Last updated date/time

Table Name: Film

Columns	Data Type	Description
Film_id	Serial	Id assigned to film
Title	Varchar	Title of film
Description	Text	Description of film
Release_year	Year	File release year
Language_id	Int2	Id assigned to language
Renteal_duration	Int2	Length of rental
Rental_rate	Numeric	Rate of rental
Length	Int2	Duration of film
Replacement_cost	Numeric	Cost of film to replace
Rating	Mpaa_rating	Rating of film
Last_update	Timestamp	Last updated date/time
Special_features	Text	Special features available (HD, subtitles, language)
fulltext	tsvector	Keywords, metatags

Table Name: Country

Columns	Data Type	Description
Country_id	Serial	Id assigned to country
Country	varchar	Name of country
Last_update	timestamp	Last updated date/time

Table Name: City

Columns	Data Type	Description
City_id	Serial	Id assigned to city
City	varchar	Name of City
Country_id	Int2	Id assigned to country
Last_update	timestamp	Last updated date/time

Table Name: Category

Columns	Data Type	Description
Category_id	serial	Id assigned to category

Name	varchar	Name of category
Last_update	timestamp	Last updated date/time

Table Name: Address

Columns	Data Type	Description
Address_id	Serial	Id assigned to address
Address	Varchar	Address
Address2	Varchar	Address
District	Varchar	District of address
City_id	Int2	City
Postal_code	Varchar	Postal code
Phone	Varchar	Phone number
Last_update	timestamp	Last updated date/time

Table Name: Actor

Columns	Data Type	Description
Actor_id	Serial	Id assigned to actor
First_name	Varchar	First Name
Last_name	Varchar	Last Name
Last_update	Timestamp	Last updated date/time

- If a column name doesn't tell you enough to write a description, you can also view the tables in pgAdmin 4. The SQL syntax for selecting a table is SELECT * FROM table_name. So SELECT * FROM film would return the film table, for example.

Step 4

Now that your data dictionary and ERD are ready to use, your manager has given you a list of business questions to answer. Use your data dictionary to figure out which tables you'd need to answer the questions below:

Which actors brought the most revenue?

- Film_actor, Film and Rental

What language are the majority of movies in the collection?

- Film and Language