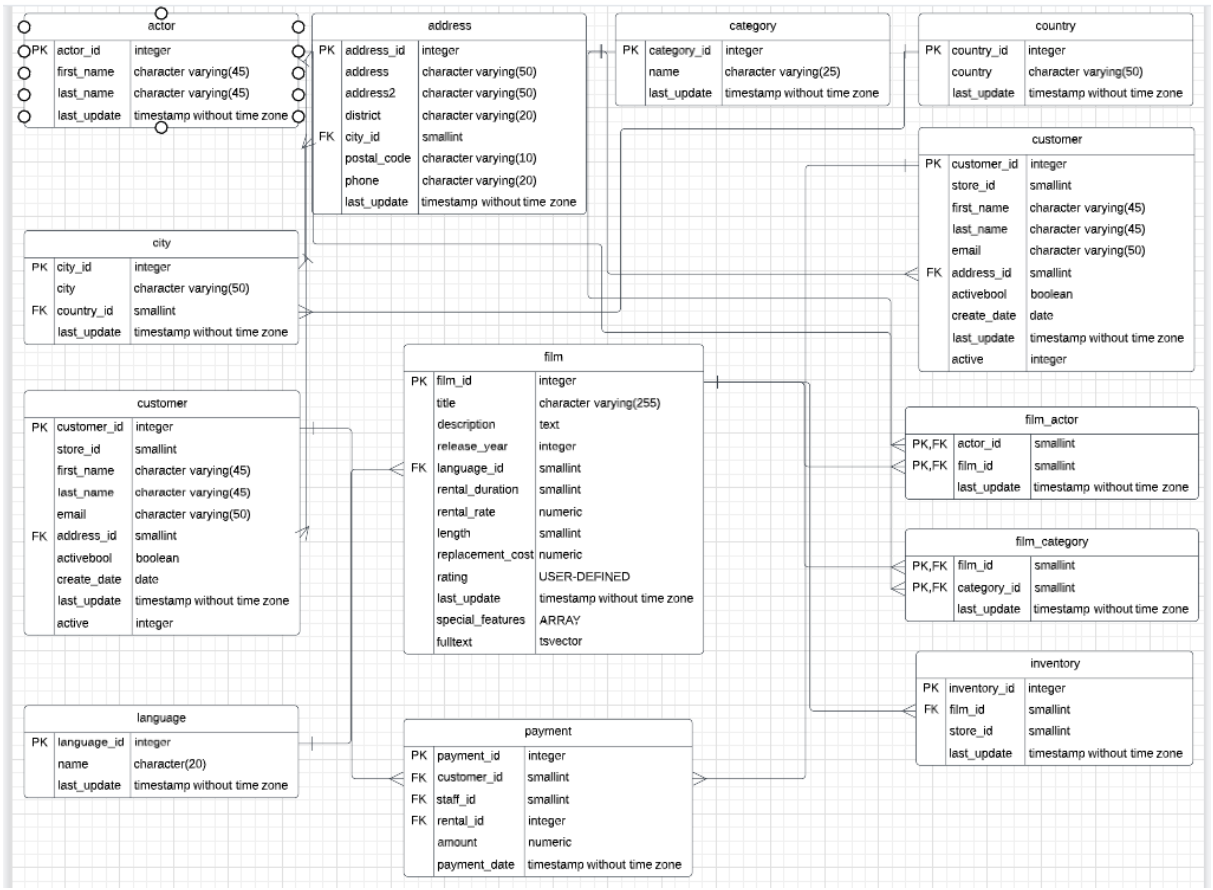
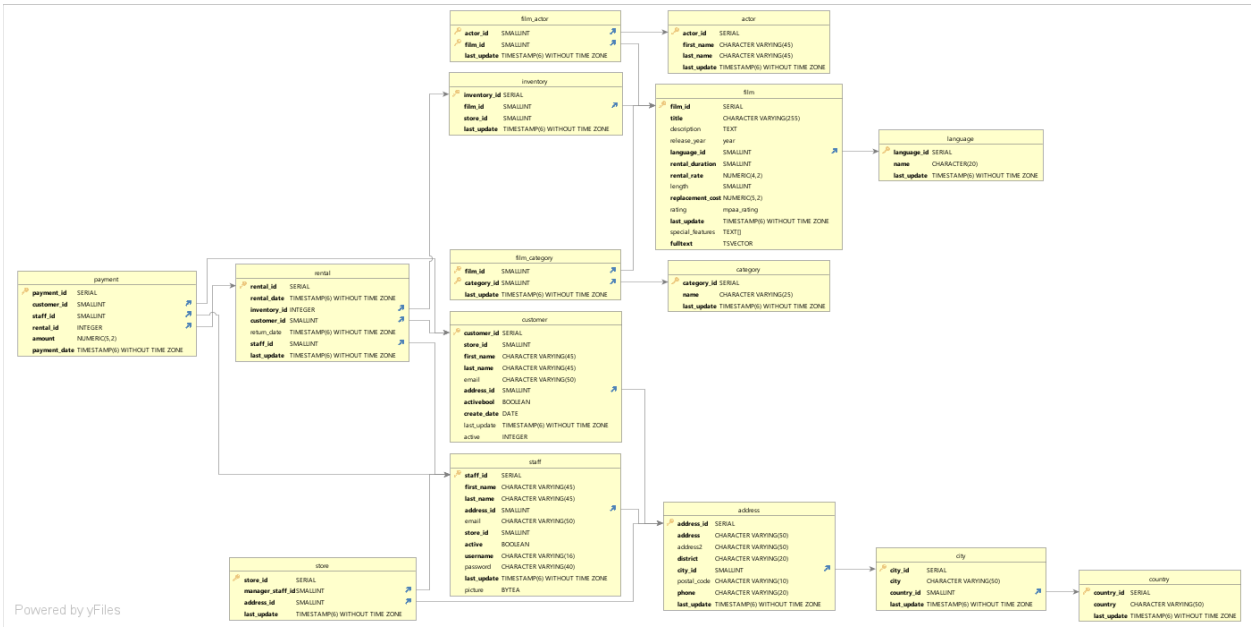
## Step 2. Extract the ERD:

Lucidchart:




DBvisualizer:



## 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.

A/ It has a snowflake schema because from the fact table

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.

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.

Fact table

| | Payment | |
|---|---|---|
| Columns | Data type | Description |
| payment_id | SERIAL | Payme unique identification number |
| costumer_id | SMALLINT | Unique identication number of the custumer that did the payment |
| staff_id | SMALLINT | Unique identification number of staff member that did the transaction |
| rental_id | INTEGER | Unique identification number of each rental transaction |
| amount | NUMERIC(5,2) | Price paid for the rental |
| payment_date | TIMESTAMP(6) WITHOUT TIME ZONE | Date when the payment was issued |

Dimension table

| | Rental | |
|---|---|---|
| Columns | Data type | Description |
| rental_id | SERIAL | Rental transaction unique identification number |
| rental_date | TIMESTAMP(6) WITHOUT TIME ZONE | Date when the rental was made |
| inventory_id | INTERGER | Unique identification number of the inventory rented |
| costumer_id | SMALLINT | Costumer unique identification number that did the transaction |
| return_date | TIMESTAMP(6) WITHOUT TIME ZONE | Date when the movie was returned to the store |
| staff_id | SMALLINT | Staff member identification number that did the transaction |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Film_category | |
|---|---|---|
| Columns | Data type | Description |
| film_id | SERIAL | Film unique identification number |
| category_id | CHARACTER VARYING(25) | Movie category identification number |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Category | |
|---|---|---|
| Columns | Data type | Description |
| category_id | SERIAL | Movie category identification number |
| name | SMALLINT | Category name |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Film_actor | |
|---|---|---|
| Columns | Data type | Descrption |
| actor_id | SMALLINT | Actor unique identification number |
| film_id | SMALLINT | Film unique identification number |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Inventory | |
|---|---|---|
| Columns | Data type | Description |
| inventory_id | SERIAL | Invetory unique identification number |
| film_id | SMALLINT | Film unique identification number |
| store_id | SMALLINT | Store unique identification number |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Actor | |
|---|---|---|
| Columns | Data type | Description |
| actor_id | SERIAL | actor unique identification number |
| first_name | CHARACTER VARYING (45) | Actor first name |
| last_name | CHARACTER VARYING (45) | Actor last name |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Film | |
|---|---|---|
| Columns | Data type | Description |
| film_id | SERIAL | Film unique identification number |
| title | CHARACTER VARYING(25) | Film title |
| description | TEXT | Film short description |
| release_year | year | Film release year |
| language_id | SMALLINT | Language unique identification number that the films is dub |
| rental_duration | SMALLINT | Duration of the rental of the film |
| rental_rate | NUMERIC(4,2) | How often the film is rented |
| length | SMALLINT | Lenght of the movie |
| replacement_cost | NUMERIC(5,2) | Cost of the film to the store |
| rating | mpaa_rating | Movie rating |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |
| special_feature | TEXT | Any special features in the film |
| fulltext | TSVECTOR | Keywords associated with film |

| | Languaje | |
|---|---|---|
| Columns | Data type | Description |
| language_id | SERIAL | Language unique identification number that the films is dub |
| name | CHARACTER(20) | Name of the language |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Customer | |
|---|---|---|
| Columns | Data type | Descripton |
| customer_id | SERIAL | Customer unique identification number |
| store_id | SMALLINT | Store unique identification number |
| first_name | CHARACTER VARYING(45) | Customers first name |
| last_name | CHARACTER VARYING(45) | Customers last name |
| email | CHARACTER VARYING(50) | Costumers email |
| address_id | SMALLINT | Address unique identification number |
| activebool | BOOLEAN | Wheter the customer is active or not |
| create_date | DATE | Date that the customer was added to the system |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |
| active | INTEGER | Membership status |

| | Staff | |
|---|---|---|
| Columns | Data type | Description |
| staff_id | SERIAL | Staff member unique identification number |
| first_name | CHARACTER VARYING(45) | Staff members first name |
| last_name | CHARACTER VARYING(45) | Staff members last name |
| address_id | SMALLINT | Staff members address unique identification number |
| email | CHARACTER VARYING(50) | Staff members email |
| store_id | SMALLINT | Store unique identification number |
| active | BOOLEAN | Wheter or not the staff member is active |
| username | CHARACTER VARYING(16) | Staff members username |
| password | CHARACTER VARYING(40) | Staff members password |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |
| picture | BYTEA | Picture of the staff member |

| | Store | |
|---|---|---|
| Columns | Data type | Description |
| store_id | SERIAL | Store unique identification number |
| manager_staff_id | SMALLINT | Staff manager unique identification number |
| address_id | SMALLINT | Adress unique identification number |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | Address | |
|---|---|---|
| Columns | Data type | Description |
| address_id | SERIAL | Address unique identification number |
| address | CHARACTER VARYING(50) | Store address |
| address2 | CHARACTER VARYING(50) | Secondary store address if applicable |
| district | CHARACTER VARYING(20) | Store disctrict |
| city_id | SMALLINT | City unique identification number where the store is located |
| postal_code | CHARACTER VARYING(10) | Spotal code of the store location |
| phone | CHARACTER VARYING(20) | Store phone number |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | City | |
|---|---|---|
| Columns | Data type | Description |
| city_id | SERIAL | city unique identification number |
| city | CHARACTER VARYING(50) | City where the store is located |
| country_id | SMALLINT | Contry unique identification number where the store is located |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

| | County | |
|---|---|---|
| Columns | Data type | Description |
| country_id | SERIAL | Country unique identification number where the store is located |
| country | CHARACTER VARYING(50) | Country where the store is located |
| last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update of the data entry |

## Step 4. Find information:

Which actors brought Rockbuster the most revenue?

A/ I would use the film table to check the rental ratio of the movies and check the movies with the highest and what actor is in them

What language are the majority of movies in the collection?

A/ I would us ethe film table and the and the language table to get this information