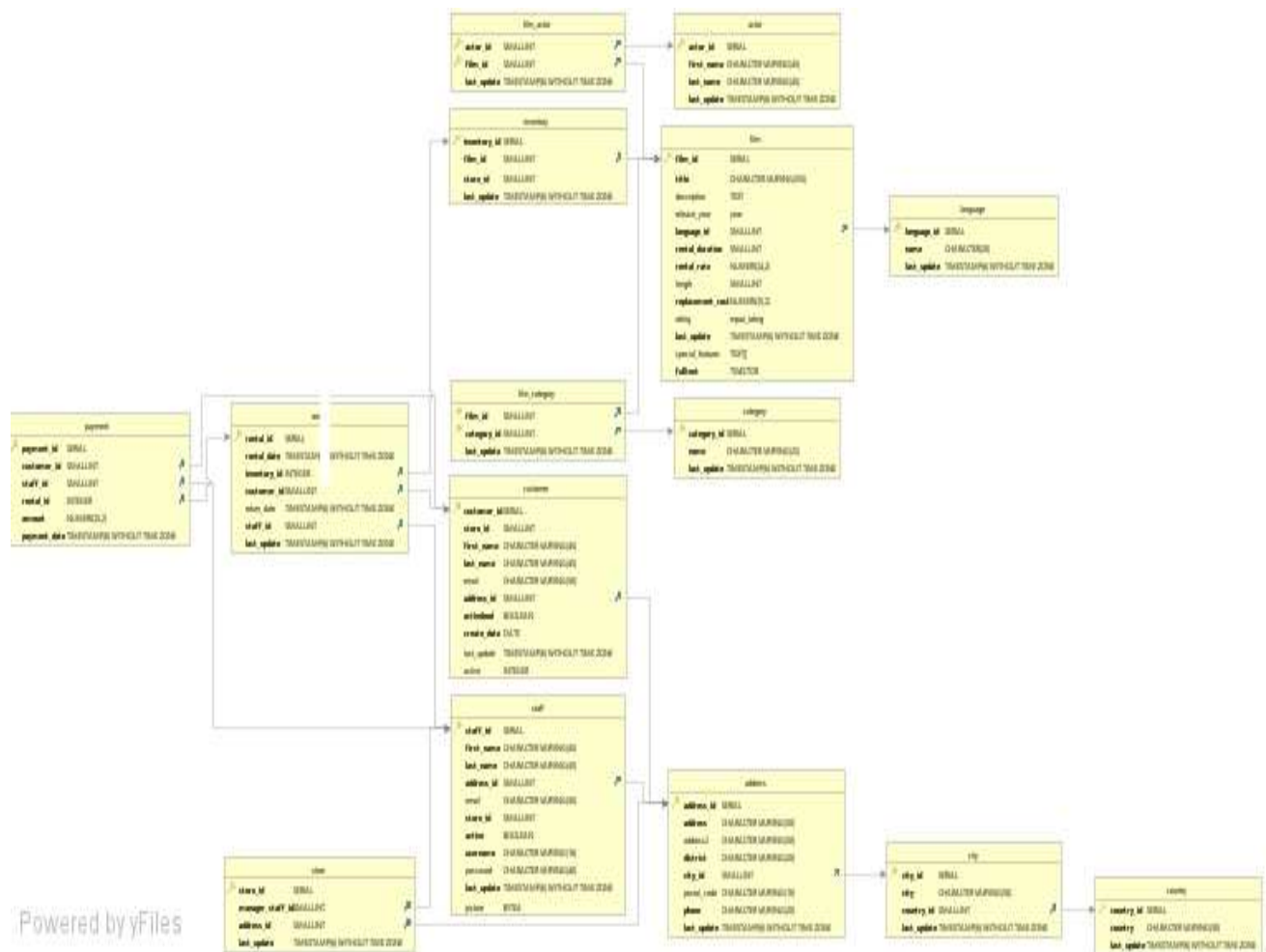


## 3.2: Data Storage & Structure

Step 2. Extract the ERD:



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.

The Rockbuster database has a snowflake schema. The main table is surrounded by a lot of sub-division tables and is arranged in a shape of Snowflake.

- 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

- **Table Name: Rental**

Rental_id	Serial	The unique id assigned to each movie rental
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	The date and time of when it was rented out
inventory_id	Integer	The date and time of when it was rented out
customer_id	SMALLINT	Customer id to whom the movie was issued
return_date	TIMESTAMP(6) WITHOUT TIME ZONE	The date and time of return
staff_id	SMALLINT	The id assigned to each staff
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

- **Table Name: Inventory**

inventory_id	SERIAL	The id assigned for record keeping
film_id	SMALLINT	The unique id assigned to each movie
film_id	SMALLINT	The unique id assigned to each store
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

- **Table Name: Customer**

customer_id	SERIAL	
store_id	SMALLINT	
first_name	CHARACTER VARYING(45)	
last_name	CHARACTER VARYING(45)	
email	SMALLINT	
address_id	SMALLINT	
activebool	BOOLEAN	
create_date	DATE	
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	
active	INTEGER	

- **Table Name: Staff**

staff_id	SERIAL	The id assigned to each staff
first_name	CHARACTER VARYING(45)	First name of staff
last_name	CHARACTER VARYING(45)	Last name of staff
address_id	SMALLINT	Postal address of staff
email	CHARACTER VARYING(50)	Email address of staff
store_id	SMALLINT	The unique id assigned to each store
active	BOOLEAN	Status whether customer is active or not
username	CHARACTER VARYING(16)	Username of staff
password	CHARACTER VARYING(40)	Password of staff
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status
picture	BYTEA	Picture of staff

- **Table Name: Payment**

payment_id	SERIAL	The id assigned for record keeping
customer_id	SMALLINT	Customer id to whom the movie was issued
staff_id	SMALLINT	The unique id assigned to each store
rental_id	INTEGER	The unique id assigned to each movie rental
amount	NUMERIC(5,2)	The amount paid by customer
payment_date	NUMERIC(5,2)	Time of payment

**TABLE NAME : STORE**

store_id	SERIAL	Postal address of store
manager_staff_id	SMALLINT	Postal address of store
manager_staff_id	SMALLINT	Postal address of store
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: Film Category**

film_id	SMALLINT	The unique id assigned to each movie
category_id	SMALLINT	The unique id assigned to each movie categor
last_update	SMALLINT	Time of last updated status

**Table Name: Film Actor**

actor_id	SMALLINT	The unique id assigned to an actor
film_id	SMALLINT	The unique id assigned for each film
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: Actor**

actor_id	SERIAL	The unique id assigned to an actor
first_name	CHARACTER VARYING(45)	First name of actor
last_name	CHARACTER VARYING(45)	Last name of actor
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: Film**

film_id	SERIAL	The unique id assigned to each movie
title	CHARACTER VARYING(255)	Title of the movie
description	TEXT	What is the movie about
release_year	year	Year of release
language_id	SMALLINT	ID assigned to language(s) movie is available in
rental_duration	SMALLINT	Length of time for which movie is on rent
rental_rate	NUMERIC(4,2)	Movie rating
length	SMALLINT	Movie rating
replacement_cost	NUMERIC(5,2)	Cost of replacement in the case of loss or theft
rating	mpaa-rating	Movie rating
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status
special_features	TEXT	Time of last updated status If there are any special features available (HD, subtitles etc)
fulltext	TSVECTOR	Key words

**Table Name: Category**

category_id	SERIAL	The unique id assigned to each movie category
name	CHARACTER VARYING(25)	Name of category
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: Address**

address_id	SERIAL	Postal address of store
address	CHARACTER VARYING(50)	Postal address of store
address2	CHARACTER VARYING(50)	Postal address of store
district	CHARACTER VARYING(20)	Time of last updated status
city_id	SMALLINT	City
postal_code	CHARACTER VARYING(10)	Postal Code
Phone	CHARACTER VARYING(20)	Phone number
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: Language**

language_id	SERIAL	ID assigned to language(s) movie is available in
name	CHARACTER(20)	Name of language
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: City**

city_id	SERIAL	Id assigned to City
name	SMALLINT	Name of City
country_id	CHARACTER VARYING(50)	Country code
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Table Name: Country**

country_id	SERIAL	Country code
country	CHARACTER VARYING(50)	Name of Country
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last updated status

**Step 4. Find information:**

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 Rockbuster the most revenue?  
Film\_actor, Film, Rental
- What language are the majority of movies in the collection?  
Film and Language.