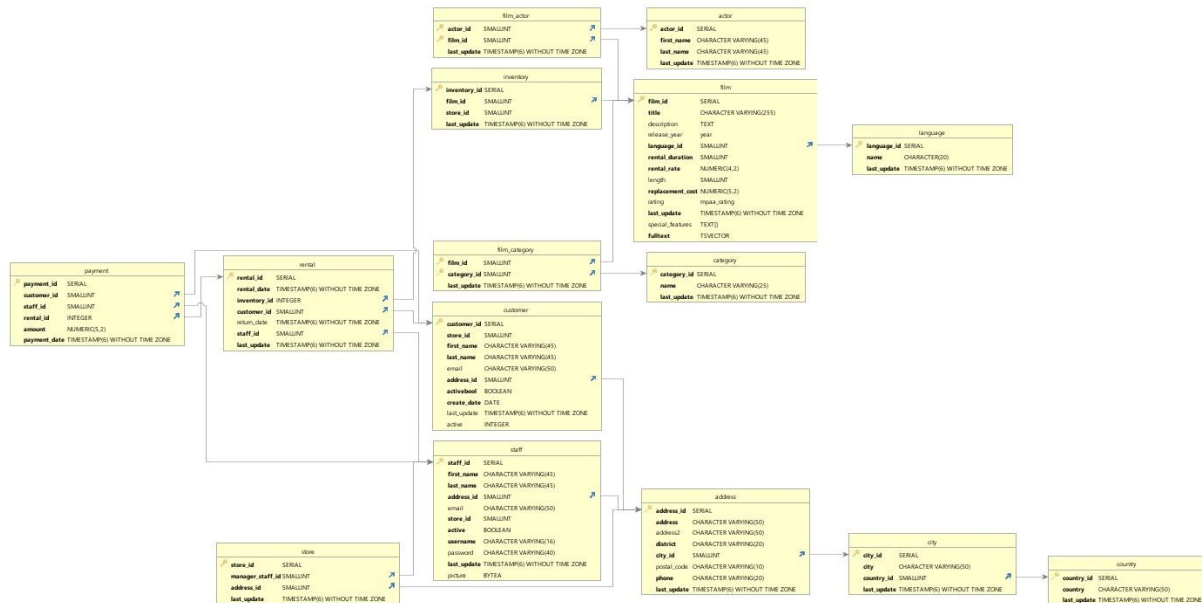Step 2

Step 3

It has a snowflake schema because there are multiple dimensions and sub-dimensions

Fact Tables

rental		
Column	**Data Type**	**Description**
rental_id	SERIAL	Number assigned to rental
rental_date	TIMESTAMP(6) WITHOUT TIMEZONE	Date of rental
inventory_id	INTEGER	Number assigned to item
customer_id	SMALLINT	Number assigned to customer
return_date	TIMESTAMP(6) WITHOUT TIMEZONE	Date rental was returned
staff_id	SMALLINT	Number assigned to employee checking out customer
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

Dimension Tables

payment		
Column	**Data Type**	**Description**
payment_id	SERIAL	Number assigned to payment

customer_id	SMALLINT	Number assigned to customer
staff_id	SMALLINT	Number assigned to employee checking out customer
rental_id	INTEGER	Number assigned to rental
amount	NUMERIC(5,2)	Amount paid
payment_date	TIMESTAMP(6) WITHOUT TIMEZONE	Date of payment

store		
Column	**Data Type**	**Description**
store_id	SERIAL	Number assigned to store
manager_staff_id	SMALLINT	Number assigned to store manager
address_id	SMALLINT	Number assigned to store address
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

film_actor		
Column	**Data Type**	**Description**
actor_id	SMALLINT	Number assigned to actor
film_id	SMALLINT	Number assigned to film
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

inventory		
Column	**Data Type**	**Description**
inventory_id	SERIAL	Number assigned to item
film_id	SMALLINT	Number assigned to film
store_id	SMALLINT	Number assigned to store
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

film_category		
Column	**Data Type**	**Description**
film_id	SMALLINT	Number assigned to film
category_id	SMALLINT	Number assigned to genre
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

customer		
Column	**Data Type**	**Description**

customer_id	SERIAL	Number assigned to customer
store_id	SMALLINT	Number assigned to store
first_name	CHARACTERVARYING(45)	First name of customer
last_name	CHARACTERVARYING(45)	Last name of customer
email	CHARACTERVARYING(50)	E-mail address of customer
address_id	SMALLINT	Number assigned to customer's address
activebool	BOOLEAN	Is customer active?
create_date	DATE	Date entry was created
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated
active	INTEGER	Is customer active?

staff		
Column	**Data Type**	**Description**
staff_id	SERIAL	Number assigned to employee
first_name	CHARACTERVARYING(45)	First name of employee
last_name	CHARACTERVARYING(45)	Last name of employee
address_id	SMALLINT	Number assigned to employee's address
email	CHARACTERVARYING(50)	E-mail address of employee
store_id	SMALLINT	Number assigned to store
active	BOOLEAN	Is employee active?
username	CHARACTERVARYING(16)	Username of employee
password	CHARACTERVARYING(40)	Password of employee
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated
picture	BYTEA	Picture of employee

actor		
Column	**Data Type**	**Description**
actor_id	SERIAL	Number assigned to actor
first_name	CHARACTERVARYING(45)	First name of actor
last_name	CHARACTERVARYING(45)	Last name of actor
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

film		
Column	**Data Type**	**Description**
film_id	SERIAL	Number assigned to film
title	CHARACTERVARYING(255)	Title of film
description	TEXT	Description of film
release_year	year	Release year of film

language_id	SMALLINT	Number assigned to language of film
rental_duration	SMALLINT	Length of film rental
rental_rate	NUMERIC(4,2)	Price of film rental
length	SMALLINT	Length of film
replacement_cost	NUMERIC(5,2)	Cost to replace film
rating	mpaa_rating	Film rating
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated
special_features	TEXT[]	Special features included with film
fulltext	TSVECTOR	Keywords associated with film

category

Column	Data Type	Description
category_id	SERIAL	Number assigned to genre
name	CHARACTERVARYING(25)	Name of genre
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

address

Column	Data Type	Description
address_id	SERIAL	Number assigned to address
address	CHARACTERVARYING(50)	Street address
address2	CHARACTERVARYING(50)	Supplemental street address
district	CHARACTERVARYING(20)	District
city_id	SMALLINT	Number assigned to city
postal_code	CHARACTERVARYING(10)	Postal code
phone	CHARACTERVARYING(20)	Phone number
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

language

Column	Data Type	Description
language_id	SERIAL	Number assigned to language
name	CHARACTER(20)	Name of language
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

city

Column	Data Type	Description
city_id	SERIAL	Number assigned to city
city	CHARACTERVARYING(50)	Name of city

country_id	SMALLINT	Number assigned to country
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

country		
Column	**Data Type**	**Description**
country_id	SERIAL	Number assigned to country
country	CHARACTERVARYING(50)	Name of country
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	Date entry was last updated

Step 4

Which actors brought Rockbuster the most revenue? Tables: actor, film, film_actor, rental

What language are the majority of movies in the collection? Tables: language, film