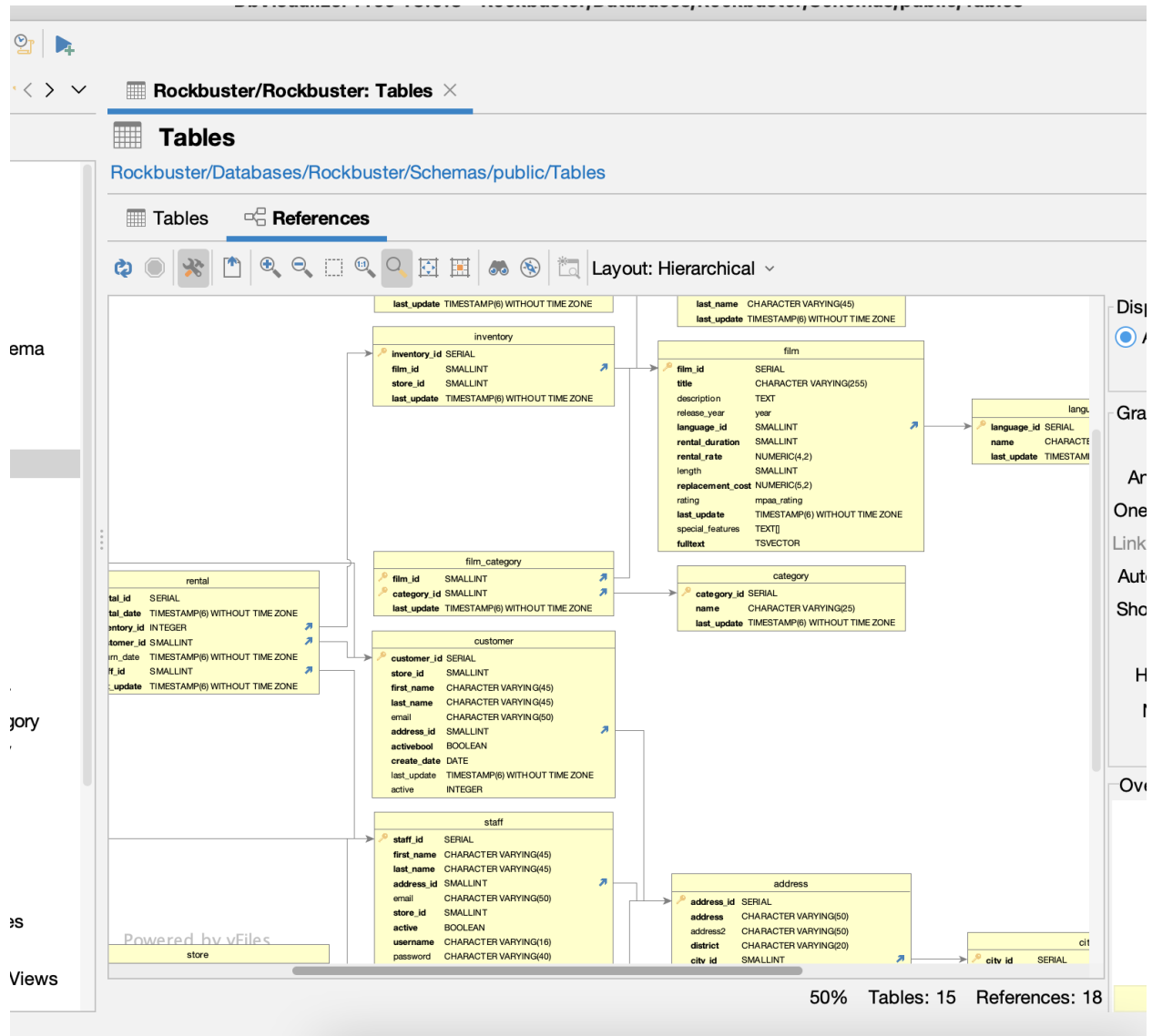## 3.2 - Data Storage and Structure

Step One:

Step Two:

1. The ERD has a snowflake schema. There are multiple dimensions and subdimensions.

Fact Tables:

Payment		
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 TIME ZONE	Date of payment

rental		
rental_id	SERIAL	Number assigned to rental
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of rental
inventory_id	INTEGER	Number assigned to item
customer_id	SMALLINT	Number assigned to customer
return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date rental returned
Staff_id	SMALLINT	Number assigned to employee checking out customer
Last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry was last updated

store		
store_id	SERIAL	Number assigned to store
manager_staff_id	SMALLINT	Number assigned to manager
address_id	SMALLINT	Number assigned to store address

last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry was last updated

film_actor		
actor_id	SMALLINT	Number assigned to actor
film_id	SMALLINT	Number assigned to film
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry was last updated

inventory		
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 TIME ZONE	Date entry was last updated

film_category		
film_id	SMALLINT	Number assigned to film
category_id	SMALLINT	Number assigned to genre
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry was last updated

customer		
customer_id	SERIAL	Number assigned to customer
store_id	SMALLINT	Number assigned to store

first_name	CHARACTER VARYING(4 5)	First name of customer
last_name	CHARACTER VARYING(4 5)	Last name of customer
email	CHARACTER VARYING(5 0)	Email of customer
address_id	SMALLINT	Number assigned to customers address
activebool	BOOLEAN	Yes or no Active
create_data	DATE	Date entry was created
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry last updated
active	INTEGER	Number assigned to active status

Staff		
staff_id	SERIAL	Number assigned to employee
First_name	CHARACTER VARYING(45)	First name of employee
Last_name	CHARACTER VARYING(45)	Last name of employee
address_id	SMALLINT	Number assigned to employees address
email	CHARACTER VARYING(50)	Email address of employee
store_id	SMALLINT	Number assigned to store
active	CHARACTER VARYING(16)	Active status
username	CHARACTER VARYING(40)	Username of employee
password	TIMESTAMP(6) WITHOUT TIME ZONE	Password of employee
picture	BYTEA	Picture of employee

actor		

actor_id	SERIAL	Number assigned to actor
first_name	CHARACTER VARYING(45)	First name
Last_name	CHARACTER VARYING(45)	Last name
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry updated last

Film		
film_id	SERIAL	Number assigned to film
title	CHARACTER VARYING (225)	Title of film
description	TEXT	Description of film
release_year	year	Year film was released
language_id	SMALLINT	Number assigned to language film
rental_duration	SMALLINT	Length of rental of film
rental_rate	NUMERIC(4,2)	Price of 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 TIME ZONE	Date entry was updated last
special_features	TEXT[]	Description of special features in film
fulltext	TSVECTOR	Keywords of film

category		
category_id	SERIAL	Number assigned to genre catefory
name	CHARACTER VARYING(25)	Name of category

last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry was last updated

language		
language_id	SERIAL	Number assigned to language
name	CHARACTER(20)	Name of language
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry was last updated

City		
city_id	SERIAL	Number assigned to city
city	CHARACTER VARYING(50)	Name of city
country_id	SMALLINT	Number assigned to country
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry updated last

country		
country_id	SERIAL	Number assigned to country
country	CHARACTER VARYING(50)	Name of country
last_updated	TIMESTAMP(6) WITHOUT TIME ZONE	Date entry last updated

Step 4:

We will need tables: film, Film_actor, actor tables

We will need tables: language and film tables