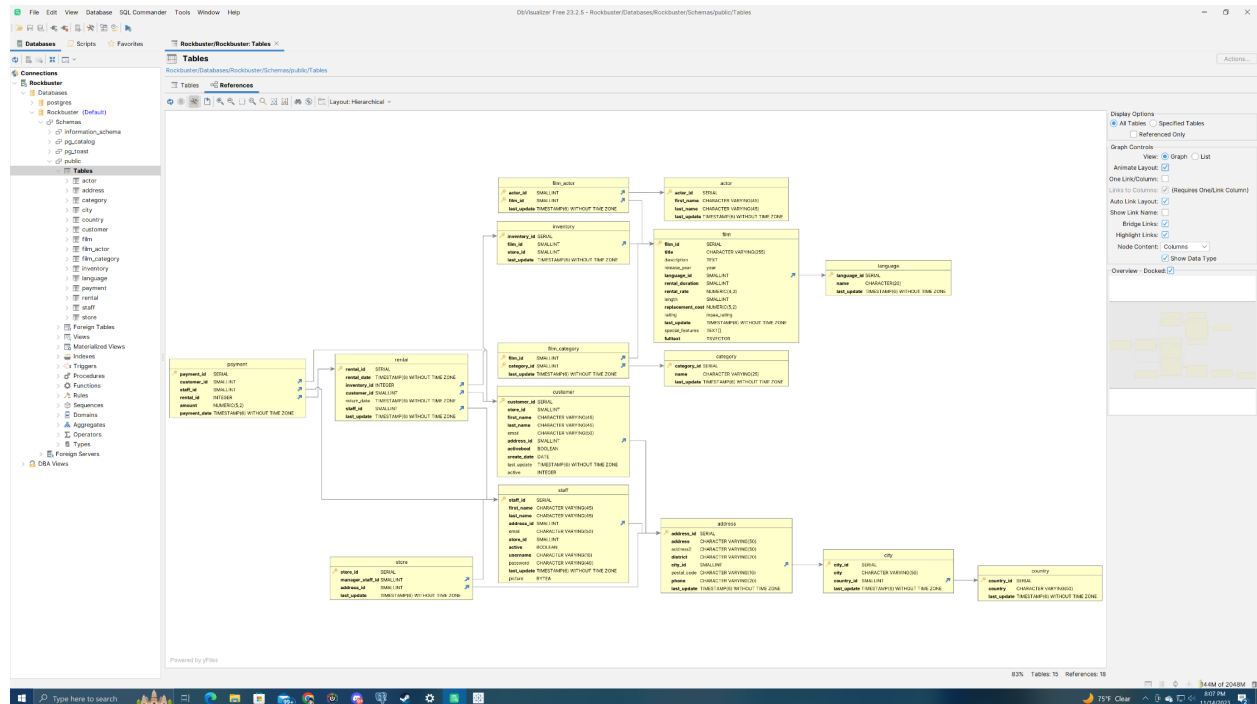


Alexander Coley
11-14-23
Exercise 3.2

Question 2:



Question 3:

A: It is a snowflake schema because of the rental table being surrounded by other variables.

B:

Fact Table
Rental

Columns	Data Type	Description
rental_id	SERIAL	Unique number for rentals.
rental_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the movie was rented.
inventory_id	INTEGER	Unique number assigned to each movie.
customer_id	SMALLINT	Unique number assigned to each customer.
return_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the movie was returned.

staff_id	SMALLINT	Unique number assigned to the staff.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Dimension Tables

Payment

Columns	Data Type	Description
payment_id	SERIAL	Unique number assigned to each payment.
customer_id	SMALLINT	Unique number assigned to each customer.
staff_id	SMALLINT	Unique number assigned to each staff member.
rental_id	INTEGER	Unique number assigned to each movie rental.
amount	NUMERIC(5,2)	Dollar amount of each rental.
payment_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the payment was made.

Store

Columns	Data Type	Description
store_id	SERIAL	Unique number assigned to each store.
manager_staff_id	SMALLINT	Unique number assigned to each manager at each store.
address_id	SMALLINT	Unique # assigned to each store identifying the store's address.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated

Film actor

Columns	Data Type	Description
actor_id	SMALLINT	Unique number assigned to each actor.
film_id	SMALLINT	Unique number assigned to each film.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Inventory

Columns	Data Type	Description
inventory_id	SERIAL	Unique number assigned to each movie in the inventory.
film_id	SMALLINT	Unique number assigned to each film.
store_id	SMALLINT	Unique number assigned to each store.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Film Category

Columns	Data Type	Description
film_id	SMALLINT	Unique number assigned to each film.
category_id	SMALLINT	Unique number assigned to each film category.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Customer

Columns	Data Type	Description
customer_id	SERIAL	Unique number assigned to each customer.
store_id	SMALLINT	Unique number assigned to each store.
first_name	CHARACTER VARYING (45)	First name of each unique customer.
last_name	CHARACTER VARYING (45)	Last name of each unique customer.
email	CHARACTER VARYING (50)	Email address for each unique customer.
address_id	SMALLINT	Unique number identifying the customer's address.
activebool	BOOLEAN	Is the customer active? True or False response.
create_date	DATE	The date the customer's account was created.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.
active	INTEGER	0 or 1 indicates the customer's active status.

Staff

Columns	Data Type	Description
staff_id	SERIAL	Unique number assigned to each staff member.
first_name	CHARACTER VARYING (45)	First name of each unique staff member.
last_name	CHARACTER VARYING (45)	Last name of each unique staff member.
address_id	SMALLINT	Unique number assigned to each staff member identifying their address.

email	CHARACTER VARYING (50)	Email address for each unique staff member.
store_id	SMALLINT	Unique number assigned to each store.
active	BOOLEAN	Is the staff member active? True or False response.
username	CHARACTER VARYING (16)	User name for each staff member.
password	CHARACTER VARYING (40)	Password for each staff member.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.
picture	BYTEA	Photo of each staff member.

Actor

Columns	Data Type	Description
actor_id	SERIAL	Unique number assigned to each actor.
first_name	CHARACTER VARYING (45)	First name of each unique actor.
last_name	CHARACTER VARYING (45)	Last name of each unique actor.
last_updated	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Film

Columns	Data Type	Description
film_id	SERIAL	Unique number assigned to each film
title	CHARACTER VARYING (255)	Title of the film.
description	TEXT	Film description.

release_year	year	The year the film was released.
language_id	SMALLINT	Unique number assigned to each film to identify the film's language.
rental_duration	SMALLINT	The number of days the movie was rented.
rental_rate	NUMERIC(4,2)	Dollar amount the film was rented for.
length	SMALLINT	Number of minutes of each film.
replacement_cost	NUMERIC(5,2)	Dollar amount to replace the film.
rating	mpaa_rating	Each film's rating (i.e. PG, PG 13, R, etc.)
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.
special_features	TEXT[]	The special features included with each film.
fulltext	TSVECTOR	Keywords linked to each film that a customer may use in searching for the film.

Category

Columns	Data Type	Description
category_id	SERIAL	Unique number assigned to each film category.
name	CHARACTER VARYING (25)	Category name.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Language

Columns	Data Type	Description
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language_id	SERIAL	Unique number assigned to each film to identify the film's language.
name	CHARACTER(20)	Language name.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Addresses

Columns	Data Type	Description
address_id	SERIAL	Unique number assigned to each store, staff member, and customer identifying their address.
address	CHARACTER VARYING (50)	Street address.
address2	CHARACTER VARYING (50)	Second part of address for apartment #'s, Suite #'s, Unit #'s, etc.
district	CHARACTER VARYING (20)	State, province, or territory of the address.
city_id	SMALLINT	Unique number assigned to each city.
postal_code	CHARACTER VARYING (10)	Postal code for each address.
phone	CHARACTER VARYING (20)	Phone number for each address.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

City

Columns	Data Type	Description
city_id	SERIAL	Unique number assigned to each city.
city	CHARACTER VARYING (50)	Name of the city.

country_id	SMALLINT	Unique number assigned to each country.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Country

Columns	Data Type	Description
country_id	SERIAL	Unique number assigned to each country.
country	CHARACTER VARYING (50)	Name of the country.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of when the table was last updated.

Question 4:

A: Payment, Actor, Film, Rental and Film Actor.

B: Language, Film and Inventory