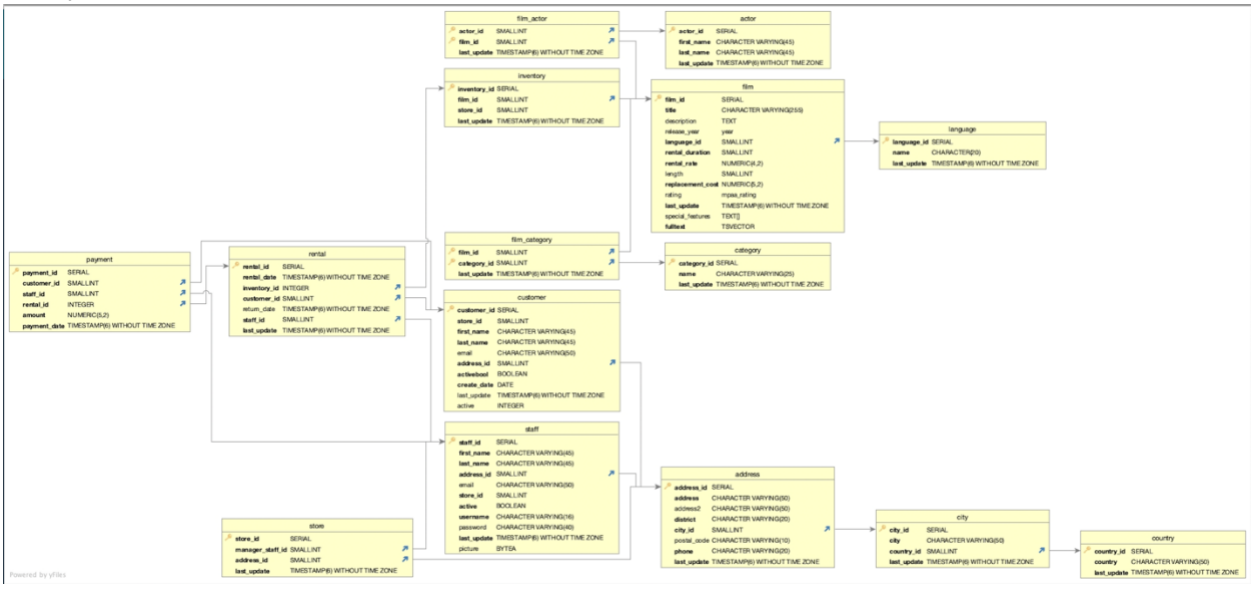
Answers 3.2

Step 2



Step 3

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 database has a snowflake schema, because it has a centralized fact table, connected to multiple dimensions that further divide away from the center.

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.

Fact Tables:

rental		
Column	Data Type	Description
rental_id	SERIAL	Identification number of rental
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of rental
inventory_id	INTEGER	Identification number of inventory
customer_id	SERIAL	Identification number of customer
return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of return
staff_id	SMALLINT	Identification number of staff member
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

Dimension tables

payment		
Column	Data Type	Description
payment_id	SERIAL	Identification number of payment
customer_id	SMALLINT	Identification number of customer
staff_id	SMALLINT	Identification number of staff member
rental_id	INTEGER	Identification number of rental
amount	NUMERIC (5,2)	Cost of rental
payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of payment

store		
Column	Data Type	Description
store_id	SERIAL	Identification number of store
manager_staff_id	SMALLINT	Identification number of manager
address_id	SMALLINT	Identification number of address
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

film_actor		
Column	Data Type	Description
actor_id	SMALLINT	Identification number of actor
film_id	SMALLINT	Identification number of film
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

inventory		
Column	Data Type	Description
inventory_id	INTEGER	Identification number of inventory
film_id	SMALLINT	Identification number of film
store_id	SMALLINT	Identification number of store
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

film_category		
Column	Data Type	Description
film_id	SMALLINT	Identification number of film
category_id	SERIAL	Identification number of film category (genre)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

customer		
Column	Data Type	Description
customer_id	SERIAL	Identification number of customer
store_id	SMALLINT	Identification number of store
first_name	CHARACTER VARYING(45)	First name of customer
last_name	CHARACTER VARYING(45)	First name of customer
email	CHARACTER VARYING(50)	Email of customer
address_id	SMALLINT	Identification number of address
activebool	BOOLEAN	Active status (boolean)
create_date	DATE	Date of account creation
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update
active	INTEGER	Active status (binary numerical)

staff		
Column	Data Type	Description
staff_id	SERIAL	Identification number of staff member
first_name	CHARACTER VARYING(45)	First name of staff member
last_name	CHARACTER VARYING(45)	Last name of staff member
address_id	SMALLINT	Identification number of address
email	CHARACTER VARYING(50)	Email of staff member
store_id	SMALLINT	Identification number of store
active	INTEGER	Active status (binary numerical)
username	CHARACTER VARYING(16)	Employee username
password	CHARACTER VARYING(40)	Employee password
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update
picture	BYTEA	Employee photo

actor		
Column	Data Type	Description
actor_id	SMALLINT	Identification number of actor
first_name	CHARACTER VARYING(45)	Last name of actor
last_name	CHARACTER VARYING(45)	First name of actor
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

film		
Column	Data Type	Description
film_id	SMALLINT	Identification number of film
title	CHARACTER VARYING(255)	Name of film
description	TEXT	Description of film
release_year	year	Year of film release
language_id	SMALLINT	Identification number of language
rental_duration	SMALLINT	Number of days rented
rental_rate	NUMERIC (4,2)	Cost of renting film
length	SMALLINT	Length of film in minutes
replacement_cost	NUMERIC (5,2)	Cost of replacing film
rating	mpaa_rating	Film rating
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update
special_features	TEXT []	Special features of film
fulltext	TSVECTOR	Keywords of film

category		
Column	Data Type	Description
category_id	SERIAL	Identification number of film category (genre)
name	CHARACTER VARYING(25)	Name of film category (genre)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

address		
Column	Data Type	Description
address_id	SERIAL	Identification number of address
address	CHARACTER VARYING(50)	Store address
address2	CHARACTER VARYING(50)	Secondary store address
district	CHARACTER VARYING(20)	Name of district (state/province)
city_id	SMALLINT	Identification number of city
postal_code	CHARACTER VARYING(10)	Postal code of store
phone	CHARACTER VARYING(20)	Phone number of store
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

language		
Column	Data Type	Description
language_id	SMALLINT	Identification number of language
name	CHARACTER VARYING(20)	Name of language of film
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

city		
Column	Data Type	Description
city_id	SMALLINT	Identification number of city
city	CHARACTER VARYING(50)	Name of city
country_id	SERIAL	Identification number of country
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

country		
Column	Data Type	Description
country_id	SERIAL	Identification number of country
country	CHARACTER VARYING(50)	Name of country
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time of last update

Step 4

Which actors brought Rockbuster the most revenue?

The most revenue can be found in “rental_rate” in the film table. Then by connecting the film_actor and actor tables we can extrapolate how much revenue is attributed to each actor via the associations.

What language are the majority of movies in the collection?

The film language can be found in “language_id” in the film table. Then by connecting the language table, we can see how frequent each language is via the association.