

- 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 since it has many more joins than the star schema version. We can see there is a 'main' table that is connected to many dimension tables, which seems to be connected to other dimension tables.

- 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	Unique identifier number for rental
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of rental
inventory_id	INTEGER	Unique identifier number for inventory
customer_id	SMALLINT	Unique identifier number for customer
return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of return
staff_id	SMALLINT	Unique identifier number for staff
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last date of update

Payment

COLUMN	DATA TYPE	DESCRIPTION
payment_id	SERIAL	Unique identifier number for payment
customer_id	SMALLINT	Unique identifier number for customer
staff_id	SMALLINT	Unique identifier number for staff
rental_id	INTEGER	Unique identifier number for rental
Amount	NUMERIC	Paid amount
payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of payment

DIMENSION TABLES

Customer

COLUMN	DATA TYPE	DESCRIPTION
customer_id	SERIAL	Unique identifier number for customer
store_id	SMALLINT	Unique identifier number for store
first_name	CHARACTER VARYING(45)	Customer's first name
last_name	CHARACTER VARYING(45)	Customer's last name
Email	CHARACTER VARYING(45)	E-mail address
address_id	SMALLINT	Unique identifier number for address
activebool	BOOLEAN	
create_date	DATE	Account's creation date
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date
active	INTEGER	Is the account currently active?

Address

COLUMN	DATA TYPE	DESCRIPTION
address_id	SERIAL	Unique identifier number for store
address	CHARACTER VARYING(50)	Unique identifier number for manager staff
Address2	CHARACTER VARYING(50)	Unique identifier number for address
district	CHARACTER VARYING(20)	Last update date
city_id	SMALLINT	Unique identifier number for city
postal_code	CHARACTER VARYING(10)	City zip code
phone	CHARACTER VARYING(20)	Phone number
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

## Store

COLUMN	DATA TYPE	DESCRIPTION
store_id	SERIAL	Unique identifier number for store
manager_staff_id	SMALLINT	Unique identifier number for manager staff
address_id	SMALLINT	Unique identifier number for address
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

## Staff

COLUMN	DATA TYPE	DESCRIPTION
staff_id	SERIAL	Unique identifier number for staff
first_name	CHARACTER VARYING(45)	Customer's first name
last_name	CHARACTER VARYING(45)	Customer's last name
address_id	SMALLINT	Unique identifier number for address
Email	CHARACTER VARYING(50)	E-mail address
store_id	SMALLINT	Unique identifier number for store
active	BOOLEAN	Is the account currently active?
username	CHARACTER VARYING(16)	identification used by staff to get access to network
password	CHARACTER VARYING(40)	Staff's password
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date
picture	BYTEA	Picture of the staff person

## City

COLUMN	DATA TYPE	DESCRIPTION
city_id	SERIAL	Unique identifier number for city
city	CHARACTER VARYING(50)	City of residence
country_id	SMALLINT	Unique identifier number for country
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

## Country

COLUMN	DATA TYPE	DESCRIPTION
country_id	SERIAL	Unique identifier number for store
country	SMALLINT	Unique identifier number for manager staff
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

Film\_actor

COLUMN	DATA TYPE	DESCRIPTION
actor_id	SMALLINT	Unique identifier number for actor
film_id	SMALLINT	Unique identifier number for film
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

Actor

COLUMN	DATA TYPE	DESCRIPTION
actor_id	SERIAL	Unique identifier number for actor
first_name	CHARACTER VARYING(45)	Actor's first name
last_name	CHARACTER VARYING(45)	Actor's last name
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

Inventory

COLUMN	DATA TYPE	DESCRIPTION
inventory_id	SERIAL	Unique identifier number for inventory
film_id	SMALLINT	Unique identifier number for film
store_id	SMALLINT	Unique identifier number for store
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

Film

COLUMN	DATA TYPE	DESCRIPTION
film_id	SERIAL	Unique identifier number for film
title	CHARACTER VARYING(255)	Film's title
description	TEXT	Film's description
release_year	year	Year when film was released
language_id	SMALLINT	Unique identifier number for language
rental_duration	SMALLINT	The time between rent due dates
rental_rate	NUMERIC(4,2)	Frequency % of rental
length	SMALLINT	Duration of movie
replacement_cost	NUMERIC(5,2)	Cost to replace the film
rating	mpaa_rating	classification of films based on their suitability for audiences due to their treatment of certain <i>issues</i>
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date
special_features	TEXT[]	Special features of the film
fulltext	TSVECTOR	Text of the film

Film Category

COLUMN	DATA TYPE	DESCRIPTION
film_id	SERIAL	Unique identifier number for film
category_id	SMALLINT	Unique identifier number for category
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

Language

COLUMN	DATA TYPE	DESCRIPTION
language_id	SERIAL	Unique identifier number for language
name	CHARACTER VARYING(25)	Name of the language
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

Category

COLUMN	DATA TYPE	DESCRIPTION
category_id	SERIAL	Unique identifier number for inventory
name	CHARACTER VARYING(25)	Name of the language
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update date

- Which actors brought Rockbuster the most revenue?
  - Actor,
  - Film\_actor
  - Film
  - Inventory
  - Rental
  - Payments
- What language are the majority of movies in the collection?
  - Film\_category
  - Inventory
  - Film
  - Category
  - Language









