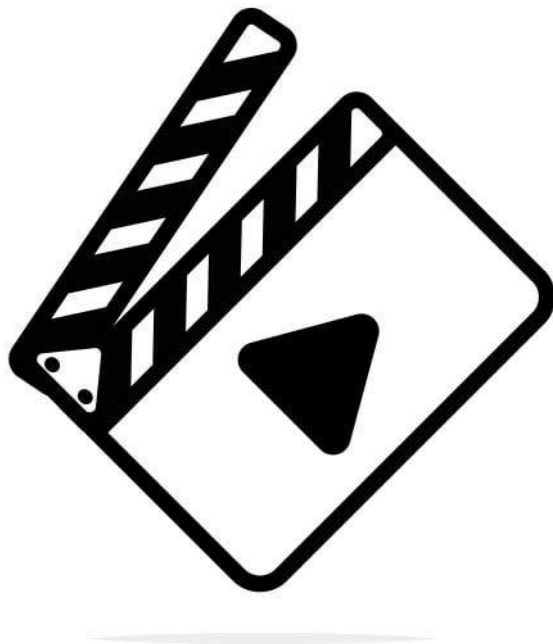


Rockbuster Data Dictionary

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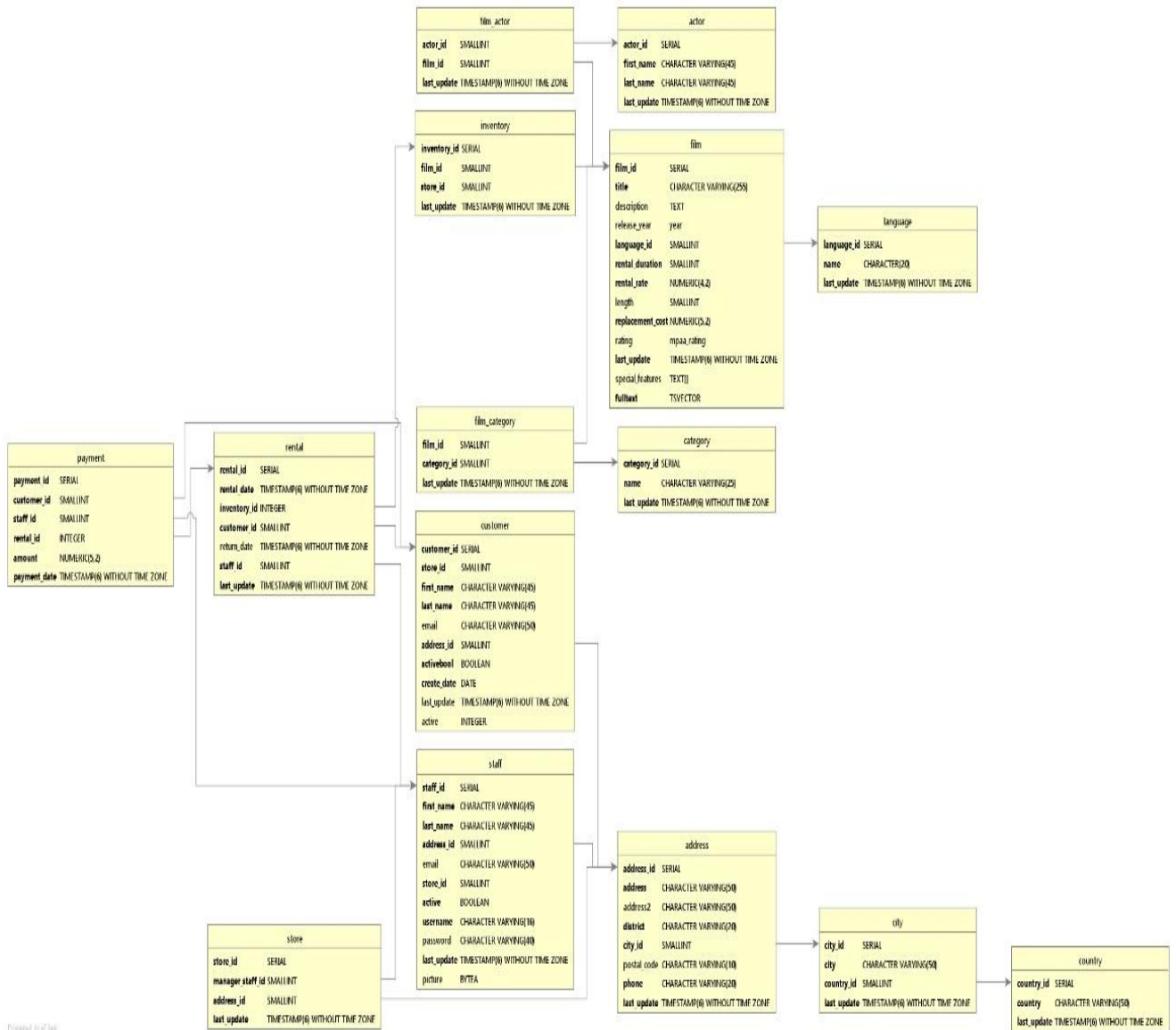


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1. Rockbuster Entity Relationship Diagram



2. Rockbuster data dictionary

The Rockbuster database has several dimensions and sub-dimension tables (i.e., following a snowflake schema), where rental is a fact table. The fact table relates to the following dimension tables: *payment* for this rental, the *film category*, the *costumer* who rented the film, the *staff* who assisted in the process, the *store* where rentals took place, and the *address*, *city* and *country* of the store where the rental took place. Rentals are checked through an *inventory*, where the film rented is registered, as is the *language* used in those films, the *film_actor* and the *actors* identity, the *film_category* and the *category*.

Data tables

payment

- Dimension table
- Information about payments made for rentals

Columns	Data type	Description
payment_id	SERIAL	Surrogate key, unique numeric identifier for payments created in this column. A sequential integer is automatically assigned by the database server when a new row is inserted.
customer_id	SMALLINT	Foreign key to the customer table, data type is a small integer.
staff_id	SMALLINT	Foreign key to the staff table, data type is a small integer.
rental_id	INTEGER	Foreign key to the rental table. Numbers are whole.
amount	NUMERIC (5,2)	This is the actual amount paid for the rental in currency. The numeric data type means it is decimal and the column can include any value with five digits and two decimals.
payment date	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the payment date includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links to

Table	Join	Description
customer	customer_id	Data type is small integer.
staff	staff_id	Data type is small integer.
rental	rental_id	Numbers are whole

Unique key

Column	Description
payment_id	Surrogate key, unique numeric identifier for payments created in this column.

rental (Fact table)

- Fact table
- Information about the rental data of films.

Columns	Data type	Description
rental_id	SERIAL	<p>Surrogate key, unique numeric identifier for rentals created in this column.</p> <p>A sequential integer is automatically assigned by the database server when a new row is inserted.</p>
rental_date	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.
inventory_id	INTEGER	<p>Foreign key to the inventory table. It is also a unique identifier key of the inventory table.</p> <p>numbers are whole, or without a decimal point.</p>
customer_id	SMALLINT	<p>Foreign key to the costumer table.</p> <p>Data type is a small integer. It implies it stores small whole numbers that range from – 32,767 to 32,767.</p>

return_date	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the return date, includes date (yyyy-mm-dd format) plus hour, minutes, and seconds. Does not include the time zone.
staff_id	SMALLINT	Foreign key to the staff table
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
payment	rental_id	Data type is a sequential integer

Links to

Table	Join	Description
inventory	inventory_id	numbers are whole, or without a decimal point.
customer	customer_id	Data type is a small integer.
staff	staff_id	Data type is a small integer.

Unique key

Column	Description
rental_id	Surrogate key, unique numeric identifier for rentals created in this column.

film_category

- Dimension table
- Information about the film category

Columns	Data type	Description
film_id	SMALLINT	Foreign key to the film table
category_id	SMALLINT	Foreign key to the category table
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and

		seconds of the rental. Does not include the time zone.
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Links to

Table	Join	Description
film	film_id	numbers are whole, or without a decimal point.
category	category_id	Data type is a small integer.

No Unique key

category

- Dimension table
- Information about categories that are used, sub-dimension of the film category table

Columns	Data type	Description
category_id	SERIAL	Surrogate key, with a unique identifier for each film category.
name	CHARACTER VARYING (25)	Name of the film category (e.g., action, animation, etc.) Can only have up to 25 characters in length
last_update	TIMESTAMP WITHOUT TIME ZONE (6)	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
film_category	category_id	Data type is a small integer.

Unique key

Column	Description
category_id	Surrogate key, unique numeric identifier for categories created in this column.

inventory

- Dimension table
- Information about the inventory of films rented

Columns	Data type	Description
Inventory_id	SERIAL	Surrogate key, with a unique identifier for the inventory.
Film_id	SMALLINT	Foreign key to the film table
Store_id	SMALLINT	Foreign key to the store table
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
rental	inventory_id	Data type is a sequential integer

Links to

Table	Join	Description
film	film_id	numbers are whole, or without a decimal point.
store	store_id	Data type is a small integer.

Unique key

Column	Description
inventory_id	Surrogate key, unique numeric identifier for inventory created in this column.

film

- Dimension table
- Information about the films available for rent, including title, and rental rate

Columns	Data type	Description
film_id	SERIAL	Surrogate key with a unique identifier for the film.
title	CHARACTER VARYING (255)	Title of the film. Can contain numbers, text, or special

		characters with a length of up to 255.
description	TEXT	Description of the film it is short synopsis of the film.
release_year	Year	Year the film was released
language_id	SMALLINT	Foreign key to the language table. Language in which the film is spoken.
rental_duration	SMALLINT	Duration (in days) of the rental of the film
rental_rate	NUMERIC (5,2)	Cost of renting the film, in numeric values.
length	SMALLINT	Duration of the film in minutes, in whole numbers
replacement cost	NUMERIC (5,2)	A cost, in numeric value, including decimals.
rating	mpaa_rating	Rating of the film by the motion picture association.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of table update six characters
special features	TEXT []	Refers to special features that the rental includes, for instance, trailers, behind the scenes. The brackets indicate this information given in text should be within [].
fulltext	TSVECTOR	Text is organized in an optimized form for text search.

Links from

Table	Join	Description
inventory	film_id	Data type is a sequential integer
film_actor	film_id	Data type is a sequential integer

Links to

Table	Join	Description
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language	film_id	numbers are whole, or without a decimal point.
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Unique key

Column	Description
film_id	Surrogate key, unique numeric identifier for film created in this column.

language

- Dimension table
- Information about the language of the films available for rent, sub-dimension of film table

Columns	Data type	Description
language_id	SERIAL	Surrogate key
name	CHARACTER VARYING (20)	Name of language (Japanese, etc.) with characters up to 20.
last_update	TIMESTAMP WITHOUT TIME ZONE (6)	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
film	language_id	Data type is a sequential integer

Unique key

Column	Description
language_id	Surrogate key, unique numeric identifier for languages created in this column.

film_actor

- Dimension table
- Information about the ID of the actors in the films available for rent

Columns	Data type	Description
actor_id	SMALLINT	Foreign key to the actor table

film_id	SMALLINT	Foreign key to the film table
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links to

Table	Join	Description
actor	actor_id	Data type is small integer.
film	film_id	Data type is small integer.

No unique key

actor

- Dimension table
- Information about the actors, a sub-dimension of film_actor table

Columns	Data type	Description
actor_id	SERIAL	Surrogate key, unique identifier allocated to each actor.
first_name	CHARACTER VARYING (45)	Name, in characters, not exceeding the length of 45
last_name	CHARACTER VARYING (45)	Surname, in characters, not exceeding the length of 45
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
film_actor	actor_id	Data type is a sequential integer

Unique key

Column	Description
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actor_id	Surrogate key, unique numeric identifier for actors created in this column.
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customer

- Dimension table
- Information about the customers who rent films

Columns	Data type	Description
customer_id	SERIAL	Surrogate key, unique identifier for each customer.
store_id	SMALLINT	Foreign key to store table.
first_name	CHARACTER VARYING (45)	First name of customer, in characters not exceeding the length of 45
last_name	CHARACTER VARYING (45)	Surname of customer, in characters, not exceeding the length of 45
email	CHARACTER VARYING (50)	Email address of customer. Characters up to 50, including special characters, numbers, or text.
address_id	SMALLINT	Foreign key of address table.
activebool	BOOLEAN	True or false value – is the customer active or not?
create_date	DATE	Date the customer file was created.
last_update	TIMESTAMP WITHOUT TIME ZONE (6)	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.
active	INTEGER	Number (seems like a true or false value?)

Links from

Table	Join	Description
rental	customer_id	Data type is a sequential integer
store	store_id	Data type is a sequential integer

Links to

Table	Join	Description
address	address_id	Data type is a sequential integer
store	store_id	Data type is a small integer.

Unique key

Column	Description
customer_id	Surrogate key, unique numeric identifier for customers created in this column.

staff

- Dimension table
- Information about the staff who works in the stores

Columns	Data type	Description
staff_id	SERIAL	Surrogate key, unique identifier for each staff member.
first_name	CHARACTER VARYING (45)	Name, in characters not exceeding the length of 45
last_name	CHARACTER VARYING (45)	Surname, in characters, not exceeding the length of 45
address_id	SMALLINT	Foreign key to address table.
email	CHARACTER VARYING (50)	Email address of customer. Characters up to 50.
store_id	SMALLINT	Foreign key to store.
active	BOOLEAN	True or false value (is the staff member active or not?)
username	CHARACTER VARYING (16)	Username for entering in the company's internal system, using words, numbers, or special characters with a maximum length of 16.
password	CHARACTER VARYING (40)	Password for the company's internal system, using up to 40 characters, including

		words, numbers, or special characters.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.
picture	BYTEA	Picture of the staff member in binary data.

Links from

Table	Join	Description
rental	staff_id	Data type is a sequential integer
store	store_id	Data type is a small integer

Links to

Table	Join	Description
address	address_id	Data type is a small integer.

Unique key

Column	Description
staff_id	Surrogate key, unique numeric identifier for staff created in this column.

store

- Dimension table
- Information about the stores where films were rented

Columns	Data type	Description
store_id	SERIAL	Surrogate key, unique identifier of the store
manager_staff_id	SMALLINT	Unique identifier of the manager staff Id.
address_id	SMALLINT	Foreign key to address table.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and

		seconds of the rental. Does not include the time zone.
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Links to

Table	Join	Description
customer	store_id	Data type is a sequential integer
address	address_id	Data type is a small integer.

Unique key

Column	Description
store_id	Surrogate key, unique numeric identifier for store created in this column.

address

- Dimension table
- Information about the address of the stores where films are rented

Columns	Data type	Description
address_id	SERIAL	Surrogate key, unique identifier for address
address	CHARACTER VARYING (50)	Street name, number, etc. using words, numbers, or special characters with a length of up to 50 characters
address2	CHARACTER VARYING (50)	Second address line (if needed, in most cases it is a null value)
district	CHARACTER VARYING (20)	Name of district using words, numbers or special characters with a length of up to 20.
city_id	SMALLINT	Foreign key to city table.
postal_code	CHARACTER VARYING (10)	Postal code using words, numbers, or special characters with a length of up to 10.
phone	CHARACTER VARYING (20)	Phone number with a length of up to 20 characters.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and

		seconds of the rental. Does not include the time zone.
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Links from

Table	Join	Description
customer	address_id	Data type is a small integer.
staff	address_id	Data type is a small integer
store	address_id	Data type is a small integer

Links to

Table	Join	Description
city	city_id	Data type is a small integer.

Unique key

Column	Description
address_id	Surrogate key, unique numeric identifier for address created in this column.

city

- Dimension table
- City in which stores are located – sub-dimension of the address table

Columns	Data type	Description
city_id	SERIAL	Surrogate key with a unique identifier for the city.
city	CHARACTER VARYING (50)	City name, with a length of up to 50 characters, using words, numbers or special characters.
country_id	SMALLINT	Foreign key to country table.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
address	city_id	Data type is a small integer.

Links to

Table	Join	Description
country	country_id	Data type is a small integer.

Unique key

Column	Description
city_id	Surrogate key, unique numeric identifier for city created in this column.

country

- Dimension table
- Information on the country of where stores are located, sub-dimension of city and address

Columns	Data type	Description
country_id	SERIAL	Surrogate key, with a unique identifier for the country.
country	CHARACTER VARYING (50)	Country name, with a length of up to 50 characters, using words, numbers, or special characters.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Timestamp of the last update includes data (yyyy-mm-dd) plus hour, minutes, and seconds of the rental. Does not include the time zone.

Links from

Table	Join	Description
city	city_id	Data type is a sequential integer

Unique key

Column	Description
country_id	Surrogate key, unique numeric identifier for country created in this column.