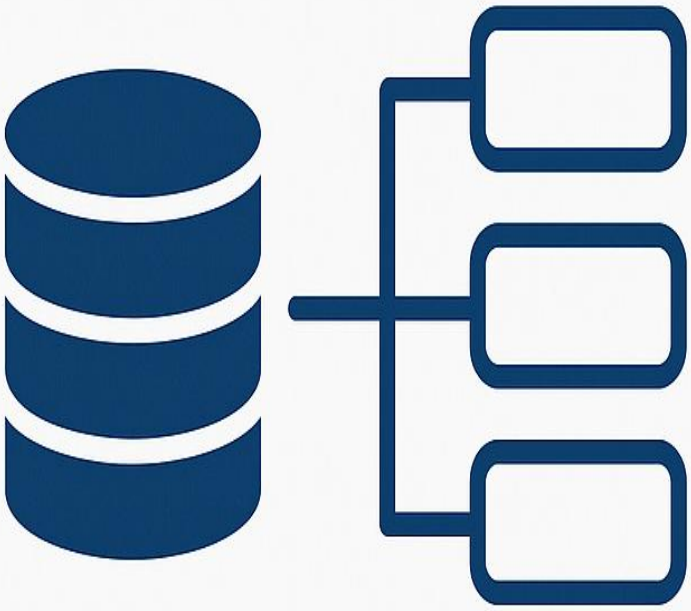
Rockbuster Data Dictionary



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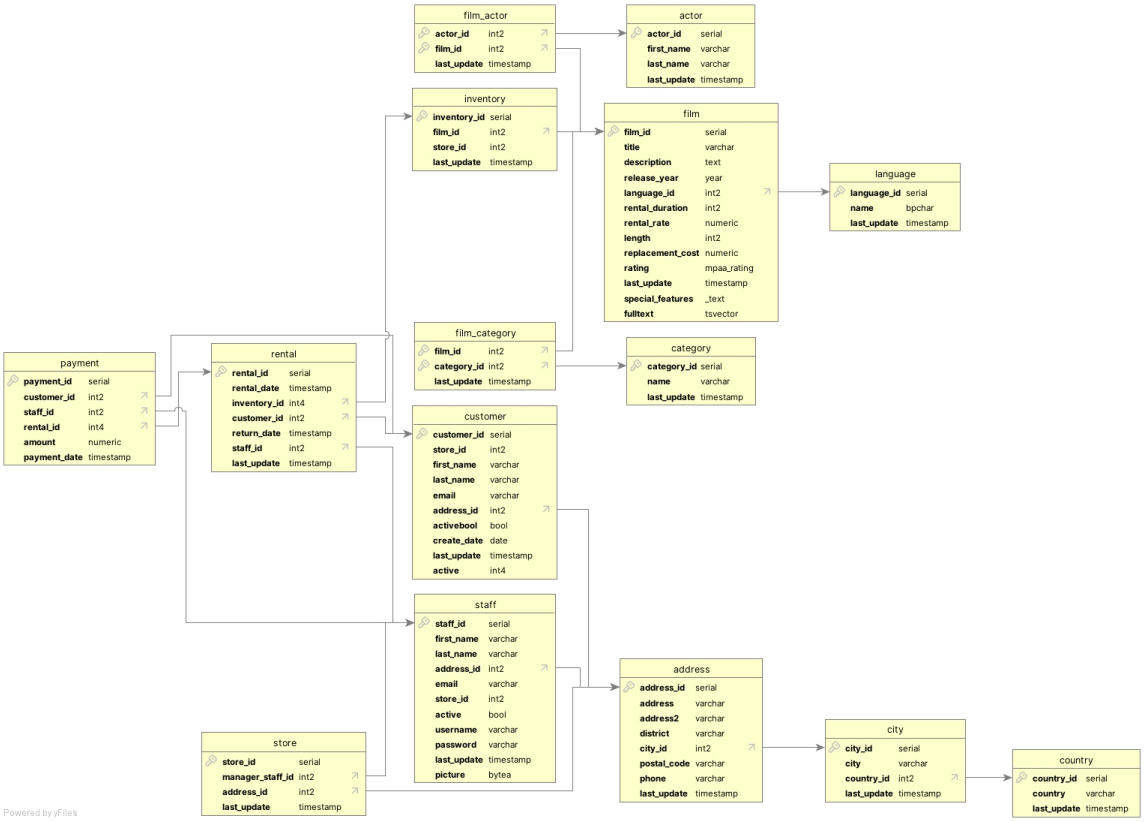
1. ENTITY RELATIONSHIP DIAGRAM (ERD)



2. SCHEMA TYPE

Schema Type: Star Schema

Explanation: The Rockbuster database features a central fact table (e.g., rental or payment) surrounded by multiple dimension tables (such as customer, film, store, and inventory). These tables are directly connected, resembling the structure of a star.

Schema Name: public (default schema in PostgreSQL)

3. FACT AND DIMENSION TABLES

Fact Tables:
- payment
- rental

Dimension Tables:
- customer
- staff
- store
- address
- city
- country
- film
- actor
- category
- language
- inventory

4. CUSTOMER TABLE

Table Name: customer

Linked To:
- address (via address_id)
- payment (via customer_id)

Linked From:
- (none)

Unique Keys:
- customer_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
customer_id	INTEGER	No	Primary Key
store_id	INTEGER	No	Foreign Key
first_name	VARCHAR(45)	No	None
last_name	VARCHAR(45)	No	None
email	VARCHAR(50)	Yes	None
address_id	INTEGER	No	Foreign Key
active	BOOLEAN	No	None
create_date	DATE	No	None
last_update	TIMESTAMP	Yes	None

5. PAYMENT TABLE

Table Name: payment

Linked To:
- customer (via customer_id)

Linked From:
- (none)

Unique Keys:
- payment_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
payment_id	INTEGER	No	Primary Key
customer_id	INTEGER	No	Foreign Key
staff_id	INTEGER	No	Foreign Key
rental_id	INTEGER	Yes	Foreign Key
amount	DECIMAL(5,2)	No	None
payment_date	TIMESTAMP	No	None

6. ADDRESS TABLE

Table Name: address

Linked To:
- city (via city_id)

Linked From:
- customer (via address_id)
- store (via address_id)

Unique Keys:
- address_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
address_id	INTEGER	No	Primary Key
address	VARCHAR(50)	No	None
address2	VARCHAR(50)	Yes	None
district	VARCHAR(20)	No	None
city_id	INTEGER	No	Foreign Key
postal_code	VARCHAR(10)	Yes	None
phone	VARCHAR(20)	No	None
last_update	TIMESTAMP	No	None

7. CITY TABLE

Table Name: city

Linked To:
- country (via country_id)

Linked From:
- address (via city_id)

Unique Keys:
- city_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
city_id	INTEGER	No	Primary Key
city	VARCHAR(50)	No	None
country_id	INTEGER	No	Foreign Key
last_update	TIMESTAMP	No	None

8. COUNTRY TABLE

Table Name: country

Linked To:
- (none)

Linked From:
- city (via country_id)

Unique Keys:
- country_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
country_id	INTEGER	No	Primary Key
country	VARCHAR(50)	No	None
last_update	TIMESTAMP	No	None

STAFF TABLE

Table Name: staff

Linked To:
- store (via store_id)
- address (via address_id)

Linked From:
- payment (via staff_id)

Unique Keys:
- staff_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
staff_id	INTEGER	No	Primary Key
first_name	VARCHAR(45)	No	None
last_name	VARCHAR(45)	No	None
address_id	INTEGER	No	Foreign Key
email	VARCHAR(50)	Yes	None
store_id	INTEGER	No	Foreign Key
active	BOOLEAN	No	None
username	VARCHAR(16)	No	None
password	VARCHAR(40)	Yes	None
last_update	TIMESTAMP	No	None

STORE TABLE

Table Name: store

Linked To:
- address (via address_id)
- staff (via manager_staff_id)

Linked From:
- customer (via store_id)
- staff (via store_id)

Unique Keys:
- store_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
store_id	INTEGER	No	Primary Key
manager_staff_id	INTEGER	No	Foreign Key
address_id	INTEGER	No	Foreign Key
last_update	TIMESTAMP	No	None

INVENTORY TABLE

Table Name: inventory

Linked To:
- film (via film_id)
- store (via store_id)

Linked From:
- rental (via inventory_id)

Unique Keys:
- inventory_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
inventory_id	INTEGER	No	Primary Key
film_id	INTEGER	No	Foreign Key
store_id	INTEGER	No	Foreign Key
last_update	TIMESTAMP	No	None

FILM TABLE

Table Name: film

Linked To:
- language (via language_id)

Linked From:
- inventory (via film_id)

Unique Keys:
- film_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
film_id	INTEGER	No	Primary Key
title	VARCHAR(255)	No	None
description	TEXT	Yes	None
release_year	YEAR	Yes	None
language_id	INTEGER	No	Foreign Key
rental_duration	INTEGER	No	None
rental_rate	DECIMAL(4,2)	No	None
length	SMALLINT	Yes	None
replacement_cost	DECIMAL(5,2)	No	None
rating	VARCHAR(10)	Yes	None
last_update	TIMESTAMP	No	None

ACTOR TABLE

Table Name: actor

Linked To:
- (none)

Linked From:
- film_actor (via actor_id)

Unique Keys:
- actor_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
actor_id	INTEGER	No	Primary Key
first_name	VARCHAR(45)	No	None
last_name	VARCHAR(45)	No	None
last_update	TIMESTAMP	No	None

CATEGORY TABLE

Table Name: category

Linked To:
- (none)

Linked From:
- film_category (via category_id)

Unique Keys:
- category_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
category_id	INTEGER	No	Primary Key
name	VARCHAR(25)	No	None
last_update	TIMESTAMP	No	None

LANGUAGE TABLE

Table Name: language

Linked To:
- (none)

Linked From:
- film (via language_id)

Unique Keys:
- language_id (Primary Key)

Column Details:

Column Name	Data Type	Nullable	Key Type
language_id	INTEGER	No	Primary Key
name	CHAR(20)	No	None
last_update	TIMESTAMP	No	None