Rockbuster Stealth

Data Dictionary
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1. Introduction

This data dictionary provides a comprehensive reference to the structure, relationships, and content of the Rockbuster Stealth database. It is intended to support data analysts and business stakeholders in understanding the data architecture and enable accurate querying and reporting.

2. Schema Overview

The Rockbuster database is modeled on a snowflake schema. It includes one main fact table, payment, and several supporting dimension tables including customer, film, staff, and store. Join tables (e.g., film_actor, film_category) support many-to-many relationships between dimensions. This schema supports OLAP-style analysis for business intelligence.

3. Fact and Dimension Tables

Table Name	Type	Description
payment	Fact	Central transactional table storing payments made by customers.
rental	Fact	Tracks rental transactions including dates and links to inventory.
customer	Dimension	Contains customer names, contact info, and store linkage.
film	Dimension	Includes film title, description, language, and rating.
staff	Dimension	Stores data on Rockbuster employees and their assigned stores.
store	Dimension	Details for each physical store location and management.
inventory	Dimension	Stores inventory status of films per store.
address	Dimension	Physical addresses tied to

			customers, staff, and stores.
city	Dimension		City names linked to addresses.
country	Dimension		Countries linked to cities.
actor	Dimension		First and last names of actors in films.
category	Dimension		Film genres such as Animation, Drama, etc.
film_actor	Join		Join table linking films and actors (many-to-many).
film_category	Join		Join table linking films and categories (many-to-many).
language	Dimension		Languages used for film audio or subtitles.

4. Detailed Table Dictionary

payment Table

Column Name	Data Type	Description
payment_id	serial	Primary key, uniquely identifies each payment.
customer_id	int	Foreign key to customer table.
staff_id	int	Foreign key to staff table.
rental_id	int	Foreign key to rental table.
amount	numeric	Total amount paid.
payment_date	timestamp	Date and time payment was made.

customer Table

Column Name	Data Type	Description
customer_id	int	Primary key.
store_id	int	Foreign key to store table.
first_name	varchar	Customer first name.
last_name	varchar	Customer last name.
email	varchar	Customer email address.
address_id	int	Foreign key to address table.
active	int	1 = active, 0 = inactive.
create_date	date	Account creation date.
last_update	timestamp	Last profile update.

film Table

Column Name	Data Type	Description

film_id	int	Primary key.
title	varchar	Film title.
description	text	Brief synopsis.
release_year	year	Year released.
language_id	int	Foreign key to language.
rental_duration	int	Rental duration in days.
rental_rate	numeric	Rental cost.
length	int	Film length in minutes.
replacement_cost	numeric	Cost to replace film.
rating	mpaa_rating	MPAA rating (e.g., PG-13).

store Table

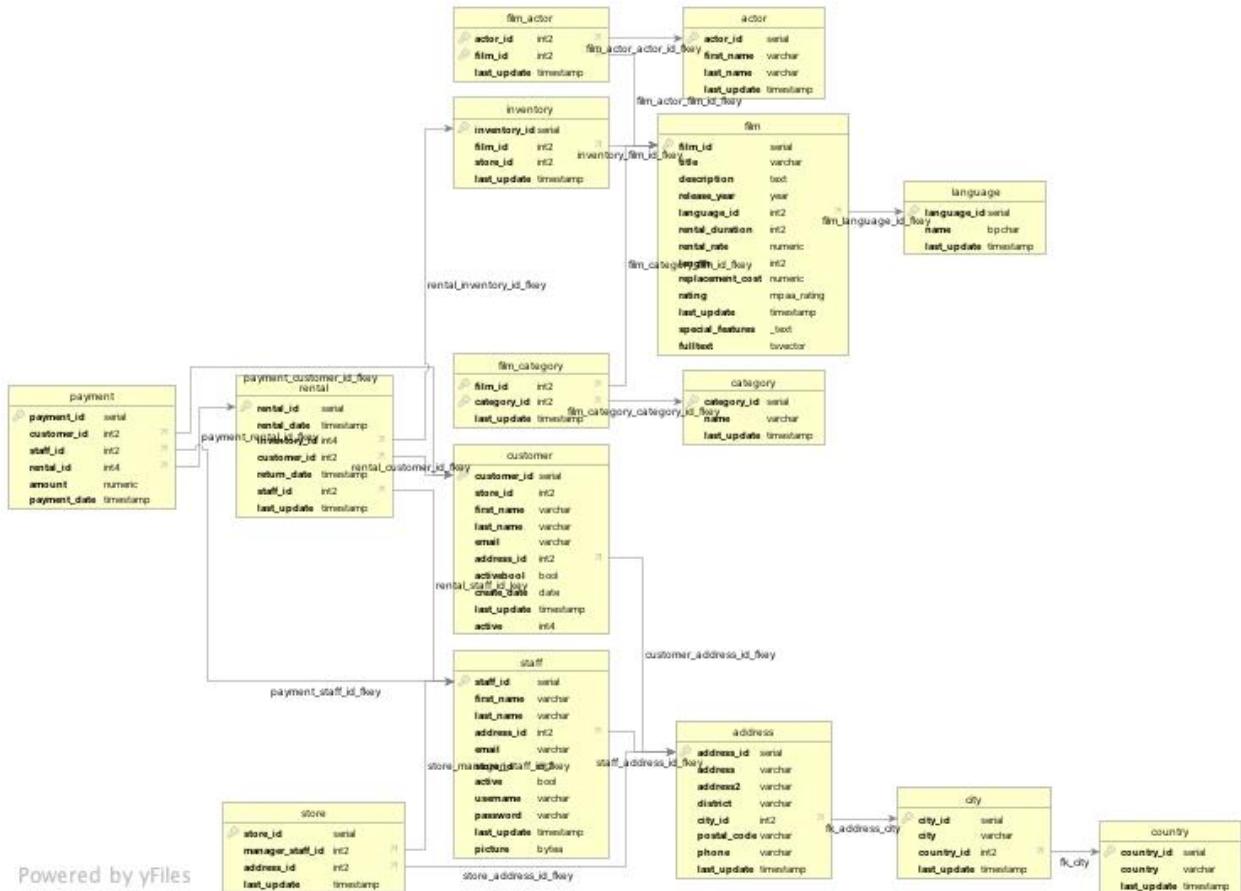| Column Name	Data Type	Description
store_id	int	Primary key.
manager_staff_id	int	FK to staff.
address_id	int	FK to address.

5. Keys and Relationships

The following relationships exist in the Rockbuster database schema. Primary keys are marked, and foreign keys indicate related tables. These relationships form the join paths used in SQL queries.

Table	Primary Key	Foreign Keys
payment	payment_id	customer_id -> customer staff_id -> staff rental_id -> rental
rental	rental_id	inventory_id -> inventory customer_id -> customer staff_id -> staff
inventory	inventory_id	film_id -> film store_id -> store
film_actor	-	film_id -> film actor_id -> actor
film_category	-	film_id -> film category_id -> category
customer	customer_id	store_id -> store address_id -> address
store	store_id	manager_staff_id -> staff address_id -> address
address	address_id	city_id -> city
city	city_id	country_id -> country

6. Appendix: ERD Diagram

The ERD below represents all tables, columns, and relationships in the Rockbuster schema.