Rockbuster Stealth LLC
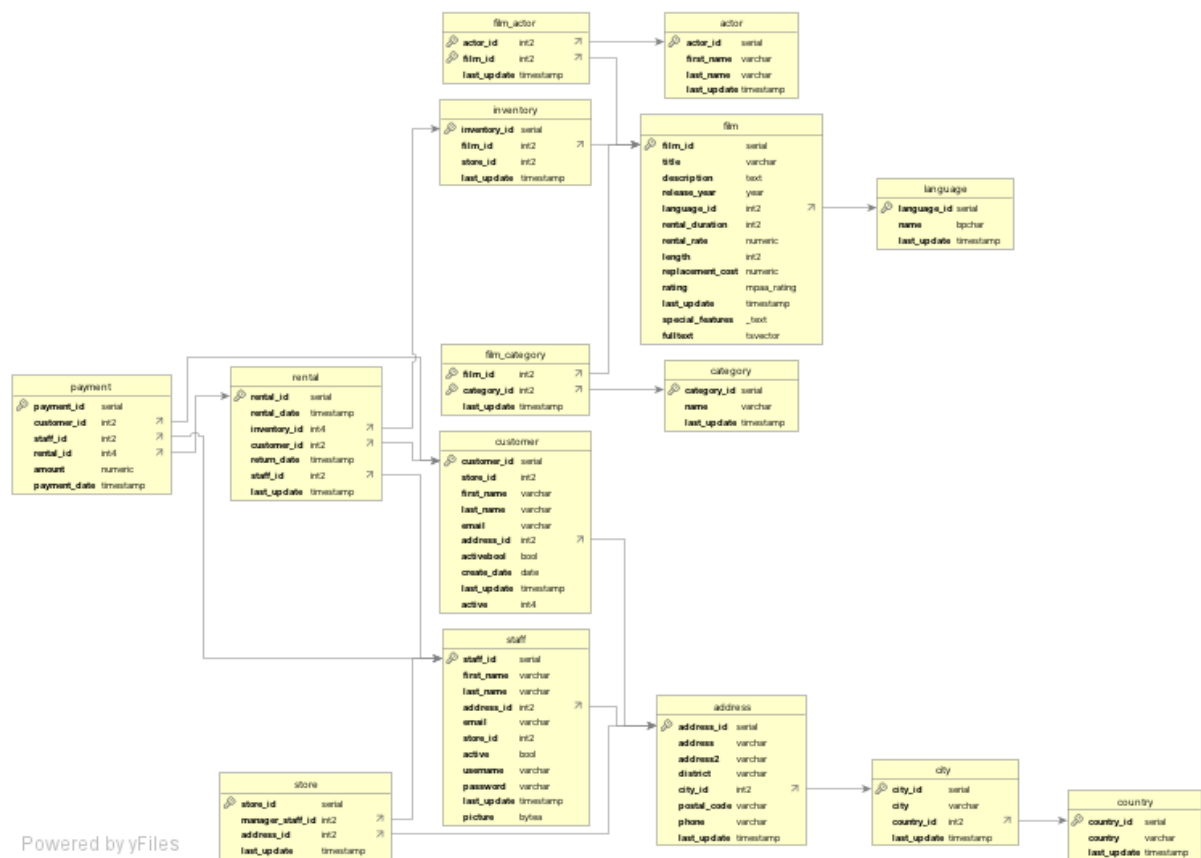# Data Dictionary

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Introduction

Rockbuster Stealth LLC used to run movie rental stores worldwide. But with digital entertainment growing fast and streaming platforms like Netflix and Amazon Prime becoming more popular, they're now shifting to an online rental service using the movie licenses they already have.

This data dictionary is part of a project to help guide this change. The goal is to analyze data to find out which movies rent the best and worst, figure out the average time people keep rentals, identify the most valuable customers, see where Rockbuster's main audience is located, and compare sales in different areas.

The definitions in this document act like a guide for everyone working with the data, so that the analysis stays consistent and accurate.

Entity Relationship Diagram (ERD)

CTE Abbreviations

payment = p

rental = r

inventory = i

customer = c

staff = s

store = st

film = f

city = ci

country = co

film = fi

film_category = fc

film_actor = fa

language = l

actor = a

address = ad

category = ca

Fact and Dimension Tables

FACT TABLE: PAYMENT

Name	Columns	Data Type	Description
Payment	payment_id	integer	Payment ID (PK)
	customer_id	smallint	Customer ID (FK)
	staff_id	smallint	Staff ID (FK)
	rental_id	integer	Rental ID (FK)
	amount	numeric (5,2)	Amount of payment
	payment_date	timestamp without time zone	Date payment was made/accepted

Links to:

Table	Column Name	Join	Description
staff	staff_id	payment.staff_id = staff.staff_id	Staff ID (PK)
customer	customer_id	payment.customer_id = customer.customer_id	Customer ID (PK)
rental	customer_id	payment.customer_id = rental.customer_id	Customer ID (FK)

FACT TABLE: RENTAL

Name	Columns	Data Type	Description
Rental	rental_id	integer	Rental ID (PK)
	rental_date	timestamp without time zone	Date of movie rental
	inventory_id	integer	Inventory ID (FK)
	customer_id	smallint	Customer ID (FK)
	return_date	timestamp without time zone	Date of movie return
	staff_id	smallint	Staff ID (FK)
	last_update	timestamp without time zone	Last update

Links to:

Table	Column Name	Join	Description
staff	staff_id	rental.staff_id = staff.staff_id	Staff ID (PK)
customer	customer_id	rental.customer_id = customer.customer_id	Customer ID (PK)
inventory	inventory_id	rental.inventory_id = inventory.inventory_id	Inventory ID (PK)

Links from:

Table	Column Name	Join	Description
payment	customer_id	rental.customer_id = payment.cusomter_id	Customer ID (FK)

DIMENSION TABLE: ACTOR

Name	Columns	Data Type	Description
actor	actor_id	integer	Actor ID (PK)
	first_name	charater varying (45)	Actor first name
	last_name	charater varying (45)	Actor last name
	last_update	timestamp without time zone	Last update

Links from:

Table	Column Name	Join	Description
film_actor	actor_id	actor.actor_id = actor.actor_id	Actor ID (PK, FK)

DIMENSION TABLE: ADDRESS

Name	Columns	Data Type	Description
address	address_id	integer	Address ID (PK)
	address	character varying (50)	Address
	address2	character varying (50)	Address 2
	district	character varying (20)	District
	city_id	smallint	City ID (FK)
	postal_code	character varying (10)	Postal code
	phone	character varying (20)	Phone number
	last_update	timestamp without time zone	Last update

Links to:

Table	Column Name	Join	Description
city	city_id	address.city_id = city.city_id	City ID (PK)

Links from:

Table	Column Name	Join	Description
customer	address_id	address.address_id = customer.address_id	Address ID (FK)
staff	address_id	address.addressr_id = staff.address_id	Address ID (FK)
store	address_id	address.address_id = store.address_id	Address ID (FK)

DIMENSION TABLE: CATEGORY

Name	Columns	Data Type	Description
category	category_id	integer	Category ID (PK)
	name	character varying (25)	Category name
	last_update	timestamp without time zone	Last update

Links from:

Table	Column Name	Join	Description
film_category	category_id	category.category_id = film_category.category_id	Category ID (PK)

DIMENSION TABLE: CITY

Name	Columns	Data Type	Description
city	city_id	integer	City ID (PK)
	city	character varying (50)	City
	country_id	smallint	Country ID (FK)
	last_update	timestamp without time zone	Last update

Links to:

Table	Column Name	Join	Description
country	country_id	city.country_id = country.country_id	Country ID (PK)

Links from:

Table	Column Name	Join	Description
address	city_id	city.city_id = address.city_id	City ID (FK)

DIMENSION TABLE: COUNTRY

Name	Columns	Data Type	Description
country	country_id	integer	Country ID (PK)
	country	character varying (50)	Country
	last_update	timestamp without time zone	Last update

Links from:

Table	Column Name	Join	Description
city	country_id	country.country_id = country.country_id	Country ID (FK)

DIMENSION TABLE: CUSTOMER

Name	Columns	Data Type	Description
customer	customer_id	integer	Customer ID (PK)
	store_id	smallint	Store ID
	first_name	character varying (45)	Customer first name
	last_name	character varying (45)	Customer last name
	email	character varying (50)	Customer email
	address_id	smallint	Customer address (FK)
	activebool	boolean	If customer is active (true/false)
	create_date	date	Customer created date
	last_update	timestamp without time zone	Last update
	active	integer	If customer is active (0/1)

Links to:

Table	Column Name	Join	Description
address	address_id	customer.address_id = address.address_id	Address ID (PK)

Links from:

Table	Column Name	Join	Description
payment	customer_id	customer.customer_id = payment.customer_id	Customer ID (FK)
rental	customer_id	customer.customer_id = rental.customer_id	Customer ID (FK)

DIMENSION TABLE: FILM

Name	Columns	Data Type	Description
film	film_id	integer	Film ID (PK)
	title	character varying (255)	Film title
	description	text	Film description
	release_year	year	Film release year
	language_id	smallint	Film language (FK)
	rental_duration	smallint	Duration of rental
	rental_rate	numeric (4,2)	Cost of rental per day
	length	smallint	Film length/duration
	replacement_cost	numeric (5,2)	Rental replacement cost
	rating	mpaa_rating	Film rating by MPAA
	last_update	timestamp without time zone	Last update
	special_features	text[]	Special features on the film
	fulltext	tsvector	Film keywords

Links to:

Table	Column Name	Join	Description
language	language_id	film.language_id = lanaguage.language_id	Language ID (FK)

Links from:

Table	Column Name	Join	Description
film_actor	film_id	film.film_id = film_actor.film_id	Film_ID (PK, FK)
inventory	film_id	film.film_id = inventory.film_id	Film_ID (FK)
film_category	film_id	film.film_id = film_category.film_id	Film_ID (PK, FK)

DIMENSION TABLE: FILM_ACTOR

Name	Columns	Data Type	Description
film_actor	actor_id	smallint	Actor ID (PK, FK)
	film_id	smallint	Film ID (PK, FK)
	last_update	timestamp without time zone	Last update

Links to:

Table	Column Name	Join	Description
actor	actor_id	film_actor.actor_id = actor.actor_id	Actor ID (PK)
film	film_id	film_actor.film_id = film.film_id	Film ID (PK)

DIMENSION TABLE: FILM_CATEGORY

Name	Columns	Data Type	Description
film_category	film_id	smallint	Film ID (PK, FK)
	category_id	smallint	Category ID (PK, FK)
	last_update	timestmap without time zone	Last update

Links to:

Table	Column Name	Join	Description
category	category_id	film_category.category_id = category.category_id	Category ID (PK)
film	film_id	film_category.film_id = film.film_id	Film ID (PK)

DIMENSION TABLE: INVENTORY

Name	Columns	Data Type	Description
inventory	inventory_id	integer	Inventory ID (PK)
	film_id	smallint	Film ID (FK)
	store_id	smallint	Store ID
	last_update	timestamp without time zone	Last update

Links to:

Table	Column Name	Join	Description
film	film_id	iventory.film_id = film.film_id	Film ID (PK)

Links from:

Table	Column Name	Join	Description
rental	inventory_id	iventory.inventory_id = rental.inventory_id	Inventory ID (FK)

DIMENSION TABLE: LANGUAGE

Name	Columns	Data Type	Description
language	language_id	integer	Language ID (PK)
	name	character (20)	Language name
	last_update	timestamp without time zone	Last update

Links from:

Table	Column Name	Join	Description
film	language_id	language.language_id = language.language_id	Language ID (FK)

DIMENSION TABLE: STAFF

Name	Columns	Data Type	Description
staff	staff_id	integer	Staff ID (PK)
	first_name	character varying (45)	Staff first name
	last_name	character varying (45)	Staff last name
	address_id	smallint	Staff address unique ID (FK)
	email	character varying (50)	Staff email
	store_id	smallint	Store ID
	active	boolean	If staff is active employee (true/false)
	username	character varying (16)	Staff username
	password	character varying (40)	Staff password
	last_update	timestamp without time zone	Last update
	picture	bytea	Staff picture

Links to:

Table	Column Name	Join	Description
address	address_id	staff.address_id = address.address_id	Address ID (PK)

Links from:

Table	Column Name	Join	Description
rental	staff_id	staff.staff_id = rental.staff_id	Staff ID (FK)
payment	staff_id	staff.staff_id = payment.staff_id	Address ID (FK)
store	address_id	staff.address_id = store.address_id	Address ID (FK

DIMENSION TABLE: STORE

Name	Columns	Data Type	Description
store	store_id	integer	Store ID (PK)
	manager_staff_id	smallint	Store manager unique ID (FK)
	address_id	smallint	Store address unique ID (FK)
	last_update	timestamp without time zone	Last update

Links to:

Table	Column Name	Join	Description
staff	address_id	store.address_id = staff.address_id	Address ID (FK)
address	address_id	store.address_id = address.address_id	Address ID (PK)