Rockbuster Stealth LLC
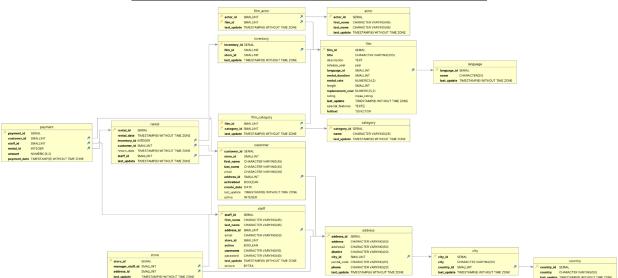# Data Dictionary

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Table of Contents

Rockbuster Entity Relationship Diagram (ERD)

film_actor

actor_id	SMALLINT
film_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

actor

actor_id	SERIAL
first_name	CHARACTER VARYING(45)
last_name	CHARACTER VARYING(45)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

inventory

inventory_id	SERIAL
film_id	SMALLINT
store_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

film

film_id	SERIAL
title	CHARACTER VARYING(255)
description	TEXT
release_year	year
language_id	SMALLINT
rental_duration	SMALLINT
rental_rate	NUMERIC(4,2)
length	SMALLINT
replacement_cost	NUMERIC(5,2)
rating	mpaa_rating
last_update	TIMESTAMP(6) WITHOUT TIME ZONE
special_features	TEXT[]
fulltext	TSVECTOR

language

language_id	SERIAL
name	CHARACTER(20)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

payment

payment_id	SERIAL
customer_id	SMALLINT
staff_id	SMALLINT
rental_id	INTEGER
amount	NUMERIC(5,2)
payment_date	TIMESTAMP(6) WITHOUT TIME ZONE

rental

rental_id	SERIAL
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE
inventory_id	INTEGER
customer_id	SMALLINT
return_date	TIMESTAMP(6) WITHOUT TIME ZONE
staff_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

film_category

film_id	SMALLINT
category_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

category

category_id	SERIAL
name	CHARACTER VARYING(25)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

customer

customer_id	SERIAL
store_id	SMALLINT
first_name	CHARACTER VARYING(45)
last_name	CHARACTER VARYING(45)
email	CHARACTER VARYING(50)
address_id	SMALLINT
activebool	BOOLEAN
create_date	DATE
last_update	TIMESTAMP(6) WITHOUT TIME ZONE
active	INTEGER

staff

staff_id	SERIAL
first_name	CHARACTER VARYING(45)
last_name	CHARACTER VARYING(45)
address_id	SMALLINT
email	CHARACTER VARYING(50)
store_id	SMALLINT
active	BOOLEAN
username	CHARACTER VARYING(16)
password	CHARACTER VARYING(40)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE
picture	BYTEA

address

address_id	SERIAL
address	CHARACTER VARYING(50)
address2	CHARACTER VARYING(50)
district	CHARACTER VARYING(20)
city_id	SMALLINT
postal_code	CHARACTER VARYING(10)
phone	CHARACTER VARYING(20)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

store

store_id	SERIAL
manager_staff_id	SMALLINT
address_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

city

city_id	SERIAL
city	CHARACTER VARYING(50)
country_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

country

country_id	SERIAL
country	CHARACTER VARYING(50)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

Fact Tables

Payment

Key Type	Column	Data Type	Description
Primary	payment_id	SERIAL	Primary key, integer, unique value to identify payment
Foreign	customer_id	SMALLINT	Foreign key, small integer, unique number used to identify the customer
Foreign	staff_id	SMALLINT	Foreign key, small integer, unique number used to identify the personnel member of Rockbuster
Foreign	rental_id	INTEGER	Foreign key, larger integer, unique number used to identify the rental transaction
	amount	NUMERIC(5,2)	Monetary amount, number with max 5 digits, including and 2 digits in fraction part; max value 999.99
	payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links To

Table	Join
customer	Payment.customer_id = customer.customer_id
rental	Payment.rental_id = rental.rental_id
staff	Payment.staff_id = staff.staff_id

Rental

Key Type	Column	Data Type	Description
Primary	rental_id	SERIAL	Primary key, integer, unique number used to identify the rental transaction
	rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec) used to indicate the date and time the rent has started
Foreign	inventory_id	INTEGER	Foreign key, larger integer, unique number used to identify a film or item to be rented by customers
Foreign	customer_id	SMALLINT	Foreign key, small integer, unique number used to identify the customer
	return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec). The date and time set as a deadline when the rental items to be returned
Foreign	staff_id	SMALLINT	Foreign key, small integer, unique number used to identify the personnel member of Rockbuster

	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links From

Table	Join
payment	Payment.rental_id = rental.rental_id

Links To

Table	Join
inventory	Rental.inventory_id = inventory.inventory_id
customer	Rental.customer_id = customer.customer_id
staff	Rental.staff_id = staff.staff_id

Dimension Tables

Inventory

Key Type	Column	Data Type	Description
Primary	inventory_id	SERIAL	Primary key, larger integer, unique number used to identify a film or item to be rented by customers
Foreign	film_id	SMALLINT	Foreign key, integer, unique number used to identify each film; linked to Film table
	store_id	SMALLINT	Small integer, unique number used to identify the store in Rockbuster classification
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links From

Table	Join
rental	Rental.inventory_id = inventory.inventory_id

Links To

Table	Join
film	Inventory.film_id = film.film_id

Film

Key Type	Column	Data Type	Description
Primary	film_id	SERIAL	Primary key, integer, unique number used to identify the rental transaction
	title	CHARACTER VARYING(255)	Film title, fixed-length character with max 255 characters, including spaces

	description	TEXT	Film synopsis with unlimited length
	release_year	year	Integer, the year the film was released
Foreign	language_id	SMALLINT	Foreign key, unique number used to identify the language of film audio; linked to Language table
	rental_duration	SMALLINT	Small integer, the number of days the item was rented for
	rental_rate	NUMERIC(4,2)	Rating, number with max 4 digits, including and 2 digits in fraction part
	length	SMALLINT	Small integer, the length of film (minutes)
	replacement_cost	NUMERIC(5,2)	The cost the customer can be charged in case of lost or damage of rental items. Monetary amount, number with max 5 digits, including and 2 digits in fraction part.
	rating	mpaa_rating	Film rating introduced by Movie Picture Association
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)
	special_features	TEXT[]	Extra videos related to the film available for audience
	fulltext	TSVECTOR	Text-searchable data where we can use a word as an index

Links From

Table	Join
film_actor	Film_actor.film_id = film.film_id
inventory	Inventory.film_id = film.film_id
film_category	Film_category.film_id = film.film_id

Links To

Table	Join
language	Film_category.language_id = language.language_id

Language

Key Type	Column	Data Type	Description
Primary	language_id	SERIAL	Primary key, unique number used to identify the language in this table
	name	CHARACTER(20)	The name of the language of the film audio
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Table	Join
film	Language.language_id = film.language_id

Film Actor

Key Type	Column	Data Type	Description
Composite Key (Primary and Foreign)	actor_id	SMALLINT	Composite key, unique number used to identify the actor in this database. Foreign key connecting link to Actor table.
Composite Key (Primary and Foreign)	film_id	SMALLINT	Composite key, unique number used to identify the film in this database. Foreign key connecting link to Film table.
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links To

Table	Join
actor	Film_actor.actor_id = actor.actor_id
film	Film_actor.film_id = film.film_id

Actor

Key Type	Column	Data Type	Description
Primary	actor_id	SERIAL	Primary key, integer, unique number used to identify the rental transaction
	first_name	CHARACTER VARYING(45)	Actors first name, max 45 characters
	last_name	CHARACTER VARYING(45)	Actors last name, max 45 characters
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links From

Table	Join
film_actor	Actor.actor_id = film_actor.actor_id

Film Category

Key Type	Column	Data Type	Description
Composite Key (Primary and Foreign)	film_id	SMALLINT	Composite key, unique number used to identify the film in this database. Foreign key connecting link to Film table.
Composite Key (Primary and Foreign)	category_id	SMALLINT	Composite key, unique number used to identify the film category in this database. Foreign key connecting link to Category table.

| | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec) |

Links To

Table	Join
film	Film_category.film_id = film.film_id
category	Film_category.category_id = category.category_id

Category

Key Type	Column	Data Type	Description
Primary	category_id	SERIAL	Primary key, unique number used to identify the film category
	name	CHARACTER VARYING(25)	The name of the film category, max 25 characters
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links From

Table	Join
film_category	Category.category_id = film_category.category_id

Customer

Key Type	Column	Data Type	Description
Primary	customer_id	SERIAL	Primary key, unique number used to identify the customer in this database
	store_id	SMALLINT	Small integer, unique number used to identify the store in Rockbuster classification
	first_name	CHARACTER VARYING(45)	Customer's first name, max 45 characters
	last_name	CHARACTER VARYING(45)	Customer's last name, max 45 characters
	email	CHARACTER VARYING(50)	Customer's email. Max 50 characters
Foreign	address_id	SMALLINT	Foreign key, customer's address, linked to Address table
	activebool	BOOLEAN	True or false statement to indicate the customer account status. Boolean data can hold three possible values: true, false or null.
	activebool	DATE	The date when the customer account was created. Temporal date (yyyy-mm-dd)
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)
	active	INTEGER	Integer, a number to indicate whether the customer account is active or not

Links From

Table	Join
rental	Customer.customer_id = rental.customer_id

Links To

Table	Join
address	Customer.address_id = address.address_id

Staff

Key Type	Column	Data Type	Description
Primary	staff_id	SERIAL	Primary key, unique number used to identify the personnel member
	first_name	CHARACTER VARYING(45)	Employee's first name, max 45 characters
	last_name	CHARACTER VARYING(45)	Employee's last name, max 45 characters
Foreign	address_id	SMALLINT	Foreign key, employee's address, linked to Address table
	email	CHARACTER VARYING(50)	Employee's email. Max 50 characters
	store_id	SMALLINT	Small integer, unique number used to identify the store in Rockbuster classification
	active	BOOLEAN	True or false statement to indicate the employee's status. Boolean data can hold three possible values: true, false or null.
	username	CHARACTER VARYING(16)	Employee's username / log-in ID for internal account, max 16 characters
	username	CHARACTER VARYING(40)	Employee's password used to log in to internal account, max 40 characters
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)
	picture	BYTEA	Employee's picture. Bytea data type is used to store raw binary data, e.g. images

Links From

Table	Join
payment	Staff.staff_id = payment.staff_id

Links To

Table	Join
address	Staff.address_id = address.address_id

Store

Key Type	Column	Data Type	Description
Primary	store_id	SERIAL	Primary key, unique number used to identify the store in Rockbuster classification
Foreign	manager_staff_id	SMALLINT	Foreign key, unique number used to identify the manager staff, linked to Staff table
Foreign	address_id	SMALLINT	Foreign key, unique number used to identify the store address, linked to Address table
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links To

Table	Join
staff	Store.staff_id = staff.staff_id
address	Store.address_id = address.address_id

Address

Key Type	Column	Data Type	Description
Primary	adress_id	SERIAL	Primary key, unique number used to identify the address in this table
	address	CHARACTER VARYING(50)	Any address in this database - line1 (street number and street name)
	address2	CHARACTER VARYING(50)	Any address in this database - line2, it can be used as a secondary address designator such as apartment number or building name
	district	CHARACTER VARYING(20)	Any address in this database - district / state / region name
Foreign	city_id	SMALLINT	Foreign key, small integer, unique number used to identify the city in this database, linked to City table
	postal_code	CHARACTER VARYING(10)	Any address in this database - postal code, max 10 characters
	postal_code	CHARACTER VARYING(20)	Phone number related to the address in this database, max 20 characters
	postal_code	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links From

Table	Join
customer	Address.address_id = customer.address_id
staff	Address.address_id = staff.address_id
store	Address.address_id = store.address_id

Table	Join
city	Address.city_id = city.city_id

City

Key Type	Column	Data Type	Description
Primary	city_id	SERIAL	Primary key, unique number used to identify the city in this database
	city	CHARACTER VARYING(50)	City name in the address in this database
Foreign	country_id	SMALLINT	Foreign key, unique number used to identify the country in this database, linked to Country table
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links To

Table	Join
country	City.country_id = country.country_id

Country

Key Type	Column	Data Type	Description
Primary	country_id	SERIAL	Primary key, unique number used to identify the country in this database
	country	CHARACTER VARYING(50)	Country name in the address in this database
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Temporal data, store both date (yyyy-mm-dd) and time (hours:minutes:sec)

Links From

Table	Join
city	Country.country_id = city.country_id