Rockbuster Stealth LLC

Data Dictionary
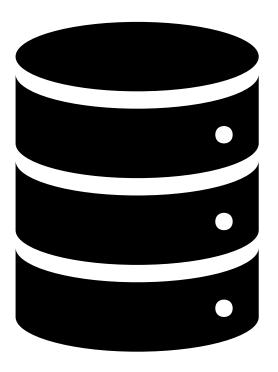
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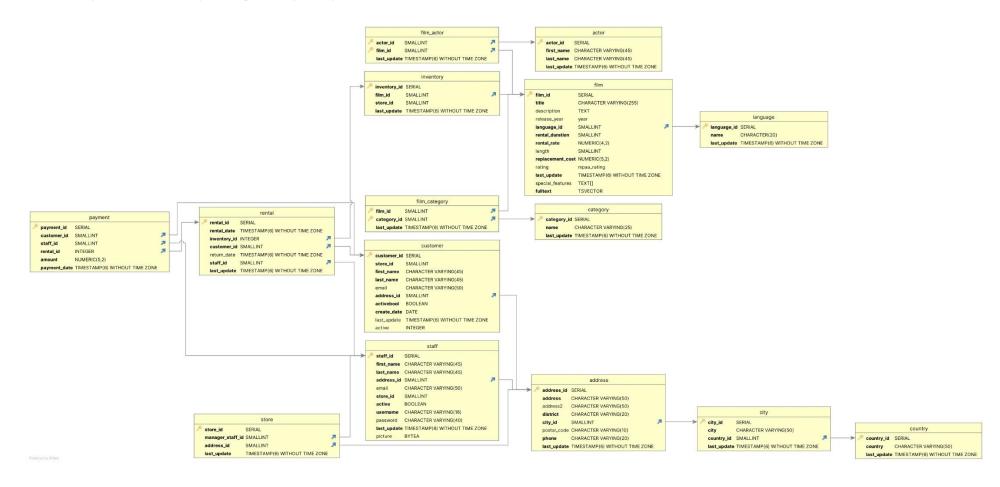
Legend

PK – Primary Key

FK – Foreign Key

1. Rockbuster Stealth LLC

This is a sample documentation – Rockbuster- PostgreSQL Server sample database.

The Rockbuster database supports standard online transaction processing scenarios for a fictitious dvd rental service (Rockbuster Stealth LLC). Scenarios include Payments, Rentals, and Inventory Management.

2. Entity Relationship Diagram (ERD)

film_actor

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

actor

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

inventory

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

film

Column	Type
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

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

film_category

Column	Type
film_id	SMALLINT
category_id	SMALLINT
last_update	TIMESTAMP(8) WITHOUT TIME ZONE

category

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

payment

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

rental

Column	Type
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

customer

Column	Type
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

Column	Type
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

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

store

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

city

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

country

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

3. Tables

3.1 Table: payment

Fact table for customer payment on films rented.

Columns

	Name	Data Type	Description / Attributes
PK	payment_id	Serial	Primary key for payment records. Identity / Auto increment column.
FK	customer_id	Smallint	Unique identification number for the customer. Foreign key to the customer table.
FK	staff_id	Smallint	Unique identification number for the staff. Foreign key to the staff table.
FK	rental_id	Integer	Unique identification number for the rental. Foreign key to the rental table.
	amount	Numeric(5,2)	Amount to be paid by customer for the rental.
	payment_date	Timestamp (6) without time zone	Date and time of payment made.

Links to

Table	Join	Description
customer	payment.customer_id = customer.customer_id	Foreign key constraint referencing customer.customer_id
staff	payment.staff_id = staff.staff_id	Foreign key constraint referencing staff.staff_id
rental	payment.rental_id = rental.rental_id	Foreign key constraint referencing rental.rental_id

Unique Keys

	Columns	Description
PK	payment_id	Primary key constraint
FK	customer_id, staff_id, rental_id	Foreign key constraint

3.2 Table: store

Fact table for store.

Columns

	Name	Data Type	Description / Attributes
PK	store_id	Serial	Primary key for store warehouse. Identity / Auto increment column.
	manager_staff_id	Smallint	Unique identification number for the manager staff.
FK	address_id	Smallint	Unique identification number for the address. Foreign key to the address table.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Links to

Table	Join	Description
staff	store.address_id = staff.address_id	Foreign key constraint referencing staff.address_id
address	store.address_id = address.address_id	Foreign key constraint referencing address.address_id

Unique Keys

	Columns	Description
PK	store_id	Primary key constraint
FK	address_id	Foreign key constraint

3.3 Table: film_actor

Fact table for actors in various films.

Columns

	Name	Data Type	Description / Attributes
PK	actor_id	Smallint	Primary key. Foreign key to the actor.actor_id.
PK	film_id	Smallint	Primary key. Foreign key to the film.film_id.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Table	Join	Description
actor	film_actor.actor_id = actor.actor_id	Foreign key constraint referencing actor.actor_id
film	film_actor.film_id = film.film_id	Foreign key constraint referencing film.film_id

Unique Keys

	Columns	Description
PK	actor_id, film_id	Primary key constraint

3.4 Table: film_category

Fact table for film and its corresponding category.

Columns

	Name	Data Type	Description / Attributes
PK	film_id	Smallint	Primary key. Foreign key to film.film_id.
PK	category_id	Smallint	Primary key. Foreign key to category.category_id.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Links to

Table	Join	Description
film	film_category.film_id = film.film_id	Foreign key constraint referencing film.film_id
category	Film_category.category_id = category.category_id	Foreign key constraint referencing category.category_id

Unique Keys

	Columns	Description
PK	film_id, category_id	Primary key constraint

3.5 Table: rental

Dimension table containing dvd rental information.

Columns

	Name	Data Type	Description / Attributes
PK	rental_id	Serial	Primary key for all rentals. Identity / Auto increment column.
	rental_date	Timestamp (6) without time zone	Date and time of the rental.
FK	inventory_id	Integer	Unique identification number for the inventory. Foreign key to the inventory table.
FK	customer_id	Smallint	Unique identification number for the customer. Foreign key to the customer table.
	return_date	Timestamp (6) without time zone	Date and time of the return.
FK	staff_id	Smallint	Unique identification number for the staff. Foreign key to the staff table.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Links to

Table	Join	Description
inventory	rental.inventory_id = inventory.inventory_id	Foreign key constraint referencing inventory.inventory_id
customer	rental.customer_id = customer.customer_id	Foreign key constraint referencing customer.customer_id
staff	rental.staff_id = staff.staff_id	Foreign key constraint referencing staff.staff_id

Linked from

Table	Join	Description
payment	rental.rental_id = payment.rental_id	Foreign key constraint referencing payment.rental_id

Unique Keys

	Columns	Description
PK	rental_id	Primary key constraint
FK	inventory_id, customer_id, staff_id	Foreign key constraint

3.6 Table: inventory

Dimension table containing IDs of inventory, film, and store.

Columns

	Name	Data Type	Description / Attributes
PK	inventory_id	Serial	Primary key for all dvds in inventory. Identity / Auto increment column.
FK	film_id	Smallint	Unique identification number for the film. Foreign key to the film table.
	store_id	Smallint	Unique identification number for the store.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Links to

Table	Join	Description
film	inventory.film _id = film.film_id	Foreign key constraint referencing film.film_id

Linked from

Table	Join	Description
rental	inventory.inventory _id = rental.inventory_id	Foreign key constraint referencing rental.inventory_id

Unique Keys

	Columns	Description
PK	inventory_id	Primary key constraint
FK	film_id	Foreign key constraint

3.7 Table: actor

Dimension table containing the actor's first and last name.

Columns

	Name	Data Type	Description / Attributes
PK	actor_id	Serial	Primary key for all actors. Identity / Auto increment column.
	first_name	Character varying(45)	Actor's first name.
	last_name	Character varying(45)	Actor's last name.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Linked from

Table	Join	Description
film_actor	actor.actor_id = film_actor.actor_id	Foreign key constraint referencing film_actor.actor_id

Unique Keys

	Columns	Description
PK	actor_id	Primary key constraint

3.8 Table: film

Dimension table containing various details about the film.

Columns

	Name	Data Type	Description / Attributes
PK	film_id	Serial	Primary key for all films. Identity / Auto increment column.
	title	Character varying(255)	Title of the film.
	description	Text	Brief description about the film.
	release_year	Year	The year the film was released.
FK	language_id	Smallint	Unique identification number for the language. Foreign key to the language table.
	rental_duration	Smallint	Number of days for which the film is allowed to be borrowed.
	rental_rate	Numeric(4,2)	Price (in dollars per day) to pay to rent the film .
	length	Smallint	The length (in minutes) of the film.
	replacement_cost	Numeric(5,2)	Price (in dollars) to replace the film.
	rating	MPAA_rating	The MPAA rating of the film
	last_update	Timestamp (6) without time zone	The date and time the record was last updated.
	special_features	Text[]	All the special features contained in the dvd.
	fulltext	Tsvector	Descriptions associated with the film.

Links to

Table	Join	Description
language	film.language_id = language.language_id	Foreign key constraint referencing language.language_id

Table	Join	Description
film_actor	film.film_id = film.film_id	Foreign key constraint referencing film.film_id
inventory	film.film_id = inventory.film_id	Foreign key constraint referencing inventory.film_id
film_category	film.film_id = film_category.film_id	Foreign key constraint referencing film_category.film_id

Unique Keys

	Columns	Description
PK	film_id	Primary key constraint
FK	language_id	Foreign key constraint

3.9 Table: customer

Dimension table containing various information about the customer.

Columns

	Name	Data Type	Description / Attributes
PK	customer_id	Serial	Primary key for all customers. Identity / Auto increment column.
	store_id	Smallint	Unique identification number for the store.
	first_name	Character varying(45)	Customer's first name.
	last_name	Character varying(45)	Customer's last name.
	email	Character varying(50)	Customer's email address.
FK	address_id	Smallint	Unique identification number for customer's address. Foreign key to the address table.
	activebool	Boolean	Boolean values can be true, false, not null.
	create_date	Date	Date and time the customer record was created.
	last_update	Timestamp (6) without time zone	The date and time the record was last updated.
	active	Integer	Customer active status: 1 for active, 0 for inactive

Links to

Table	Join	Description
address	customer.address_id = address.address_id	Foreign key constraint referencing address.address_id

Linked from

Table	Join	Description
rental	customer.customer_id = rental.customer_id	Foreign key constraint referencing rental.customer_id
payment	customer.customer_id = payment.customer_id	Foreign key constraint referencing payment.customer_id

Unique Keys

	Columns	Description
PK	customer_id	Primary key constraint
FK	address_id	Foreign key constraint

3.10 Table: staff

Dimension table containing various information about the staff.

Columns

	Name	Data Type	Description / Attributes
PK	staff_id	Serial	Primary key for all staff. Identity / Auto increment column.
	first_name	Character varying(45)	First name of staff member.
	last_name	Character varying(45)	Last name of staff member.
FK	address_id	Smallint	Unique identification number for staff's address. Foreign key to the address table.
	email	Character varying(50)	Staff member's email address.
	store_id	Smallint	Unique identification number for the store.
	active	Boolean	Boolean values can be true, false, not null.
	username	Character varying(16)	Username for the staff.
	password	Character varying(40)	Password for the staff.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.
	picture	Bytea	Image of the staff

Links to

Table	Join	Description
address	staff.address_id = address.address_id	Foreign key constraint referencing address.address_id

Table	Join	Description
store	staff.store_id = store.store_id	Foreign key constraint referencing store.store _id
rental	staff.staff_id = rental.staff_id	Foreign key constraint referencing rental.staff_id
payment	staff.staff_id = rental.staff_id	Foreign key constraint referencing payment.staff_id

Unique Keys

	Columns	Description
PK	staff_id	Primary key constraint
FK	address_id	Foreign key constraint

3.11 Table: language

Dimension table containing the language of all films.

Columns

	Name	Data Type	Description / Attributes
PK	language_id	Serial	Primary key for all the languages. Identity / Auto increment column.
	name	Character(20)	Name of the language.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Linked from

Table	Join	Description
film	language.language_id = film.language_id	Foreign key constraint referencing film.language_id

Unique Keys

	Columns	Description
PK	language_id	Primary key constraint

3.12 Table: category

Dimension table containing the categories of all films.

Columns

	Name	Data Type	Description / Attributes
PK	category_id	Serial	Primary key for all categories. Identity / Auto increment column.
	name	Character varying(25)	Name of the category.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Linked from

Table	Join	Description
film_category	category.category_id = film_category.category_id	Foreign key constraint referencing film_category.category_id

Unique Keys

	Columns	Description
PK	category_id	Primary key constraint

3.13 Table: address

Dimension table containing customer, staff, and store address.

Columns

	Name	Data Type	Description / Attributes
PK	address_id	Serial	Primary key for all addresses. Identity / Auto increment column.
	address	Character varying(50)	First line of address.
	address2	Character varying(50)	Second line of address.
	district	Character varying(20)	Name of the district.
FK	city_id	Smallint	Unique identification number for the city. Foreign key to the city table.
	postal_code	Character varying(10)	Postal code for the address.
	phone	Character varying(20)	Phone number for the address.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Links to

Table	Join	Description
city	address.city_id = city.city_id	Foreign key constraint referencing city.city_id

Linked from

Table	Join	Description
store	address.address_id = store.address_id	Foreign key constraint referencing store.address_id
staff	address.address_id = staff.address_id	Foreign key constraint referencing staff.address_id
customer	address.address_id = customer.address_id	Foreign key constraint referencing customer.address_id

Unique Keys

	Columns	Description
PK	address_id	Primary key constraint
FK	city_id	Foreign key constraint

3.14 Table: city

Dimension table containing the name of cities.

Columns

	Name	Data Type	Description / Attributes
PK	city_id	Serial	Primary key for all cities. Identity / Auto increment column.
	city	Character varying(50)	Name of the city.
FK	country_id	Smallint	Unique identification number for the country. Foreign key to the country table.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Links to

Table	Join	Description
country	city.country_id = country.country_id	Foreign key constraint referencing country.country_id

Linked from

Table	Join	Description
address	city.city_id = address.city_id	Foreign key constraint referencing address.city_id

Unique Keys

	Columns	Description
PK	city_id	Primary key constraint
FK	country_id	Foreign key constraint

3.15 Table: country

Dimension table containing the name of countries.

Columns

	Name	Data Type	Description / Attributes
PK	country_id	Serial	Primary key for all countries. Identity / Auto increment column.
	country	Character varying(50)	Name of the country.
	last_update	Timestamp (6) without time zone	Date and time the record was last updated.

Linked from

Table	Join	Description
city	country.country_id = city.country_id	Foreign key constraint referencing city.country_id

Unique Keys

	Columns	Description
PK	country_id	Primary key constraint