Data Dictionary

Rockbuster PostgreSQL Database

June 2023

Contents

0. Entities

The following picture shows an overview of the relationships between tables (or entities) of the Rockbuster database. More details about the tables is provided in the sections that follow.
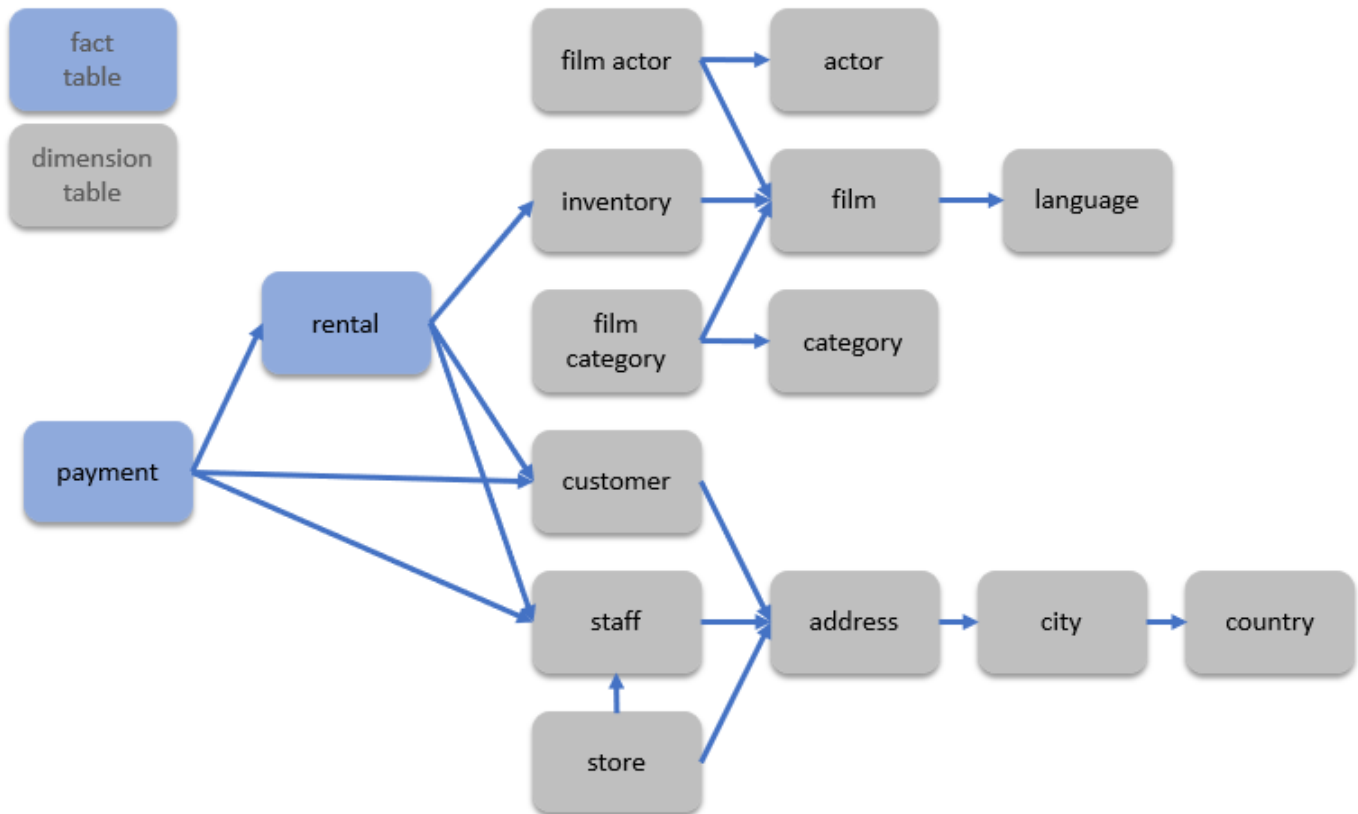

Figure 1 - Entity Relationship Overview - Rockbuster Database

1. Table payment

Fact table	payment	
columns	**data type**	**description**
payment_id	SERIAL *primary key*	system generated unique identifier
customer_id	SMALLINT	foreign key to customer table
staff_id	SMALLINT	foreign key to staff table
rental_id	INTEGER	foreign key to rental table
amount	NUMERIC(5.2)	amount of payment (5 digit integer & 2 decimals)
payment_date	TIMESTAMP(6) WITHOUT TIMEZONE	date & time payment is recorded

Primary Key: payment_id

Links To:

Table	Join
customer	USING(customer_id)
staff	USING(staff_id)
rental	USING(rental_id)

Links From: N/A

2. Table rental

Fact table	rental	
columns	**data type**	**description**
rental_id	SERIAL *primary key*	system generated unique identifier
rental_date	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of rental
inventory_id	INTEGER	foreign key to inventory table
customer_id	SMALLINT	foreign key to customer table
return_date	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of return
staff_id	SMALLINT	foreign key to staff table
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: rental_id

Links To:

Table	Join
inventory	USING(inventory_id)
customer	USING(customer_id)
staff	USING(staff_id)

Links From:

Table	Join
payment	USING(rental_id)

3. Table store

Dimension table	store	
columns	**data type**	**description**
store_id	**SERIAL *primary key***	system generated unique identifier
manager_staff_id	SMALLINT	foreign key to staff table
address_id	SMALLINT	foreign key to address table
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: store_id

Links To:

Table	Join
staff	USING(staff_id)
address	USING(address_id)

Links From:

Table	Join
inventory	USING(store_id)
customer	USING(store_id)
staff	USING(store_id)

4. Table film_actor

Dimension table	film_actor	
columns	**data type**	**description**
actor_id	**SMALLINT *composite primary key***	foreign key to actor table
film_id	**SMALLINT *composite primary key***	foreign key to staff table
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: actor_id + film_id

Links To:

Table	Join
actor	USING(actor_id)
film	USING(film_id)

Links From: N/A

5. Table inventory

Dimension table	inventory		
columns	data type		description
inventory_id	SERIAL *primary key*		system generated unique identifier
film_id	SMALLINT		foreign key to film table
store_id	SMALLINT		foreign key to store table
last_update	TIMESTAMP(6) WITHOUT TIMEZONE		date & time of when record was updated

Primary Key: inventory_id

Links To:

Table	Join
film	USING(film_id)
store	USING(store_id)

Links From:

Table	Join
rental	USING(inventory_id)

6. Table actor

Dimension table	actor		
columns	data type		description
author_id	SERIAL *primary key*		system generated unique identifier
first_name	CHARACTER VARYING (45)		a string of up to 45 characters - first name of actor
last_name	CHARACTER VARYING (45)		a string of up to 45 characters - last name of actor
last_update	TIMESTAMP(6) WITHOUT TIMEZONE		date & time of when record was updated

Primary Key: author_id

Links To: N/A
Links From: N/A

7. Table actor

Dimension table	film	
columns	**data type**	**description**
film_id	SERIAL *primary key*	system generated unique identifier
title	CHARACTER VARYING (255)	title of the film
description	TEXT	free text form to add a summary of the film
release year	year	year the film was released
language_id	SMALLINT	foreign key to language table
rental_duration	SMALLINT	number of days of duration per rental contract
rental_rate	NUMERIC(4.2)	rate per rental contract -- up to 9,999,99
length	SMALLINT	length of film in minutes
replacement_cost	NUMERIC(5.2)	cost of replacing film not returned
rating	mpaa_rating	rating to determine the intended audience
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated
special_features	TEXT	references to extras included in the film
fulltext	TSVECTOR	text search enabled text field

Primary Key: film_id

Links To:

Table	Join
language	USING(language_id)

Links From:

Table	Join
actor	USING(film_id)
inventory	USING(film_id)
film_category	USING(film_id)

8. Table film_category

Dimension table	film_category	
columns	**data type**	**description**
film_id	SMALL_INT *composite primary key*	foreign key to film table
category_id	SMALL_INT *composite primary key*	foreign key to category table
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: film_id + category_id

Links To:

Table	Join
film	USING(film_id)
category	USING(category_id)

Links From: N/A

9. Table category

Dimension table	category	
columns	data type	description
category_id	SMALLINT *primary key*	system generated unique identifier
name	CHARACTER_VARYING(25)	category name/description
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: category_id

Links To: N/A

Links From:

Table	Join
film_category	USING(category_id)

10. Table customer

Dimension table	customer	
columns	data type	description
customer_id	SERIAL *primary key*	system generated unique identifier
store_id	SMALLINT	foreign key to store table
first_name	CHARACTER_VARYING(45)	first name of customer
last_name	CHARACTER_VARYING(45)	last name of customer
email	CHARACTER_VARYING(50)	email of customer
address_id	SMALLINT	foreign key to address table
activebool	BOOLEAN	is this record ACTIVE? (True/Flase)
create_date	DATE	create date of customer
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated
active	INTEGER	

Primary Key: customer_id

Links To:

Table	Join
store	USING(store_id)
address	USING(address_id)

Links From:

Table	Join
payment	USING(customer_id)
rental	USING(customer_id)

11. Table country

Dimension table	country	
columns	**data type**	**description**
country_id	**SERIAL *primary key***	system generated unique identifier
country	CHARACTER_VARYING(50)	country name
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: country_id

Links To: N/A

Links From:

Table	Join
city	USING(country_id)

12. Table film

Dimension table	language	
columns	**data type**	**description**
language_id	**SERIAL *primary key***	system generated unique store identifier
name	CHARACTER_VARYING(20)	language name
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: language_id

Links To: N/A

Links From:

Table	Join
film	USING(language_id)

13. Table staff

Dimension table	staff	
columns	**data type**	**description**
staff_id	**SERIAL *primary key***	system generated unique identifier
first_name	CHARACTER_VARYING(45)	first name of staff
last_name	CHARACTER_VARYING(45)	last name of staff
address_id	SMALLINT	foreign key to address table
email	CHARACTER_VARYING(50)	email of staff
store_id	SMALLINT	store associated with staff
active	BOOLEAN	is this record ACTIVE? (True/Flase)
username	CHARACTER_VARYING(16)	system user name assigned
password	CHARACTER_VARYING(40)	system password for staff
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated
picture	BYTEA	image of staff used for IDs and other purposes

Primary Key: staff_id

Links To:

Table	Join
address	USING(address_id)

Links From:

Table	Join
payment	USING(staff_id)
rental	USING(staff_id)
store	USING(staff_id)

14. Table address

Dimension table	address	
columns	data type	description
address_id	SERIAL *primary key*	system generated unique identifier
address	CHARACTER_VARYING(50)	address line 1
address2	CHARACTER_VARYING(50)	address line 2
district	CHARACTER_VARYING(20)	address district name
city_id	SMALLINT	foreign key to city table
postal_code	CHARACTER_VARYING(10)	postal code - letters & numbers
phone	CHARACTER_VARYING(20)	numbers & letters
last_update	TIMESTAMP(6) WITHOUT TIMEZONE	date & time of when record was updated

Primary Key: address_id

Links To:

Table	Join
city	USING(city_id)

Links From:

Table	Join
staff	USING(address_id)
customer	USING(address_id)
store	USING(address_id)

15. Table city

Dimension table	city		
columns	data type		description
city_id	SERIAL *primary key*		system generated unique identifier
city	CHARACTER_VARYING(50)		city name
country_id	SMALLINT		foreign key to country table
last_update	TIMESTAMP(6) WITHOUT TIMEZONE		date & time of when record was updated

Primary Key: city_id

Links To:

Table	Join
country	USING(country_id)

Links From:

Table	Join
address	USING(city_id)