Rockbuster

Data Dictionary

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1. Entity Relationship Diagram

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	

payment

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

film_category

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

language

🔑 language_id	SERIAL	
name	CHARACTER(20)	
last_update	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	

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	

category

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

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	

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	

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	

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2. Legend

O━━┓	Primary key
O━━┓	Foreign key
O━━┓	Composite key
➜	Links to
➜	Linked from

3. Tables
3.1 Actor

Key	Column	Data type	Description
O━━┓	actor_id	SERIAL	Primary key, unique identifier for the actor
	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 the actors name was last updated

Linked from

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

3.2 Address

Key	Column	Data type	Description
O━━┓	address_id	SERIAL	Primary key for address records
	address	CHARACTER VARYING(50)	First address line
	address2	CHARACTER VARYING(50)	Second address line
	district	CHARACTER VARYING(20)	Name of the district
O━━┓	city_id	SMALLINT	Foreign key for city records
	postal_code	CHARACTER VARYING(10)	Postal code
	phone	CHARACTER VARYING(20)	Phone number
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date 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
→	customer	customer.address_id = address.address_id	Foreign key constraint referencing address.address_id
→	staff	staff.address_id = address.address_id	Foreign key constraint referencing address.address_id
→	store	store.address_id = address.address_id	Foreign key constraint referencing address.address_id

3.3 Category

Key	Column	Data type	Description
O—⚷	category_id	SERIAL	Primary key, unique identifier for the movie category
	name	CHARACTER VARYING(25)	Name of the movie category
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date the record was last updated

Linked from

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

3.4 City

Key	Column	Data type	Description
O—⚷	city_id	SERIAL	Primary key for city records.
	city	CHARACTER VARYING(50)	Name of the city
O—⚷	country_id	SMALLINT	Foreign key for country records.
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date 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	address.city_id = city.city_id	Foreign key constraint referencing city.city_id

3.5 Country

Key	Column	Data type	Description
0—⊩	country_id	SERIAL	Primary key for country records
	country	CHARACTER VARYING(50)	Name of the country
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date the record was last updated

Linked from

	Table	Join	Description
→	city	city.city_id = country.city_id	Foreign key constraint referencing country.city_id

3.6 Customer

Key	Column	Data type	Description
0—⊩	customer_id	SERIAL	Primary key to identify the customer
	store_id	SMALLINT	Identifier for the store
	first_name	CHARACTER VARYING(45)	First name of the customer
	last_name	CHARACTER VARYING(45)	Last name of the customer
	Email	CHARACTER VARYING(50)	Email address of the customer
0—⊩	address_id	SMALLINT	Identifier for address
	activebool	BOOLEAN	Indicates whether they are an active user (true vs. False)
	create_date	DATE	Date they created their account
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp their account was last updated
	Active	INTEGER	Indicates whether they are an active user no=0, yes=1

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	rental.rental_id = customer.rental_id	Foreign key constraint referencing customer.rental_id
→	payment	payment.customer_id = customer.customer_id	Foreign key constraint referencing customer.customer_id

3.7 Film

Key	Column	Data type	Description
O→	film_id	SERIAL	Primary key, identifier for the movie
	Title	CHARACTER VARYING(255)	Movie title
	Description	TEXT	Movie description
	Release_year	year	Movie release year
O→	language_id	SMALLINT	Foreign key, identifier for the language
	rental_duration	SMALLINT	Amount of days the movie was rented
	rantal_rate	NUMERIC(4,2)	Cost of rental
	Length	SMALLINT	Movie length in minutes
	replecement_cost	NUMERIC(5,2)	Cost to replace the movie in case it is not returned
	Rating	mpaa_rating	Age restriction of the movie (MPAA rating)
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp the information about the movie was last updated
	Special_features	TEXT[]	Special features of the movie, such as deleted scenes, commentaries, etc.
	Fulltext	TSVECTOR	Words that are most frequently used to describe the movie

Links to

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

Linked from

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

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

3.8 Film_actor

Key	Column	Data type	Description
🔑	actor_id	SMALLINT	Foreign key, composite key, unique identifier for the actor
🔑	film_id	SMALLINT	Foreign key, composite key, unique, identifier for the film
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp of the last time the record was updated

Links to

	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

3.9 film_category

Key	Column	Data type	Description
🔑	film_id	SMALLINT	Foreign key, composite key, unique identifier for film records
🔑	category_id	SMALLINT	Foreign key, composite key, unique identifier for the film category
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp of the last time a record was 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

3.10 Inventory

Key	Column	Data type	Description
🔑	inventory_id	SERIAL	Primary key for inventory records
🔑	film_id	SMALLINT	Foreign key for film records

Key	Column	Data type	Description
	store_id	SMALLINT	Identifier for the store
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp of the last time the record was 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	rental.inventory_id = inventory.inventory_id	Foreign key constraint referencing inventory.inventory_id

3.11 Language

Key	Column	Data type	Description
O⟶	language_id	SERIAL	Primary key, unique identifier for the movie's language
	name	CHARACTER VARYING(25)	Name of the language
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date the record was last updated

Linked from

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

3.12 Payment

Key	Column	Data type	Description
O⟶	payment_id	SERIAL	Primary key for payment records
O⟶	customer_id	SMALLINT	Foreign key for customer records
O⟶	staff_id	SMALLINT	Foreign key for staff records
O⟶	rental_id	INTEGER	Foreign for rental records
	amount	NUMERIC(5,2)	Cost of the rental
	payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of the payment

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

3.13 Rental

Key	Column	Data type	Description
O—¬	rental_id	SERIAL	Primary key for rental records
	rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp for the rental date
O—¬	inventory_id	INTEGER	Foreign key for inventory item
O—¬	customer_id	SMALLINT	Foreign key for customer records
	return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp of return date
O—¬	staff_id	SMALLINT	Foreign key for staff records
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date 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	payment.rental_id = rental.rental_id	Foreign key constraint referencing rental.rental_id

3.14 Staff

Key	Column	Data type	Description
O—¬	staff_id	SERIAL	Primary key to identify the staff member
	first_name	CHARACTER VARYING(45)	First name of staff member
	last_name	CHARACTER VARYING(45)	Last name of staff member

Key	Column	Data type	Description
0—⚲	address_id	SMALLINT	Identifier for the staff member's address
	Email	CHARACTER VARYING(50)	Email address of staff member
	store_id	SMALLINT	Identifier for the store
	Active	BOOLEAN	Are they currently employed? (True vs. False)
	Username	CHARACTER VARYING(16)	Username of staff member
	Password	CHARACTER VARYING(40)	Password of staff member
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp of the last time the staff member's information was updated
	Picture	BYTEA	Picture of the staff member

Links to

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

Linked from

	Table	Join	Description
→	rental	rental.staff_id = staff.staff_id	Foreign key constraint referencing
→	store	store.manager_staff_id = staff.staff_id	Foreign key constraint referencing
→	payment	payment.staff_id = staff.staff_id	Foreign key constraint referencing

3.15 Store

Key	Column	Data type	Description
0—⚲	store_id	SERIAL	Primary key, Identifier for the store
0—⚲	manager_staff_id	SMALLINT	Identifier for the store manager
0—⚲	address_id	SMALLINT	Identifier for the store's address
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Timestamp of when a record was last updated

Links to

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