Rockbuster Stealth

Data Dictionary



Table of Contents

Legend	2
Schemas	3
Tables	4
1.1 payment	4
1.2 rental	4
1.3 customer	5
1.4 staff	ε
1.5 address	7
1.6 city	8
1.7 country	g
1.8 store	g
1.9 inventory	10
1.10 film	11
1.11 language	12
1.12 category	12
1.13 film_category	13
1.14 actor	14
1.15 film_actor	14
Improvements to address Dirty Data	16

Legend

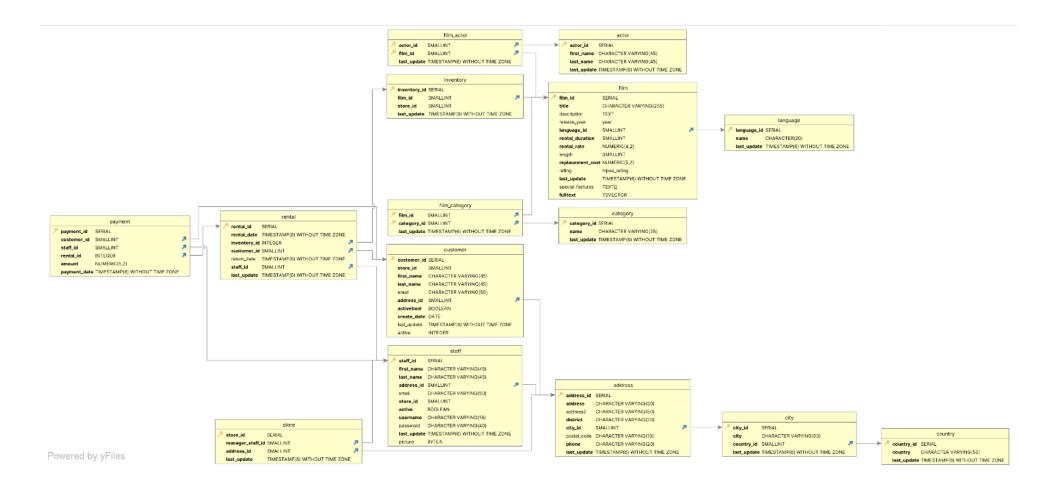


Primary Key

Primary Key relation

 $\stackrel{\longleftarrow}{}$ Foreign Key relation

Schemas



Tables

1.1 payment

Source of payment information when a movie is rented.

	Column	Data Type	Description
•	payment_id	Serial	Unique id for the payment. Primary key.
	customer_id	Small Integer	Unique id for the customer. Foreign key of customer table.
	staff_id	Small Integer	Unique id for the staff. Foreign key of staff table.
	rental_id	Integer	Unique id for the rental. Foreign key of rental table.
	amount	Numeric, 5 digits, 2 decimals	Amount of the payment
	payment_date	Timestamp without Time Zone	Timestamp of payment

Links to

	Table	Join	Title / Name / Description
	customer	payment.customer_id =	Foreign Key constraint referencing
('		customer.customer_id	customer.customer_id
\rightarrow	staff	payment.staff_id = staff.staff_id	Foreign Key constraint referencing staff.staff_id
\rightarrow	rental	payment.rental_id = rental.rental_id	Foreign Key constraint referencing rental.rental_id

Unique Keys

	Columns	Name / Description
3	payment_id	Primary key constraint.
	customer_id	Primary key constraint. Primary Key of customer table
	staff_id	Primary key constraint. Primary key of staff table.
	rental_id	Primary key constraint. Primary key of rental table.

1.2 rental

Source of rental information regarding payment and customer.

Column	Data Type	Description
Column	Data Type	Description

•	rental_id	Serial	Unique id for rental. Primary key
	rental_date	Timestamp without Time Zone	Timestamp when rented
	inventory_id	Integer	Unique id for inventory item. Foreign
			key of inventory table.
	customer_id	Small Integer	Unique id for the customer. Foreign
			key of customer table.
	return_date	Timestamp without Time Zone	Timestamp when last returned
	staff_id	Small Integer	Unique id for the staff member.
			Foreign key of staff table.
	last_update	Timestamp without Time Zone	Timestamp when last updated

	Table	Join	Title / Name / Description
\rightarrow	inventory	rental.inventory_id = inventory.inventory_id	Foreign Key constraint referencing inventory.inventory_id
\rightarrow	customer	rental.customer_id = customer.customer_id	Foreign Key constraint referencing customer.customer_id
\rightarrow	staff	rental.staff_id = staff.staff_id	Foreign Key constraint referencing staff.staff_id

Links from

	Table	Join	Title / Name / Description
, ,	payment	rental.rental_id =	Foreign Key constraint referencing
		payment.rental_id	rental.rental_id

Unique Keys

	Columns	Name / Description
3	rental_id	Primary key constraint.
3	inventory_id	Primary key constraint. Primary Key of inventory table.
	customer_id	Primary key constraint. Primary Key of customer table.
3	staff_id	Primary key constraint. Primary Key of staff table.

1.3 customer

Customer information for payments and rentals.

Column	Data Type	Description

customer_id	Serial	Unique id number. Primary Key for
		customer table
store_id	Small Integer	Unique store id number
first_name	Characters – max 45	First Name of customer
last_name	Characters – max 45	Last Name of customer
email	Characters – max 50	Email of customer
address_id	Small Integer	Unique id for address. Foreign Key for
		address table.
activebool	Boolean	True or False if customer is active
create_date	Date	Date customer entry created
last_update	Timestamp without Time Zone	Timestamp when entry last updated
active	Integer	1 or 0 if customer is active

Table	Join	Title / Name / Description
address	customer.address_id =	Foreign Key constraint referencing
	address.address_id	address.address_id

Links from

	Table	Join	Title / Name / Description
\leftarrow	rental	<pre>customer.customer_id = rental.customer_id</pre>	Foreign Key constraint referencing customer.customer_id
\leftarrow	payment	customer.customer_id = payment.customer_id	Foreign Key constraint referencing customer.customer_id

Unique Keys

Columns Name / Description		Name / Description
	customer_id Primary Key constraint.	
	address_id	Primary key constraint. Primary Key of address table.
3	store_id	Primary key constraint. Primary Key of store table

1.4 staff

Staff information for employees that process payments and rentals.

	Column	Data Type	Description
•	staff_id	Serial	Unique id for staff member. Primary key
	first_name	Characters – max 45	First Name of staff member
	last_name	Characters – max 45	Last Name of staff member

address_id	Small Integer	Unique id for address. Foreign key for
		address table
email	Characters – max 50	Email of staff member
store_id	Small Integer	Unique id for store of staff member.
		Foreign key for store table
active	Boolean	True or false if active
username	Characters – max 16	Staff login username
password	Characters – max 40	Staff login password
last_update	Timestamp without Time Zone	Timestamp when last updated
picture	Binary Strings	Picture of customer

Table	Join	Title / Name / Description
address	staff.address_id =	Foreign Key constraint referencing
	address.address_id	address_id

Links from

	Table	Join	Title / Name / Description
$\leftarrow \prec$	rental	staff.staff_id = rental.staff_id	Foreign Key constraint referencing staff.staff_id
\leftarrow	payment	staff.staff_id = payment.staff_id	Foreign Key constraint referencing staff.staff_id

Unique Keys

Columns		Name / Description
	staff_id Primary key constraint.	
	address_id	Primary key constraint. Primary Key of address table.
•	store_id	Primary key constraint. Primary Key of store table

1.5 address

Contains address data for customers and staff.

	Column	Data Type	Description
•	address_id	Serial	Unique id of address. Primary key
	address	Characters – max 50	The street address
	address2	Characters – max 50	Secondary street address
	district	Characters – max 20	District of address

city_id	Small Integer	Unique id for city. Foreign key for city table
		10.0.0
postal_code	Characters – max 10	The postal code of address
phone	Characters – max 20	Phone number for address
last_update	Timestamp without Time Zone	Timestamp when last updated

Table	Join	Title / Name / Description
city	address.city_id = city.city_id	Foreign Key constraint referencing
		city.city_id

Links from

	Table	Join	Title / Name / Description
$\leftarrow \downarrow$	customer	address_id = customer.address_id	Foreign Key constraint referencing address.address_id
\leftarrow	staff	address.address_id = staff.address_id	Foreign Key constraint referencing address.address_id
\leftarrow	store	address.address_id = store.address_id	Foreign Key constraint referencing address.address_id

Unique Keys

Columns		Name / Description	
9	address_id	Primary key constraint.	
•	city_id	Primary key constraint. Primary Key of city table.	

1.6 city

City information for customer and staff

	Column	Data Type	Description
•	city_id	Serial	Unique id of the city. Primary key
	city	Characters – max 50	The city of the customer or staff
	country_id	Small Integer	Unique id of the country. Foreign key
			of country table
	last_update	Timestamp without Time Zone	Timestamp when last updated

Links to

T. I. I.	1.2.	Title / Normal / Description
lable	Join	Title / Name / Description

(,	country	city.country_id =	Foreign Key constraint referencing
		country.country_id	country.country_id

Links from

	Table	Join	Title / Name / Description
\leftarrow	address	city.city_id = address.city_id	Foreign Key constraint referencing city.city_id

Unique Keys

Columns		Name / Description
•	city_id	Primary key constraint.
•	country_id	Primary key constraint. Primary Key of country table.

1.7 country

Country information for customers and staff.

Column		Data Type	Description
•	country_id	Serial	Unique id of the country. Primary key
	country	Characters – max 50	The country written
	last_update	Timestamp without Time Zone	Timestamp when last updated

Links from

Table	Join	Title / Name / Description
 city	country.country_id =	Foreign Key constraint referencing
	city.country_id	country.country_id

Unique Keys

Columns Name / Description		Name / Description
•	country_id	Primary key constraint.

1.8 store

Source of store identifier and cross references with address and staff.

Column	Data Type	Description
	, ,	· · · · · · · · · · · · · · · · · · ·

	store_id	Serial	Unique id of the store. Primary key
	manager_staff_id	Small Integer	Unique store manager id. Foreign key
			of staff table
	address_id	Small Integer	Unique address id. Foreign key of
			address table.
	last_update	Timestamp without Time Zone	Timestamp when last updated

Table		Join	Title / Name / Description
\rightarrow	staff	store.manager_staff_id = staff.staff_id	Foreign Key constraint referencing staff.staff_id
\rightarrow	address	store.address_id = address.address_id	Foreign Key constraint referencing address.address_id

Unique Keys

	Columns	Name / Description
3	store_id	Primary key constraint.
	manager_staff_id	Primary key constraint. Primary Key of staff table – staff_id
	address_id	Primary key constraint. Primary key of address table.

1.9 inventory

Contains inventory data referencing the film in payment or rental.

Column	Data Type	Description
inventory_id	Serial	Unique id of inventory item. Primary
		Key
film_id	Small Integer	Unique id of film. Foreign key of film
		table
store_id	Small Integer	Unique id of store. Foreign key of
		store table
last_update	Timestamp without Time Zone	Timestamp when last updated

Links to

Table		Join	Title / Name / Description
\rightarrow	film	inventory.film_id = film.film_id	Foreign Key constraint referencing film.film_id

Links from

	Table	Join	Title / Name / Description
\downarrow	rental	inventory.inventory_id = rental.inventory_id	Foreign Key constraint referencing inventory.inventory_id

Unique Keys

	Columns Name / Description		
•	inventory_id	Primary key constraint.	
•	film_id	Primary key constraint. Primary Key of store table	
•	store_id	Primary key constraint. Primary Key of address table.	

1.10 film

Contains information regarding the film rented.

Column	Data Type	Description
film_id	Serial	Unique id for the film. Primary key
title	Characters – max 255	Title of the film
description	Text	Description of the film
release_year	Year	Year the film was released
language_id	Small Integer	Unique id for the language of film.
		Foreign key of language table.
rental_duration	Small Integer	Rental time in days
rental_rate	Numeric, 4 digits, 2 decimals	Rental cost
length	Small Integer	Length of film in hours
replacement_cost	Numeric, 5 digits, 2 decimals	Cost to replace film in stock
rating	mpaa_rating	Official rating of moving (PG, etc.)
last_update	Timestamp without Time Zone	Timestamp when last updated
special_features	Text	List of special features offered with
		the film rental
fulltext	List of Lexemes, search engine	Search terms to look up film

Links to

Table	Join	Title / Name / Description
language	film.language_id =	Foreign Key constraint referencing
	language.language_id	language.language_id

Links from

Table	Join	Title / Name / Description
Tubic	30111	Title / Name / Description

\leftarrow	film_actor	film.film_id = film_actor.film_id	Foreign Key constraint referencing film.film_id
\leftarrow	inventory	film.film_id = inventory.film_id	Foreign Key constraint referencing film.film_id
\leftarrow	film_category	film.film_id = film_category.film_id	Foreign Key constraint referencing film.film_id

Unique Keys

Columns Name / Description		Name / Description
	rental_id	Primary key constraint.
•	language_id Primary key constraint. Primary Key of language table.	

1.11 language

Lists language and their unique identifiers.

	Column	Data Type	Description
•	language_id	Serial	Unique id for language of film. Primary key.
	Name	Characters – max 20	Name of the language
	last_update	Timestamp Without Time Zone	Timestamp when last updated

Links from

Table	Join	Title / Name / Description
 film	language.language_id =	Foreign Key constraint referencing
	film.language_id	language.language_id

Unique Keys

Columns Name / Description		Name / Description
•	language_id	Primary key constraint.

1.12 category

Contains category information associated with unique identifier.

	Column	Data Type	Description
3	category_id	Serial	Unique id for the category of film.
•			Primary key.

name	Characters – max 25	Name of the category
last_update	Timestamp without Time Zone	Timestamp when last updated

Links from

	Table	Join	Title / Name / Description
.)	film_category	category.category_id =	Foreign Key constraint referencing
		film_category.category_id	category.category_id

Unique Keys

Columns Name / Description		Name / Description
3	category_id	Primary key constraint.

1.13 film_category

Cross-reference table mapping connecting film and category tables.

Column		Data Type	Description
	film_id	Small Integer	Unique id for the film. Primary Key
			for film_category and film table
	category_id	Small Integer	Unique category for the film. Primary
•			Key for film_category and category
			table.
	last_update	Timestamp without Time Zone	Timestamp when last updated

Links to

Table		Join	Title / Name / Description
\rightarrow	film	film_category.film_id = film.film_id	Foreign Key constraint referencing film. film_id
\rightarrow	category	film_category.category_id = category.category_id	Foreign Key constraint referencing category.category_id

Unique Keys

	Columns	Name / Description
•	film_id Primary key constraint. Primary Key of film table.	
category_id Primary key constraint. Primary Key of category table		Primary key constraint. Primary Key of category table

1.14 actor

Contains actor information associated with a unique identifier.

	Column	Data Type	Description
•	actor_id	Serial	Unique id of the actor. Primary key.
	first_name	Characters – max 45	First name of actor
	last_name	Characters – max 45	Last name of actor
	last_update	Timestamp Without Time Zone	Timestamp when last updated

Links from

	Table	Join	Title / Name / Description
	film_actor	actor.actor_id. =	Foreign Key constraint referencing
,)		film_actor.actor_id	actor.actor_id

Unique Keys

Columns Name / Description		Name / Description
3	language_id	Primary key constraint.

1.15 film_actor

Cross reference table mapping connecting film and category tables.

	Column	Data Type	Description
3	actor_id	Small Integer	Unique id of the actor. Primary key
			for film_actor and actor table.
3	film_id	Small Integer	Unique id of the film. Primary key for
			film_actor and film table.
	last_update	Timestamp without Time Zone	Timestamp when last updated

Links to

	Table	Join	Title / Name / Description
>	actor	film_actor.actor_id = actor.actor_id	Foreign Key constraint referencing actor.actor_id
<u>}</u>	film	film_category.film_id = film.film_id	Foreign Key constraint referencing film.film_id

Unique Keys

2 1	
Columns	Name / Description
Coldinis	ranic / Description

•	actor_id	Primary key constraint. Primary Key of actor table.
	film_id	Primary key constraint. Primary Key of film table

Improvements to address Dirty Data

Table – country

- 1. Countries are misspelled.
 - a. Example: Runion should be Reunion. Kazakstan should be Kazakhstan.
- 2. Yugoslavia is not a country anymore, at least officially, so should this be reclassified?

Table – city

- 1. City names that use accent marks are not coming through properly.
 - a. Example Santa Brbara d'Oeste should be Santa Bárbara d'Oeste