Rockbuster Data Dictionary

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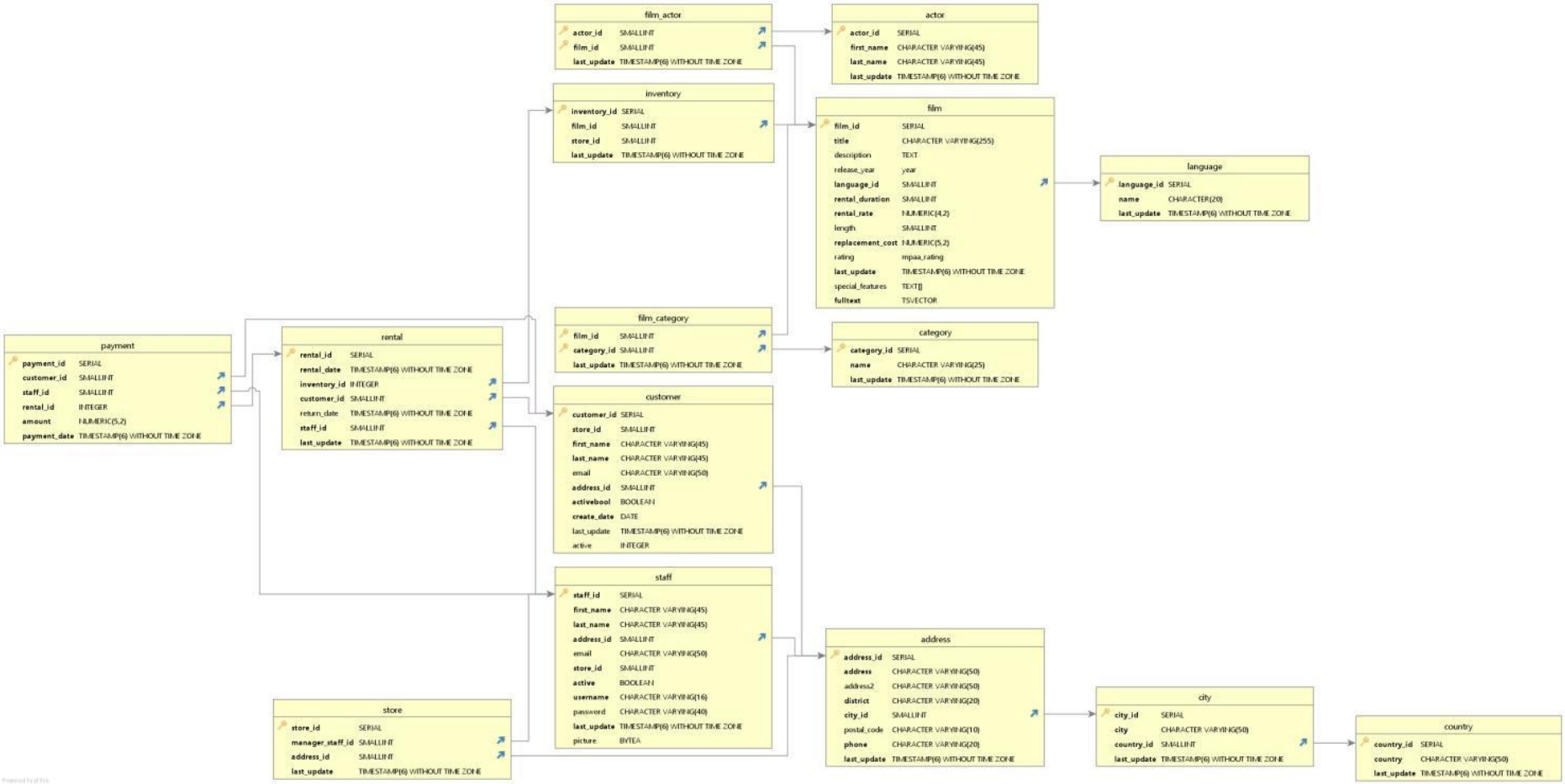
1. Entity Relationship Diagram



2. Schema Description

The Rockbuster database has a snowflake schema: the fact table (“payment”) has several dimension tables that further relate to other dimension tables.

Fact table: “payment”

Dimension tables: “rental”, “store”, “film_actor”, “inventory”, “film_category”, “customer”, “staff”, “actor”, “film”, “category”, “address”, “city”, “country”, “language”.

3. Legend

 Primary key

 Foreign key

4. Tables

4.1 Payment

Columns

Table: Payment		
Column Name	**Data Type**	**Description**
payment_id	SERIAL	Reference number of payment transaction
customer_id	SMALLINT	Reference number of customer
staff_id	SMALLINT	Reference number of employee
rental_id	INTEGER	Reference number of rental
amount	NUMERIC (5,2)	Amount paid for rental
payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of payment

Links to

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

Unique keys

Column	Description
payment_id	Primary key
customer_id	Foreign key
staff_id	Foreign key
rental_id	Foreign key

4.2 Rental

Columns

Table: Rental		
Column Name	**Data Type**	**Description**
rental_id	SERIAL	Reference number of rental
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of rental
inventory_id	INTEGER	Reference number of item on inventory
customer_id	SMALLINT	Reference number of customer
return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date of rental return
staff_id	SMALLINT	Reference number of employee
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update of data entry

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

Links from

Table	Join
payment	payment.rental_id = rental.rental_id

Unique keys

Column	Description
rental_id	Primary key
inventory_id	Foreign key
customer_id	Foreign key
staff_id	Foreign key

4.3 Customer

Columns

Table: Customer		
Column Name	**Data Type**	**Description**
customer_id 	SERIAL	Reference number of customer
store_id	SMALLINT	Reference number of store
first_name	CHARACTER VARYING (45)	First name of customer
last_name	CHARACTER VARYING (45)	Last name of customer
email	CHARACTER VARYING (50)	Email address of customer
address_id 	SMALLINT	Reference number of customer address
activebool	BOOLEAN	Is customer active? (True or false)
create_date	DATE	Date when customer profile was created
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Last update of data entry
active	INTEGER	Is customer active? (1 or 0)

Links to

Table	Join
address	customer.address_id = address.address_id

Links from

Table	Join
payment	payment.customer_id = customer.customer_id
rental	rental.customer_id = customer.customer_id

Unique keys

Column	Description
customer_id	Primary key
address_id	Foreign key

4.4 Store

Columns

Table: Store		
Column Name	**Data Type**	**Description**
store_id	SERIAL	Reference number of store
manager_staff_id	INT2	Reference number of manager
address_id	INT2	Reference number of store address
last_update	TIMESTAMP	Last update of data entry

Links to

Table	Join
staff	store.store_id = staff.store_id
address	store.address_id = address.address_id

Unique keys

Column	Description
store_id	Primary key
manager_staff_id	Foreign key
address_id	Foreign key

4.5 Staff

Columns

Table: Staff		
Column Name	**Data Type**	**Description**
staff_id	SERIAL	Reference number of employee
first_name	VARCHAR	First name of employee
last_name	VARCHAR	Last name of employee
address_id	INT2	Reference number of employee address
email	VARCHAR	Email address of employee
store_id	INT2	Reference number of store
active	BOOL	Is the employee active? (True or false)
username	VARCHAR	Username of employee
password	VARCHAR	Password of employee
last_update	TIMESTAMP	Last update of data entry
picture	BYTEA	Picture of employee

Links to

Table	Join
address	staff.address_id = address.address_id

Links from

Table	Join
payment	payment.staff_id = staff.staff_id
rental	rental.staff_id = staff.staff_id
store	store.store_id = staff.store_id

Unique keys

Column	Description
staff_id	Primary key
address_id	Foreign key
store_id	Foreign key

4.6 Inventory

Columns

Table: Inventory		
Column Name	**Data Type**	**Description**
inventory_id	SERIAL	Reference number of item on inventory
film_id	INT2	Reference number of film
store_id	INT2	Reference number of store
last_update	TIMESTAMP	Last update of data entry

Links to

Table	Join
film	inventory.film_id = film.film_id

Links from

Table	Join
rental	rental.inventory_id = inventory.inventory_id

Unique keys

Column	Description
inventory_id	Primary key
film_id	Foreign key
store_id	Foreign key

4.7 Film

Columns

Table: Film		
Column Name	**Data Type**	**Description**
film_id	SERIAL	Reference number of film
title	VARCHAR	Film title
description	TEXT	Film description
release_year	YEAR	Year when film was released
language_id	INT2	Reference number of language
rental_duration	INT2	Duration of rental
rental_rate	NUMERIC	Price of film rental
length	INT2	Length of film rental
replacement_cost	NUMERIC	Cost to replace film
rating	MPAA_RATING	Film rating
last_update	TIMESTAMP	Last update of data entry
special_features	_TEXT	Special features included (trailers, commentaries, behind the scenes, deleted scenes)
fulltext	TSVECTOR	Film description (key words)

Links to

Table	Join
language	film.language_id = language.language_id

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

Unique keys

Column	Description
film_id	Primary key

4.8 Film_Category

Columns

Table: Film_Category		
Column Name	**Data Type**	**Description**
film_id 	INT2	Reference number of film
category_id	INT2	Reference number of film category
last_update	TIMESTAMP	Last update of data entry

Links to

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

Unique keys

Column	Description
film_id	Primary key
category_id	Primary key

4.9 Category

Columns

Table: Category		
Column Name	**Data Type**	**Description**
category_id	SERIAL	Reference number of film category
name	VARCHAR	Name of film category
last_update	TIMESTAMP	Last update of data entry

Links from

Table	Join
film_category	film_category.category_id = category.category_id

Unique keys

Column	Description
category_id	Primary key

4.10 Film_Actor

Columns

Table: Film_Actor		
Column Name	**Data Type**	**Description**
actor_id 	INT2	Reference number of film actor
film_id 	INT2	Reference number of film
last_update	TIMESTAMP	Last update of data entry

Links to

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

Unique keys

Column	Description
actor_id	Primary key
film_id	Primary key

4.11 Actor

Columns

Table: Actor		
Column Name	**Data Type**	**Description**
actor_id	SERIAL	Reference number of actor
first_name	VARCHAR	First name of actor
last_name	VARCHAR	Last name of actor
last_update	TIMESTAMP	Last update of data entry

Links from

Table	Join
film_actor	film_actor.actor_id = actor.actor_id

Unique keys

Column	Description
actor_id	Primary key

4.12 Address

Columns

Table: Address		
Column Name	**Data Type**	**Description**
address_id	SERIAL	Reference number of address
address	VARCHAR	Street, number
address2	VARCHAR	Additional address details
district	VARCHAR	District
city_id	INT2	Reference number of city
postal_code	VARCHAR	Postal code
phone	VARCHAR	Phone number
last_update	TIMESTAMP	Last update of data entry

Links to

Table	Join
city	address.city_id = city.city_id

Links from

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

Unique keys

Column	Description
address_id	Primary key
city_id	Foreign key

4.13 City

Columns

Table: City		
Column Name	**Data Type**	**Description**
city_id	SERIAL	Reference number of city
city	VARCHAR	Name of city
country_id	INT2	Reference number of country
last_update	TIMESTAMP	Last update of data entry

Links to

Table	Join
country	city.country_id = country.country_id

Links from

Table	Join
address	address.city_id = city.city_id

Unique keys

Column	Description
city_id	Primary key
country_id	Foreign key

4.14 Country

Columns

Table: Country		
Column Name	**Data Type**	**Description**
country_id	SERIAL	Reference number of country
country	VARCHAR	Name of country
last_update	TIMESTAMP	Last update of data entry

Links from

Table	Join
city	city.country_id = country.country_id

Unique keys

Column	Description
country_id	Primary key

4.15 Language

Columns

Table: Language		
Column Name	**Data Type**	**Description**
language_id	SERIAL	Reference number of language
name	BPCHAR	Name of language
last_update	TIMESTAMP	Last update of data entry

Links from

Table	Join
film	film.language_id = language.language_id

Unique keys

Column	Description
language_id	Primary key