Rockbuster Stealth LLC Data Dictionary

Comprehensive Guide to Data Structures and Definitions

June 28, 2024

Allison Weese
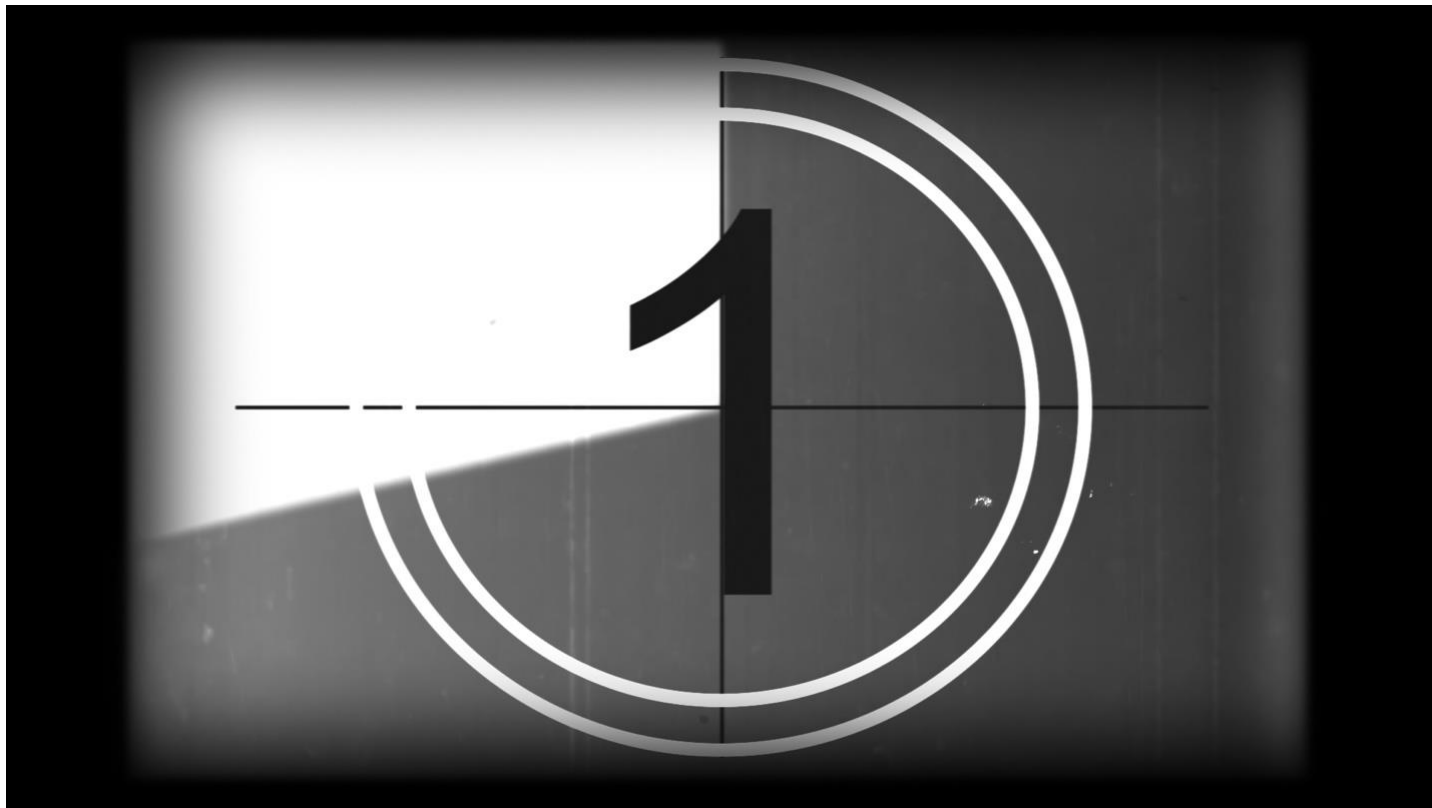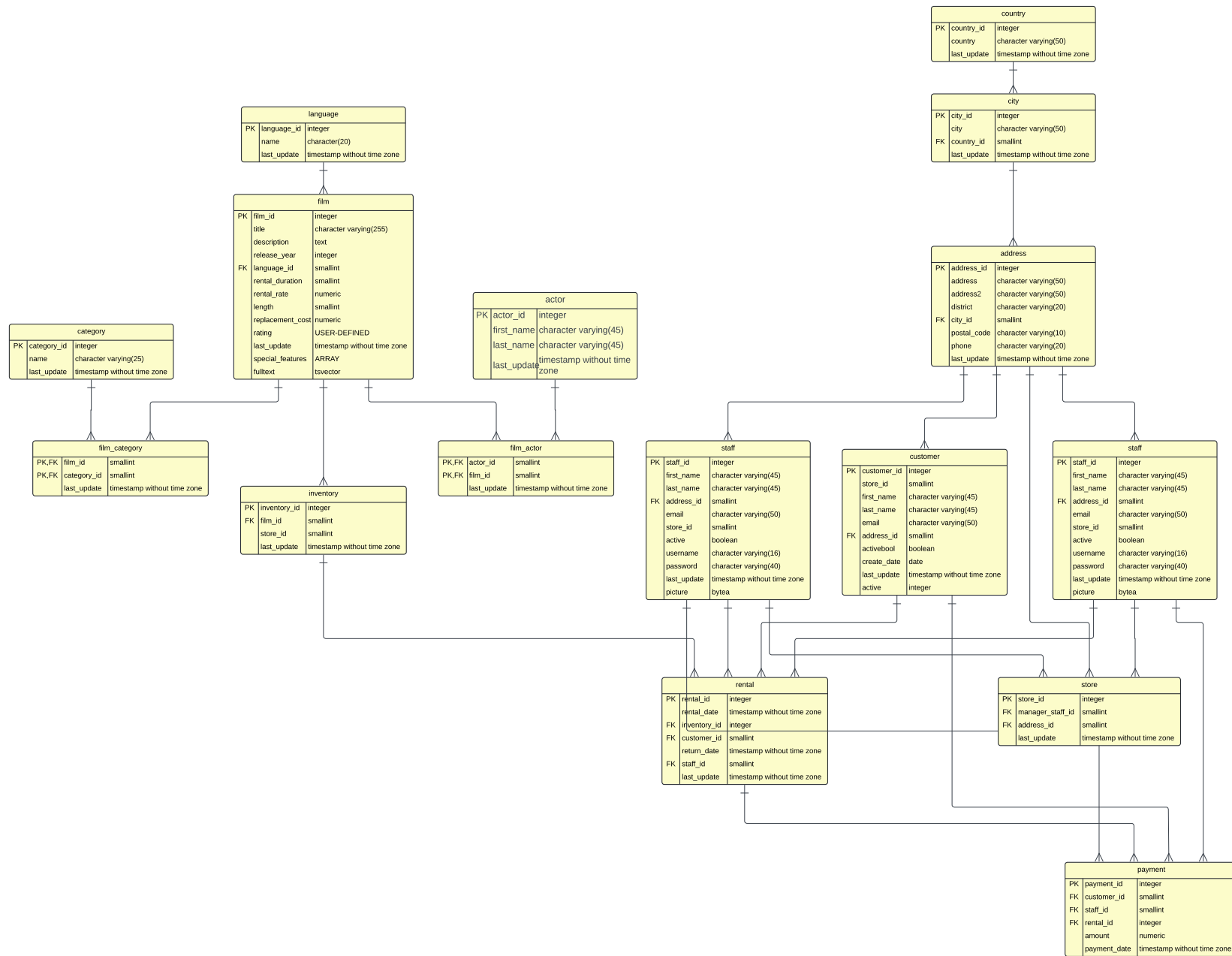
Table of Contents

1. Entity Relationship Diagram (ERD)

country

	Column	Type
PK	country_id	integer
	country	character varying(50)
	last_update	timestamp without time zone

city

	Column	Type
PK	city_id	integer
	city	character varying(50)
FK	country_id	smallint
	last_update	timestamp without time zone

language

	Column	Type
PK	language_id	integer
	name	character(20)
	last_update	timestamp without time zone

film

	Column	Type
PK	film_id	integer
	title	character varying(255)
	description	text
	release_year	integer
FK	language_id	smallint
	rental_duration	smallint
	rental_rate	numeric
	length	smallint
	replacement_cost	numeric
	rating	USER-DEFINED
	last_update	timestamp without time zone
	special_features	ARRAY
	fulltext	tsvector

actor

	Column	Type
PK	actor_id	integer
	first_name	character varying(45)
	last_name	character varying(45)
	last_update	timestamp without time zone

address

	Column	Type
PK	address_id	integer
	address	character varying(50)
	address2	character varying(50)
	district	character varying(20)
FK	city_id	smallint
	postal_code	character varying(10)
	phone	character varying(20)
	last_update	timestamp without time zone

category

	Column	Type
PK	category_id	integer
	name	character varying(25)
	last_update	timestamp without time zone

film_category

	Column	Type
PK,FK	film_id	smallint
PK,FK	category_id	smallint
	last_update	timestamp without time zone

film_actor

	Column	Type
PK,FK	actor_id	smallint
PK,FK	film_id	smallint
	last_update	timestamp without time zone

inventory

	Column	Type
PK	inventory_id	integer
FK	film_id	smallint
	store_id	smallint
	last_update	timestamp without time zone

staff

	Column	Type
PK	staff_id	integer
	first_name	character varying(45)
	last_name	character varying(45)
FK	address_id	smallint
	email	character varying(50)
	store_id	smallint
	active	boolean
	username	character varying(16)
	password	character varying(40)
	last_update	timestamp without time zone
	picture	bytea

customer

	Column	Type
PK	customer_id	integer
	store_id	smallint
	first_name	character varying(45)
	last_name	character varying(45)
	email	character varying(50)
FK	address_id	smallint
	activebool	boolean
	create_date	date
	last_update	timestamp without time zone
	active	integer

staff

	Column	Type
PK	staff_id	integer
	first_name	character varying(45)
	last_name	character varying(45)
FK	address_id	smallint
	email	character varying(50)
	store_id	smallint
	active	boolean
	username	character varying(16)
	password	character varying(40)
	last_update	timestamp without time zone
	picture	bytea

rental

	Column	Type
PK	rental_id	integer
	rental_date	timestamp without time zone
FK	inventory_id	integer
FK	customer_id	smallint
	return_date	timestamp without time zone
FK	staff_id	smallint
	last_update	timestamp without time zone

store

	Column	Type
PK	store_id	integer
FK	manager_staff_id	smallint
FK	address_id	smallint
	last_update	timestamp without time zone

payment

	Column	Type
PK	payment_id	integer
FK	customer_id	smallint
FK	staff_id	smallint
FK	rental_id	integer
	amount	numeric
	payment_date	timestamp without time zone

2. Fact Tables

2.1. Payment

Key	Column	Data type	Description	Links
PK	Payment_id	INT	Unique identifier for each payment	
FK	Customer_id	SMALLINT	Identifier for the customer making the payment	➡ customer
FK	staff_id	SMALLINT	Identifier for the staff processing the payment	➡ staff
FK	rental_id	INT	Identifier for the staff processing the payment	➡ rental
N/A	Amount	NUMERIC	The amount of the payment	
N/A	Payment_date	DATETIME	The date and time when the payment was made	

2.2. Rental

Key	Column	Data type	Description	Links
PK	Rental_id	INT	Unique identifier for each rental	← payment
N/A	Rental_date	TIMESTAMP	The date and time the rental was made	
FK	Inventory_id	INT	Identifier for the inventory item being rented	→ inventory
FK	Customer_id	SMALLINT	Identifier for the customer renting the item	→ customer
N/A	Return_date	TIMESTAMP	The date and time when the rental was returned	
FK	Staff_id	SMALLINT	Identifier for the staff processing the rental	→ staff
N/A	Last_update	TIMESTAMP	The date and time of the last update to the rental record	

3. Dimension Tables

   3.1. Store

Key	Column	Data Type	Description	Links
PK	Store_id	INT	Unique identifier for each store	← inventory ← staff
FK	Manager_staff_id	SMALLINT	Identifier for the manager staff	→ staff
FK	Address_id	SMALLINT	Identifier for the address of the store	→ address
N/A	Last_update	TIMESTAMP	The date and time of the last update to the store record	

3.2. Staff

Key	Column	Data Type	Description	Links
PK	Staff_id	INT	Unique identifier for each staff member	⬅ Rental ⬅ Payment ⬅ Store
N/A	First_name	VARCHAR(45)	The first name of the staff member	
N/A	Last_name	VARCHAR(45)	The last name of the staff member	➡ address
FK	Address_id	SMALLINT	Identifier for the address of the staff member	
N/A	Email	VARCHAR(50)	The email address of the staff member	
N/A	Store_id	SMALLINT	Identifier for the store the staff member works at	
N/A	Active	BOOLEAN	Indicates if the staff member is currently active (1 for active, 0 for inactive)	
N/A	Username	VARCHAR(16)	The username for the staff members login	
N/A	Password	VARCHAR(40)	The password for the staff members login	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the staff record	
N/A	Picture	BYTEA	The photo of the staff member	

3.3. Customer

Key	Column	Data type	Description	Links
PK	Customer_id	INT	Unique identifier for each customer	⬅Rental ⬅payment
FK	Store_id	SMALLINT	Identifier for the store the customer is associated with	
N/A	First_name	VARCHAR(45)	The first name of the customer	
N/A	Last_name	VARCHAR(45)	The last name of the customer	
N/A	Email	VARCHAR(50)	The email address of the customer	
FK	Address_id	SMALLINT	Identifier for the address of the customer	➡address
N/A	Activebool	BOOLEAN	Indicates if the customer is currently active (true for active, false for inactive)	
N/A	Create_date	DATE	The date when the customer record was recorded	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the customer record	
N/A	Active	INT	Indicates if the customer is active or inactive	

3.4. Film_category

Key	Column	Data Type	Description	Links
PK,FK	Film_id	SMALLINT	Unique identifier for each film	film
PK,FK	Category_id	SMALLINT	Unique identifier for each category	category
N/A	Last_update	TIMESTAMP	The date and time of the last update to the film category record	

3.5. Category

Key	Column	Data Type	Description	Links
PK	Category_id	INT	Unique identifier for each category	⬅ Film_category
N/A	Name	VARCHAR(25)	The name of the category	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the category recorde	

3.6. Actor

Key	Column	Data Type	Description	Links
PK	Actor_id	INT	Unique identifier for each actor	⬅ Film_actor
N/A	First_name	VARCHAR(45)	The first name of the actor	
N/A	Last_name	VARCHAR(45)	The last name of the actor	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the actor record	

3.7. Inventory

Key	Column	Data Type	Description	Links
PK	Inventory_id	INT	Unique identifier for each inventory item	⬅ Rental
FK	Film_id	SMALLINT	Identifier for the film associated with the inventory item	➡ Film ➡ store
FK	Store_id	SMALLINT	Identifier for the store where the inventory item is located	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the inventory record	

3.8. Film

Key	Column	Data Type	Description	Links
PK	Film_id	INT	Unique identifier for each film	← Film_actor ← Film_category ← Inventory
N/A	Title	VARCHAR(255)	The title of the film	
N/A	Description	TEXT	The description of the film	
N/A	Release_year	INT	The year the film was released	
FK	Language_id	SMALLINT	Identifier for the language of the film	→ language
N/A	Rental_duration	SMALLINT	Duration (in days) for which the film can be rented	
N/A	Rental_rate	NUMERIC	The rental rate for the film	
N/A	Length	SMALLINT	The length of the film in minutes	
N/A	Replacement_cost	NUMERIC	The cost to replace the film	
N/A	Rating	USER-DEFINED	The rating of the film	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the film record	
N/A	Special_features	ARRARY	Special features included with the film	
N/A	Fulltext	TVSECTOR	Full text search data for the film	

3.9. Address

Key	Column	Data Type	Description	Links
PK	Address_id	INT	Unique identifier for each address	← Customer ← Store ← **Staff**
N/A	Address	VARCHAR(50)	The primary address	
N/A	Address2	VARCHAR(50)	The secondary address (opt)	
N/A	District	VARCHAR(20)	The district or region	
FK	City_id	SMALLINT	Identifier for the city	→ city
N/A	Postal_code	VARCHAR(10)	The postal code	
N/A	Phone	VARCHAR(20)	The phone number	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the address record	

3.10.   Language

Key	Column	Data Type	Description	Links
PK	Language_id	INT	Unique identifier for each language	⬅ film
N/A	Name	VARCHAR(20)	The name of the language	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the language record	

3.11.   City

Key	Column	Data Type	Description	Links
PK	City_id	INT	Unique identifier for each city	⬅ address
N/A	City	VARCHAR(50)	The name of the city	
FK	Country_id	SMALLINT	Identifier for the country	➡country
N/A	Last_update	TIMESTAMP	The date and time of the last update to the city record	

3.12. Country

Key	Column	Data Type	Description	Links
PK	Country_id	INT	Unique identifier for each country	➡ city
N/A	Country	VARCHAR(50)	The name of the country	
N/A	Last_update	TIMESTAMP	The date and time of the last update to the country record	

3.13.   Film_actor

Key	Column	Data Type	Description	Links
FK	Actor_id	SMALLINT	References unique identifier of an actor in the actor table. actor_id and film_id together form a composite key, referencing the primary keys in the actor and film tables respectively	➡actor
FK	Film_id	SMALLINT	References unique identifier of a film in the film table. actor_id and film_id together form a composite key, referencing the primary keys in the actor and film tables respectively	➡film
N/A	Last_update	TIMESTAMP	Timestamp indicating the last time the association between actor and film was updated.	

PK: Private Key

FK: Foreign Key

Links to: ➡

Links From: ⬅