Data Dictionary

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

language
language_id	SERIAL
name	CHARACTER(20)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

payment
payment_id	SERIAL
customer_id	SMALLINT
staff_id	SMALLINT
rental_id	INTEGER
amount	NUMERIC(5,2)
payment_date	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

film_category
film_id	SMALLINT
category_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

category
category_id	SERIAL
name	CHARACTER VARYING(25)
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

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

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

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

store
store_id	SERIAL
manager_staff_id	SMALLINT
address_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

Fact Tables

2.1 Payment Table

	Columns	Data type	Description
🔑	payment_id	serial	Primary key for payment records ID for payment
↗	customer_id	smallint	Foreign key for customer records Unique customer ID
↗	staff_id	smallint	Foreign key for staff records ID for staff
↗	rental_id	integer	Foreign key for rental records ID for rental movie
	amount	numeric(5,2)	Payment amount (up to 5 digits with 2 decimals)
	payment_date	timestamp(6) without timezone	Date of payment

Links To:
- Customer (customer_id)
- Staff (staff_id)
- Rental (rental_id)

Links From:
- None

2.2 Rental Table

	Columns	Data type	Description
🔑	rental_id	serial	Primary key for rental records ID for rental movie
	rental_date	timestamp(6) without timezone	Date of rental
↗	inventory_id	integer	Foreign key for inventory records ID for managing inventory
↗	customer_id	smallint	Foreign key for customer records Unique customer ID
	return_date	timestamp(6) without timezone	Return date

	staff_id	smallint	Foreign key for staff records ID for staff
↗			
	last_update	timestamp(6) without timezone	Date for last status update

Links To:
- Inventory (inventory_id)
- Customer (customer_id)
- Staff (staff_id)

Links From:
- Payment (rental_id)

Dimension Tables

3.1 Store Table

	Columns	Data type	Description
🔑	store_id	serial	Primary key for store records ID for store
↗	manager_staff_id	smallint	Foreign key for staff records ID for manager
↗	address_id	smallint	Foreign key for address records ID for store address
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- Staff (manager_staff_id)
- Address (address_id)

Links From:
- None

3.2 Film Actor Table

	Columns	Data type	Description
🔑	actor_id	smallint	Primary key for actor records ID for movie actor
🔑	film_id	smallint	Primary key for film records ID for movie
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- Film (film_id)
- Actor (actor_id)

Links From:
- None

3.3 Inventory Table

	Columns	Data type	Description
🔑	inventory_id	serial	Primary key for inventory records ID for managing inventory
↗	film_id	smallint	Foreign key for film records ID for movie
	store_id	smallint	ID for store
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- Film (film_id)

Links From:
- None

3.4 Film Category Table

	Columns	Data type	Description
🔑	film_id	smallint	Primary key for film records ID for movie
🔑	category_id	smallint	Primary key for category records ID for movie category
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- Film (film_id)
- Category (category_id)

Links From:
- None

3.5 Customer Table

	Columns	Data type	Description
🔑	customer_id	serial	Primary key for customer records

			Unique customer ID
	store_id	smallint	ID for store
	first_name	character varying (45)	First name, up to 45 characters
	last_name	character varying (45)	Last name, up to 45 characters
	email	character varying (50)	Customer email, up to 50 characters
↗	address_id	smallint	Foreign key for address records ID for customer address
	activebool	boolean	Is customer active (T/F)
	create_date	date	Date of customer creation
	last_update	timestamp(6) without timezone	Date of last status update
	active	integer	Is customer active (1/0)

Links To:
- Address (address_id)

Links From:
- Rental (customer_id)
- Payment (customer_id)

3.6 Staff Table

	Columns	Data type	Description
🔑	staff_id	serial	Primary key for staff records ID for staff
	first_name	character varying (45)	First name, 45 character limit
	last_name	character varying (45)	Last name, 45 character limit
↗	address_id	smallint	Foreign key for address records ID for address
	email	character varying (50)	Email, 50 character limit
	store_id	smallint	ID for store
	active	Boolean	Is staff active (T/F)
	username	character varying (16)	Staff username, 16 character limit
	password	character varying (40)	Password, 40 character limit
	last_update	timestamp(6) without timezone	Date of last status update
	picture	bytea	Photo

Links To:

- Address (address_id)

Links From:
- Store (manager_staff_id)
- Payment (staff_id)
- Rental (staff_id)

3.7 Actor Table

	Columns	Data type	Description
🔑	actor_id	serial	Primary key for actor records ID for actor
	first_name	character varying (45)	First name, 45 character limit
	last_name	character varying (45)	Last name, 45 character limit
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- None

Links From:
- Actor (actor_id)

3.8 Film Table

	Columns	Data type	Description
🔑	film_id	serial	Primary key for film records ID for movie
	title	character varying (255)	Movie title
	description	text	Movie description
	release_year	year	Release year
↗	language_id	smallint	Foreign key for language records ID for movie language
	rental_duration	smallint	Length of rental
	rental_rate	numeric(4,2)	Number of rentals over time
	length	smallint	Movie length
	replacement_cost	numeric(5,2)	Cost of replacement
	rating	mpaa_rating	Movie rating
	last_update	timestamp(6) without timezone	Date of last status update

	special_features	text[]	Special features included
	fulltext	tsvector	Most frequent words

Links To:
- Language (language_id)

Links From:
- Film (film_id)
- Inventory (film_id)
- Film category (film_id)

3.9 Category Table

	Columns	Data type	Description
🔑	category_id	serial	Primary key for category records ID for category
	name	character varying (25)	Name of category
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- None

Links From:
- Category (category_id)

3.10 Address Table

	Columns	Data type	Description
🔑	address_id	serial	Primary key for address records ID for address
	address	character varying (50)	Address, 50 character limit
	address2	character varying (50)	2nd line address, 50 character limit
	district	character varying (20)	District, 20 character limit
↗	city_id	smallint	Foreign key for city records ID for city
	postal_code	character varying (10)	Postal code, 10 character limit

	Columns	Data type	Description
	phone	character varying (20)	Phone number, 20 character limit
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- City (city_id)

Links From:
- Customer (address_id)
- Staff (address_id)
- Store (address_id)

3.11 Language Table

	Columns	Data type	Description
🔑	language_id	serial	Primary key for language records ID for language
	name	character (20)	Name of language
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- None

Links From:
- Language (language_id)

3.12 City Table

	Columns	Data type	Description
🔑	city_id	serial	Primary key for city records ID for city
	city	character varying (50)	Name of city
↗	country_id	smallint	Foreign key for country records ID for country
	last_update	timestamp(6) without timezone	Date of last status update

Links To:

- Country (country_id)

Links From:
- Address (city_id)

3.13 Country Table

	Columns	Data type	Description
🔑	country_id	serial	Primary key for country records ID for country
	country	character varying (50)	Name of country
	last_update	timestamp(6) without timezone	Date of last status update

Links To:
- None

Links From:
- City (city_id)