Rockbuster

Data Dictionary

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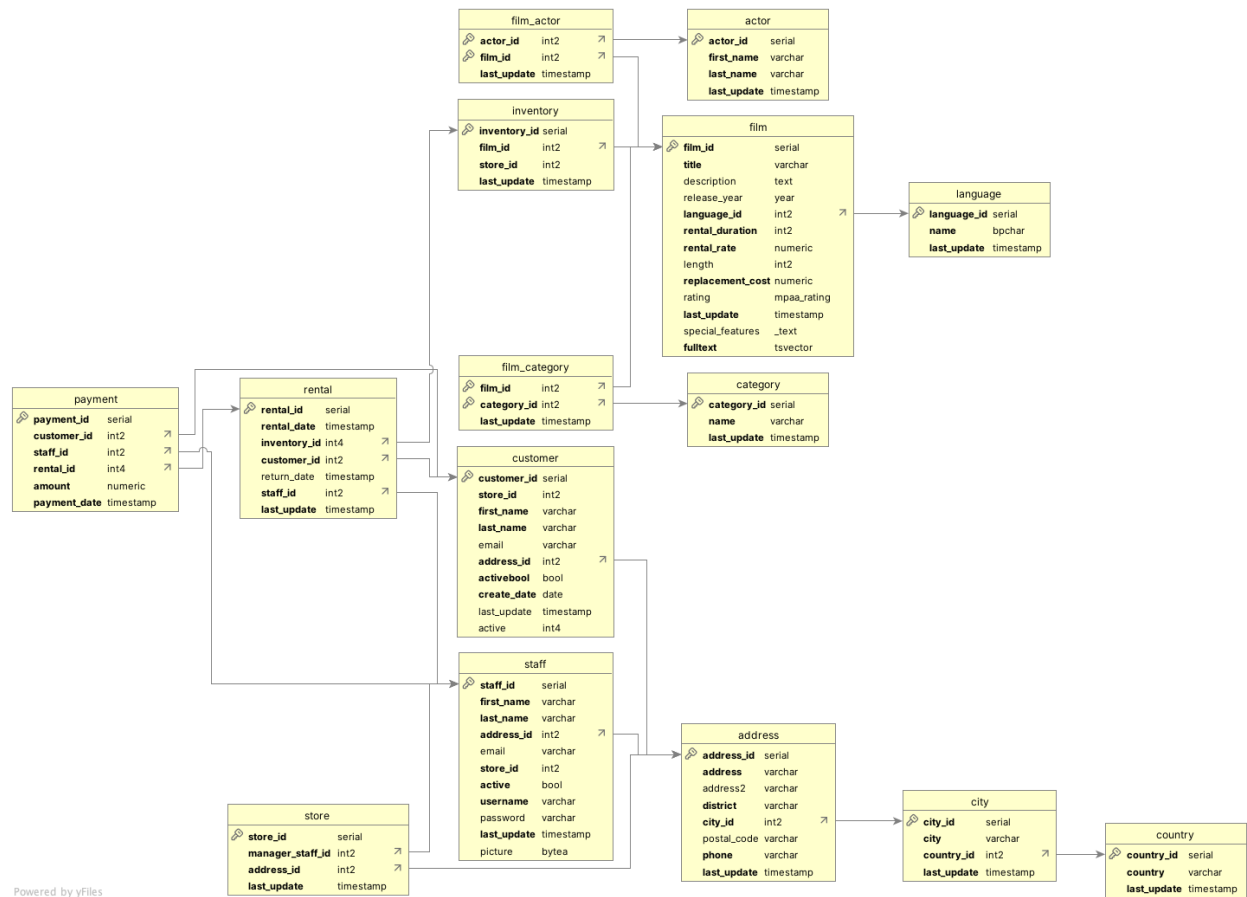
Project: CareerFoundry: Databases & SQL for Analysts

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ENTITY RELATIONSHIP DIAGRAM

film_actor

🔑 **actor_id**	int2	↗
🔑 **film_id**	int2	↗
last_update	timestamp	

actor

🔑 **actor_id**	serial	
first_name	varchar	
last_name	varchar	
last_update	timestamp	

inventory

🔑 **inventory_id**	serial	
film_id	int2	↗
store_id	int2	
last_update	timestamp	

film

🔑 **film_id**	serial	
title	varchar	
description	text	
release_year	year	
language_id	int2	↗
rental_duration	int2	
rental_rate	numeric	
length	int2	
replacement_cost	numeric	
rating	mpaa_rating	
last_update	timestamp	
special_features	_text	
fulltext	tsvector	

language

🔑 **language_id**	serial	
name	bpchar	
last_update	timestamp	

payment

🔑 **payment_id**	serial	
customer_id	int2	↗
staff_id	int2	↗
rental_id	int4	↗
amount	numeric	
payment_date	timestamp	

rental

🔑 **rental_id**	serial	
rental_date	timestamp	
inventory_id	int4	↗
customer_id	int2	↗
return_date	timestamp	
staff_id	int2	↗
last_update	timestamp	

film_category

🔑 **film_id**	int2	↗
🔑 **category_id**	int2	↗
last_update	timestamp	

category

🔑 **category_id**	serial	
name	varchar	
last_update	timestamp	

customer

🔑 **customer_id**	serial	
store_id	int2	
first_name	varchar	
last_name	varchar	
email	varchar	
address_id	int2	↗
activebool	bool	
create_date	date	
last_update	timestamp	
active	int4	

staff

🔑 **staff_id**	serial	
first_name	varchar	
last_name	varchar	
address_id	int2	↗
email	varchar	
store_id	int2	
active	bool	
username	varchar	
password	varchar	
last_update	timestamp	
picture	bytea	

address

🔑 **address_id**	serial	
address	varchar	
address2	varchar	
district	varchar	
city_id	int2	↗
postal_code	varchar	
phone	varchar	
last_update	timestamp	

store

🔑 **store_id**	serial	
manager_staff_id	int2	↗
address_id	int2	↗
last_update	timestamp	

city

🔑 **city_id**	serial	
city	varchar	
country_id	int2	↗
last_update	timestamp	

country

🔑 **country_id**	serial	
country	varchar	
last_update	timestamp	

FACT TABLES

Table Name: payment

Table Type: Fact Table

Description: Contains one record per payment transaction made by a customer.

Primary Key

- payment_id

Foreign Keys (Links From)

- customer_id → customer.customer_id

- staff_id → staff.staff_id

- rental_id → rental.rental_id

Referenced By (Links To)

- None

Columns	Data Type	Description
payment_id	serial	Unique ID for each payment.
customer_id	int2	Customer who made the payment.
staff_id	int2	Staff member who processed the payment.
rental_id	int4	The rental associated with the payment.
amount	numeric	Amount paid.
payment_date	timestamp	When the payment occurred.

Table Name: rental

Table Type: Fact Table

Description: Contains one record per rental transaction, linking customers to inventory items.

Primary Key

- rental_id

Foreign Keys (Links From)

- inventory_id → inventory.inventory_id

- customer_id → customer.customer_id

- staff_id → staff.staff_id

Referenced By (Links To)

- payment.rental_id

Columns	Data Type	Description
rental_id	serial	Unique ID for each rental transaction.
rental_date	timestamp	Date/time when the rental was made.
inventory_id	int4	Specifies which physical film copy was rented.
customer_id	int2	Identifies the customer who rented the film.
return_date	timestamp	When the rental was returned.
staff_id	int2	Staff member who processed the rental.
last_update	timestamp	Last time the row was updated.

Table Name: inventory

Table Type: Fact Table

Description: Contains one record per physical inventory item available for rental.

Primary Key

- inventory_id

Foreign Keys (Links From)

- film_id → film.film_id

- store_id → store.store_id

Referenced By (Links To)

- rental.inventory_id

Columns	Data Type	Description
inventory_id	serial	Unique ID for each physical film copy.
film_id	int2	Identifies the film title for the inventory item.
store_id	int2	Store that owns the physical copy.
last_update	timestamp	Last time the row was updated.

DIMENSION TABLES

Table Name: customer

Table Type: Dimension Table

Description: Contains one record per customer, including personal details, account status, and address linkage.

Primary Key

- customer_id

Foreign Keys (Links From)

- address_id → address.address_id
- store_id → store.store_id

Referenced By (Links To)

- rental.customer_id
- payment.customer_id

Columns	Data Type	Description
customer_id	serial	Unique ID for each customer.
store_id	int2	Store where the customer is registered.
first_name	varchar	Customer's first name.
last_name	varchar	Customer's last name.
email	varchar	Customer email address.
address_id	int2	Customer's address.
activebool	bool	Indicates whether the customer is active.
create_date	date	Date account was created.
last_update	timestamp	Row update timestamp.
active	int4	Additional active flag.

Table Name: film

Table Type: Dimension Table

Description: Contains one record per film, including title, rating, and rental attributes.

Primary Key

- film_id

Foreign Keys (Links From)

- language_id → language.language_id

Referenced By (Links To)

- inventory.film_id

- film_actor.film_id

- film_category.film_id

Columns	Data Type	Description
film_id	serial	Unique ID for each film.
title	varchar	Title of the film.
description	text	Short description of the film.
release_year	year	Year the film was released.
language_id	int2	Language used in the film.
rental_duration	int2	Number of days the film can be rented.
rental_rate	numeric	Cost to rent the film.
length	int2	Runtime of the film in minutes.
replacement_cost	numeric	Cost of replacing the film.
rating	mpaa_rating	MPAA rating.
last_update	timestamp	Last time the row was updated.
special_features	text	Any special features contained.
fulltext	tsvector	Searchable full-text data.

Table Name: category

Table Type: Dimension Table

Description: Contains one record per film category.

Primary Key

- category_id

Foreign Keys (Links From)

- None

Referenced By (Links To)

- film_category.category_id

Columns	Data Type	Description
category_id	serial	Unique ID for each category.
name	varchar	Name of the film category.
last_update	timestamp	Row update timestamp.

Table Name: actor

Table Type: Dimension Table

Description: Contains one record per actor.

Primary Key

- actor_id

Foreign Keys (Links From)

- None

Referenced By (Links To)

- film_actor.actor_id

Columns	Data Type	Description
actor_id	serial	Unique ID for each actor.
first_name	varchar	Actor's first name.
last_name	varchar	Actor's last name.
last_update	timestamp	Row update timestamp.

Table Name: language

Table Type: Dimension Table

Description: Contains one record per language used by films.

Primary Key

- language_id

Foreign Keys (Links From)

- None

Referenced By (Links To)

- film.language_id

Columns	Data Type	Description
language_id	serial	Unique ID for each language.
name	bpchar	Name of the language.
last_update	timestamp	Row update timestamp.

Table Name: staff

Table Type: Dimension Table

Description: Contains one record per staff member.

Primary Key

- staff_id

Foreign Keys (Links From)

- address_id → address.address_id
- store_id → store.store_id

Referenced By (Links To)

- rental.staff_id
- payment.staff_id

Columns	Data Type	Description
staff_id	serial	Unique ID for each staff member.
first_name	varchar	Staff member's first name.
last_name	varchar	Staff member's last name.
address_id	int2	Staff member's address.
email	varchar	Email address.
store_id	int2	Store they work in.
active	bool	Whether the staff member is active.
username	varchar	System username.
password	varchar	System password.
last_update	timestamp	Row update timestamp.
picture	bytea	Staff photo.

Table Name: store

Table Type: Dimension Table

Description: Contains one record per store location.

Primary Key

- store_id

Foreign Keys (Links From)

- address_id → address.address_id

Referenced By (Links To)

- customer.store_id

- staff.store_id

- inventory.store_id

Columns	Data Type	Description
store_id	serial	Unique store ID.
manager_staff_id	int2	Staff member who manages the store.
address_id	int2	Store address.
last_update	timestamp	Row update timestamp.

Table Name: address

Table Type: Dimension Table

Description: Contains one record per physical address.

Primary Key

- address_id

Foreign Keys (Links From)

- city_id → city.city_id

Referenced By (Links To)

- customer.address_id

- staff.address_id

- store.address_id

Columns	Data Type	Description
address_id	serial	Unique ID for each address.
address	varchar	Primary address line.
address2	varchar	Secondary address line.
district	varchar	District or region.
city_id	int2	City foreign key.
postal_code	varchar	Postal code.
phone	varchar	Contact phone number.
last_update	timestamp	Row update timestamp.

Table Name: city

Table Type: Dimension Table

Description: Contains one record per city.

Primary Key

- city_id

Foreign Keys (Links From)

- country_id → country.country_id

Referenced By (Links To)

- address.city_id

Columns	Data Type	Description
city_id	serial	Unique city ID.
city	varchar	Name of the city.
country_id	int2	Country foreign key.
last_update	timestamp	Row update timestamp.

Table Name: country

Table Type: Dimension Table

Description: Contains one record per country.

Primary Key

- country_id

Foreign Keys (Links From)

- None

Referenced By (Links To)

- city.country_id

Columns	Data Type	Description
country_id	serial	Unique country ID.
country	varchar	Name of the country.
last_update	timestamp	Row update timestamp.

BRIDGE TABLES

Table Name: film_actor

Table Type: Bridge Table

Description: Resolves the many-to-many relationship between films and actors.

Primary Key

- (film_id, actor_id)

Foreign Keys (Links From)

- film_id → film.film_id

- actor_id → actor.actor_id

Referenced By (Links To)

- None

Columns	Data Type	Description
actor_id	int2	Actor associated with a film.
film_id	int2	Film associated with an actor.
last_update	timestamp	Row update timestamp.

Table Name: film_category

Table Type: Bridge Table

Description: Resolves the many-to-many relationship between films and categories.

Primary Key

- (film_id, category_id)

Foreign Keys (Links From)

- film_id → film.film_id

- category_id → category.category_id

Referenced By (Links To)

- None

Columns	Data Type	Description
film_id	int2	Links a film to a category.
category_id	int2	Links a category to a film.
last_update	timestamp	Row update timestamp.