Rockbuster Stealth

Database Guide
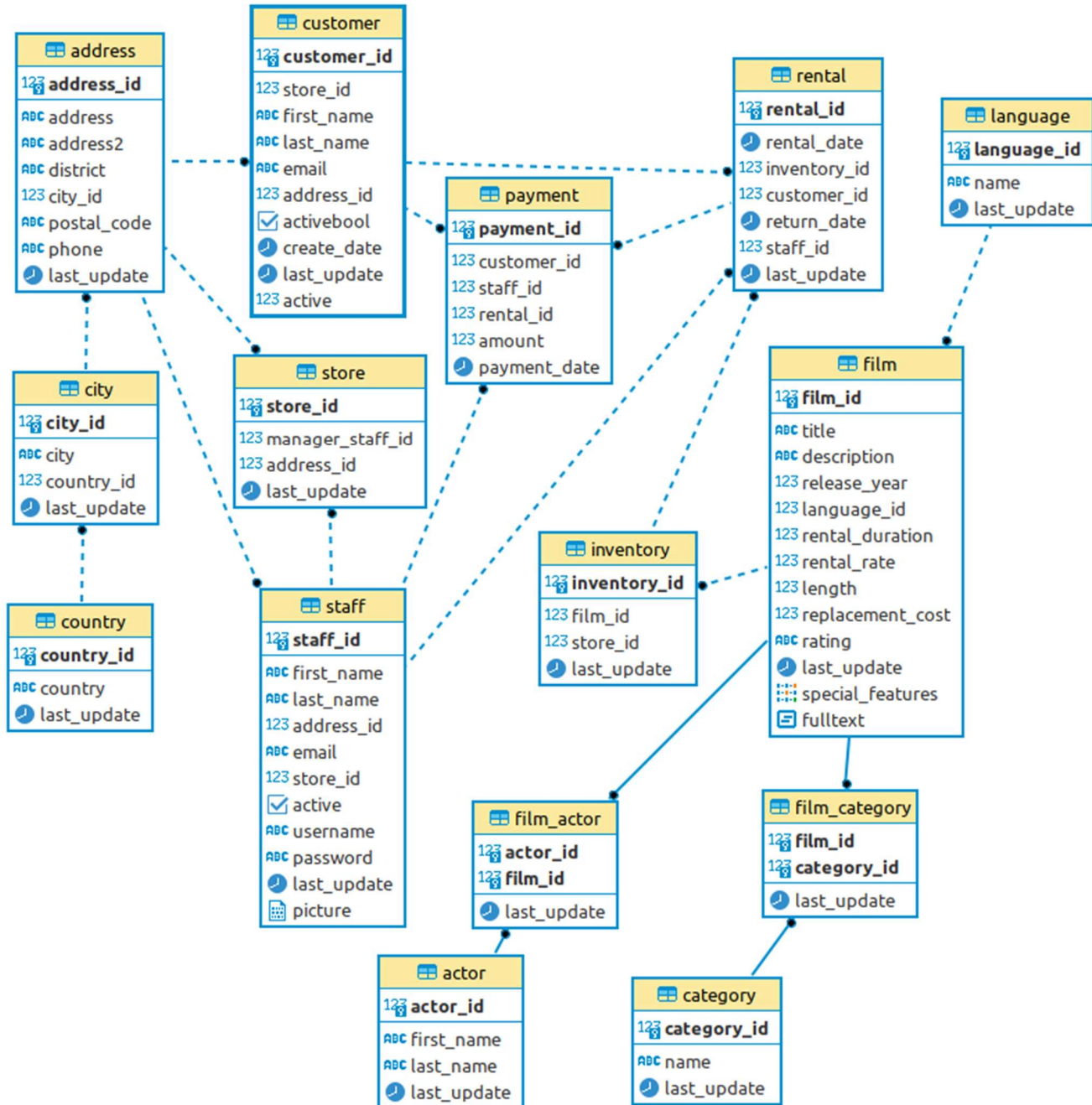
Including Entity Relationship Diagram (ERD) and Database Dictionary

3.10: Presenting SQL Results

Entity Relationship Diagram (ERD)

NB: The store_id column in the store table may be joined with the same column in other tables, but is not actually referenced as a Foreign Key.

address
- 🔢 **address_id**
- ABC address
- ABC address2
- ABC district
- 123 city_id
- ABC postal_code
- ABC phone
- 🕐 last_update

customer
- 🔢 **customer_id**
- 123 store_id
- ABC first_name
- ABC last_name
- ABC email
- 123 address_id
- ☑ activebool
- 🕐 create_date
- 🕐 last_update
- 123 active

rental
- 🔢 **rental_id**
- 🕐 rental_date
- 123 inventory_id
- 123 customer_id
- 🕐 return_date
- 123 staff_id
- 🕐 last_update

language
- 🔢 **language_id**
- ABC name
- 🕐 last_update

payment
- 🔢 **payment_id**
- 123 customer_id
- 123 staff_id
- 123 rental_id
- 123 amount
- 🕐 payment_date

city
- 🔢 **city_id**
- ABC city
- 123 country_id
- 🕐 last_update

store
- 🔢 **store_id**
- 123 manager_staff_id
- 123 address_id
- 🕐 last_update

film
- 🔢 **film_id**
- ABC title
- ABC description
- 123 release_year
- 123 language_id
- 123 rental_duration
- 123 rental_rate
- 123 length
- 123 replacement_cost
- ABC rating
- 🕐 last_update
- ▦ special_features
- ▣ fulltext

inventory
- 🔢 **inventory_id**
- 123 film_id
- 123 store_id
- 🕐 last_update

country
- 🔢 **country_id**
- ABC country
- 🕐 last_update

staff
- 🔢 **staff_id**
- ABC first_name
- ABC last_name
- 123 address_id
- ABC email
- 123 store_id
- ☑ active
- ABC username
- ABC password
- 🕐 last_update
- 🖼 picture

film_actor
- 🔢 **actor_id**
- 🔢 **film_id**
- 🕐 last_update

film_category
- 🔢 **film_id**
- 🔢 **category_id**
- 🕐 last_update

actor
- 🔢 **actor_id**
- ABC first_name
- ABC last_name
- 🕐 last_update

category
- 🔢 **category_id**
- ABC name
- 🕐 last_update

3.10: Presenting SQL Results

Fact table: payment

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	payment_id	integer	A unique ID for each payment transaction.		
Foreign	customer_id	smallint	Customer account number.	customer	
Foreign	staff_id	smallint	Unique ID of employee who processed the payment.	staff	
Foreign	rental_id	integer	A unique ID for each rental occasion.	rental	
	amount	numeric(5,2)	How much money was paid for the rental.		
	payment_date	timestamp without time zone	Date (and time) the payment was made.		

Fact table: rental

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	rental_id	integer	A unique ID for each rental occasion.		payment
	rental_date	timestamp without time zone	Date (and time) the rental was initiated.		
Foreign	inventory_id	integer	A unique ID for the inventory object (presumably a movie).	inventory	
Foreign	customer_id	smallint	Customer account number.	customer	
	return_date	timestamp without time zone	Date (and time) the inventory object was returned to the store.		
Foreign	staff_id	smallint	Unique ID of employee who processed the rental.	staff	
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: actor

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	actor_id	integer	A unique ID for each actor.		film_actor
	first_name	character varying(45)	Given name.		
	last_name	character varying(45)	Surname.		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: address

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	address_id	integer	A unique ID for each address.		customer, staff, store
	address	character varying(50)	First line of an address.		
	address2	character varying(50)	Second line of an address, e.g. apartment number.		
	district	character varying(20)	Possibly neighborhood, borough, arrondissement, etc.		
Foreign	city_id	smallint	A unique ID for each city.	city	
	postal_code	character varying(10)	Postal code.		
	phone	character varying(20)	Telephone number.		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: category

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	category_id	integer	A unique ID for each film category.		film_category
	name	character varying(25)	Category name.		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: city

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	city_id	integer	A unique ID for each city.		address
	city	character varying(50)	Name of city (or town, etc.).		
Foreign	country_id	smallint	A unique ID for each country.	country	
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: country

Keys	Column	Data Type	Description	Linked To	Linked From
Primary	country_id	integer	A unique ID for each country.		city
	country	character varying(50)	Name of country.		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

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Dimension table: customer					
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Primary	customer_id	integer	Customer account number.		payment, rental
	store_id	smallint	A unique ID for each retail location. (Apparently one customer can only be associated with one store. Yuck.)	(store, but not actually linked)	
	first_name	character varying(45)	Given name.		
	last_name	character varying(45)	Surname.		
	email	character varying(50)	Email address.		
Foreign	address_id	smallint	A unique ID for each address.	address	
	activebool	boolean	Whether or not the customer is considered "active."		
	create_date	date	Date the customer record was first entered into the system, in machine-friendly form.		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		
	active	integer	Whether or not the customer is considered "active."		

Dimension table: film					
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Primary	film_id	integer	A unique ID for each film.		film_actor, film_category, inventory
	title	character varying(255)	The title of the film.		
	description	text	A description of the film.		
	release_year	year	The year the film was released.		
Foreign	language_id	smallint	A unique ID for each language.	language	
	rental_duration	smallint	The duration for which the film was rented, presumably in days.		
	rental_rate	numeric(4,2)	The price charged the customer per unit of time (day?) the movie is rented.		
	length	smallint	Film duration (presumably in minutes).		
	replacement_cost	numeric(5,2)	How much it would cost the company to replace films that are never returned.		
	rating	mpaa_rating	Content rating assigned to the film by the Motion Picture Association of America (MPAA).		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		
	special_features	text[]	Any special features of the film (or its media, e.g. DVD extras).		
	fulltext	tsvector	Full Text Search field: presumably search-friendly keyword-based description of the film.		

Dimension table: film_actor					
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Composite Primary and Foreign	actor_id	smallint	A unique ID for each actor.	actor	
Composite Primary and Foreign	film_id	smallint	A unique ID for each film.	film	
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: film_category					
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Composite Primary and Foreign	film_id	smallint	A unique ID for each film.	film	
Composite Primary and Foreign	category_id	smallint	A unique ID for each film category.	category	
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: inventory					
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Primary	inventory_id	integer	A unique ID for the inventory object (presumably a movie).		rental
Foreign	film_id	smallint	A unique ID for each film.	film	
	store_id	smallint	A unique ID for each retail location.	(store, but not actually linked)	
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

Dimension table: language					
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Primary	language_id	integer	A unique ID for each language.		film
	name	character(20)	Name of the language.		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		

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	Dimension table: staff				
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Primary	staff_id	integer	Unique ID of employee.		payment, rental, store
	first_name	character varying(45)	Given name.		
	last_name	character varying(45)	Surname.		
Foreign	address_id	smallint	A unique ID for each address.	address	
	email	character varying(50)	Email address.		
	store_id	smallint	A unique ID for each retail location.	(store, but not actually linked)	
	active	boolean	Whether or not the employee is considered "active."		
	username	character varying(16)	Employee's system username.		
	password	character varying(40)	Employee's system password (hopefully as an encrypted string!).		
	last_update	timestamp without time zone	Date (and time) the record was last updated.		
	picture	bytea	Headshot of employee.		
	Dimension table: store				
Keys	**Column**	**Data Type**	**Description**	**Linked To**	**Linked From**
Primary	store_id	integer	A unique ID for each retail location.		(customer and staff, but not actually linked)
Foreign	manager_staff_id	smallint	The staff_id for the manager of the retail location.	staff	
Foreign	address_id	smallint	A unique ID for each address.	address	
	last_update	timestamp without time zone	Date (and time) the record was last updated.		