



DATA DICTIONARY

ROCKBUSTER DATABASE STRUCTURE

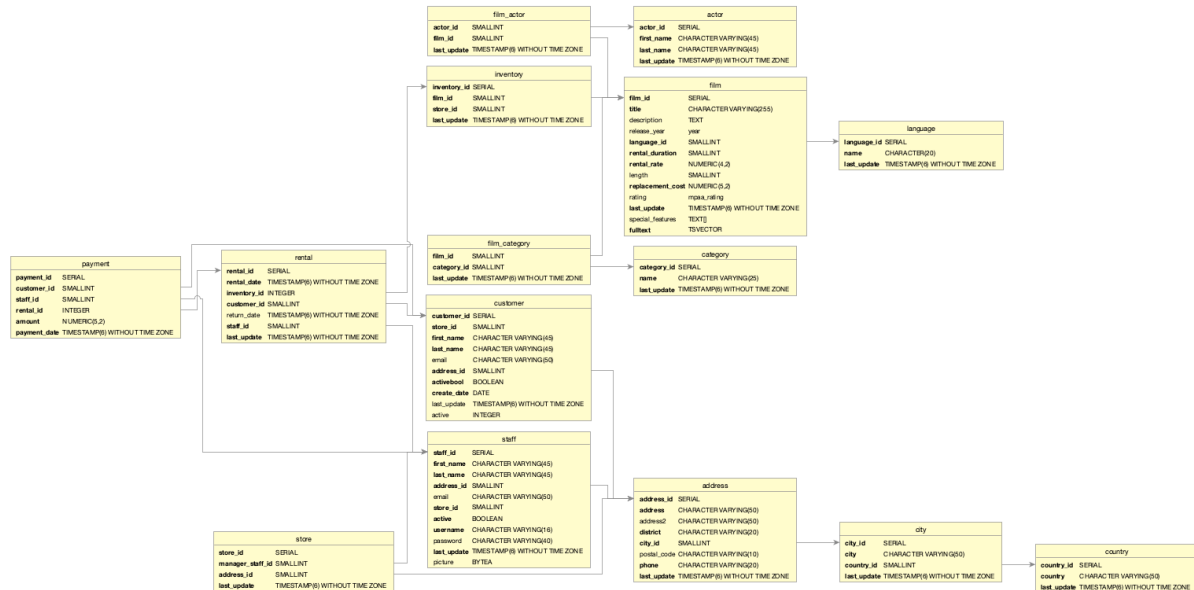
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Entity Relationship Diagram (ERD) & Schema Type

ERD



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Schema Type

This database presents a clear **snowflake schema** because there are **multiple dimensions with sub-dimensions** (e.g. film_category > film > language).

Legend

Icon	Description
	Primary Key
	Secondary Key

Fact Tables

Table: rental

Description: basic data about rentals and keys to other tables with more info









Keys	Columns	Data Type	Description	Links To
	rental_id	SERIAL	Unique ID for each rental	
	rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time movie is rented out	
	inventory_id	INTEGER	Unique ID for that specific movie for keeping records	inventory
	customer_id	SMALLINT	Unique ID of customer who rented the movie	customer
	return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time movie is returned	
	staff_id	SMALLINT	Unique ID of staff member who processed rental	staff
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: payment

Description: info about payments for rentals

Keys	Columns	Data Type	Description	Links To
	payment_id	SERIAL	Unique ID for each payment	
	customer_id	SMALLINT	Unique ID of customer who rented the movie	customer
	staff_id	SMALLINT	Unique ID of staff member who processed rental	staff
	rental_id	INTEGER	Unique ID for each rental	rental
	amount	NUMERIC(5,2)	Amount of transaction	
	payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time of the payment	

Dimension Tables

Table: film_actor

Description: info about actors in films



Keys	Columns	Data Type	Description	Links To
	actor_id	SMALLINT	Unique ID for each actor	
	film_id	SMALLINT	Unique ID for each film	film
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: inventory

Description: info about inventory, i.e. how each item is categorized in Rockbuster's internal database






Keys	Columns	Data Type	Description	Links To
	inventory_id	SERIAL	Unique ID for each exemplar of film	
	film_id	SMALLINT	Unique ID for each film	film
	store_id	SMALLINT	Unique ID for each store	store
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: film_category

Description: info on categories to which each film belongs

Keys	Columns	Data Type	Description	Links To
	film_id	SMALLINT	Unique ID for each film	
	category_id	SMALLINT	Unique ID for each category	category

	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	
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Table: customer

Description: info about Rockbuster customers






Keys	Columns	Data Type	Description	Links To
	customer_id	SERIAL	Unique ID for each customer	
	store_id	SMALLINT	Unique ID for each store	store
	first_name	CHARVAR(45)	First name of customer	
	last_name	CHARVAR(45)	Last name of customer	
	email	CHARVAR(50)	Customer email address	
	address_id	SMALLINT	Unique ID for each address	address
	activebool	BOLEEAN	Whether the cuatomer is active or not (true/false)	
	create_date	DATE	Date customer record was first created	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	
	active	INTEGER	Unclear. Looks like it takes values of 0 or 1 (binary for yes or no? True or false?). Not sure what's the difference with "activebool". Maybe old, redundant field.	

Table: staff

Description: info about Rockbuster staff members

Keys	Columns	Data Type	Description	Links To
	staff_id	SERIAL	Unique ID for each staff member	
	first_name	CHARVAR(45)	First name of staff member	
	last_name	CHARVAR(45)	Last name of staff member	
	address_id	SMALLINT	Unique ID for each address	address


	email	CHARVAR(50)	Staff member email address	
	store_id	SMALLINT	Unique ID for each store	store
	active	BOOLEAN	Whether the staff member is active or not (true/false)	
	username	CHARVAR(16)	Staff member's username	
	password	CHARVAR(40)	Staff member's password	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	
	picture	BYTEA	Picture of staff member (binary string)	

Table: store

Description: info about each Rockbuster store



Keys	Columns	Data Type	Description	Links To
	store_id	SERIAL	Unique ID for each store	
	manager_staff_id	SMALLINT	Unique ID for each manager	
	address_id	SMALLINT	Unique ID for each address	address
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: actor

Description: info about actors in films, sub-table of “film_actor”


Keys	Columns	Data Type	Description	Links To
	actor_id	SMALLINT	Unique ID for each actor	
	first_name	CHARVAR(45)	First name of actor	
	last_name	CHARVAR(45)	Last name of actor	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: film

Description: info about films



Keys	Columns	Data Type	Description	Links To
	film_id	SERIAL	Unique ID for each film	
	title	CHARVAR(255)	Film title	
	description	TEXT	Short description pf plot	
	release_year	year	Film release year	
	language_id	SMALLINT	Unique ID for language	language
	rental_duration	SMALLINT	Duration of rental in days	
	rental_rate	NUMERIC(5,2)	Cost for rental	
	length	SMALLINT	Duration of rental in minutes	
	replacement_cost	NUMERIC(5,2)	Cost for replacing item (if necessary)	
	rating	mpaa_rating	Age rating for the film	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	
	special_features	TEXT[]	Additional content included (e.g. behind the scenes, interviews, etc.)	
	fulltext	TSVECTOR	Textual content from title and description organized in keywords for fast film research	

Table: category

Description: categories to which each film belongs, sub-table of film_category


Keys	Columns	Data Type	Description	Links To
	category_id	SERIAL	Unique ID for each category	
	name	CHARVAR(25)	Name of category in full	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: language

Description: language of each film


Keys	Columns	Data Type	Description	Links To
	language_id	SERIAL	Unique ID for language	
	name	CHAR(20)	Language name in full	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: address

Description: address info for stores, staff and customers




Keys	Columns	Data Type	Description	Links To
	address_id	SERIAL	Unique ID for each address	
	address	CHARVAR(50)	First address line (street, number)	
	address2	CHARVAR(50)	Second address line (if necessary)	
	district	CHARVAR(20)	Name of district	
	city_id	SMALLINT	Unique ID for each city	city
	postal_code	CHARVAR(10)	Postal code of address	
	phone	CHARVAR(20)	Phone number of store	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: city

Description: info about cities in which stores, staff and customers are

Keys	Columns	Data Type	Description	Links To
	city_id	SERIAL	Unique ID for each city	



	city	CHARVAR(50)	Full name of city	
	country_id	SMALLINT	Unique ID for each country	country
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	

Table: country

Description: info about countries in which stores, staff and customers are

Keys	Columns	Data Type	Description	Links To
	country_id	SERIAL	Unique ID for each country	
	country	CHARVAR(50)	Full name of country	
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date/time last updated	