Data Dictionary

ROCKBUSTER STEALTH LLC

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3.10. Presenting SQL Results

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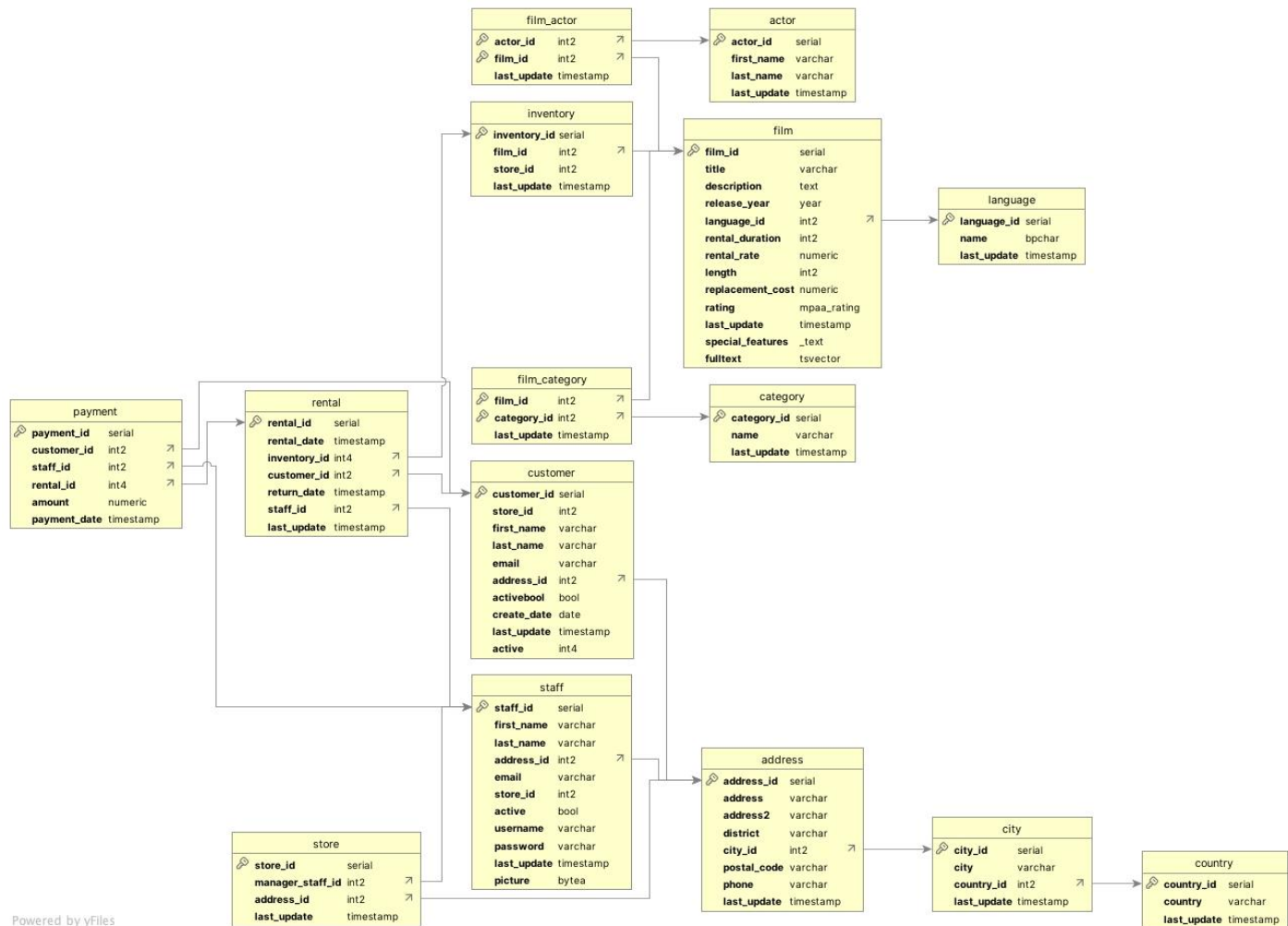
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1. Entity Relationship Diagram – ERD

The **Rockbuster ERD** provides a visual overview of how data is organized and connected in the Rockbuster database. It shows the main entities (tables) such as film, customer, payment, and how they relate to each other through keys (like film_id, customer_id, etc.). The ERD is essential for understanding the database structure and planning efficient SQL queries for analysis.

2. Fact Tables

2.1 Table: Payment

· Key	Columns	Data Type	Description
Primary Key	payment_id	SERIAL	Unique ID for each payment
Foreign Key	Customer_id	INT2	Unique ID assigned to the customer
Foreign Key	Staff_id	INT2	Unique ID assigned to the staff
Foreign Key	Rental_id	INT4	Unique ID associated with rental transaction
	Amount	NUMERIC	Total costs of rental
	Payment_date	TIMESTAMP	Date and Time of rental payment

2.2 Table: Rental

· Key	Columns	Data Type	Description
Primary Key	rental_id	SERIAL	Unique ID associated with the rental transaction
	Rental_date	TIMESTAMP	Date and Time the movie was rented
Foreign Key	inventory_id	INT4	Unique ID assigned to the specific rental unit
Foreign Key	customer_id	INT2	Unique ID assigned to the customer
	return_date	TIMESTAMP	Date and Time the movie was returned
Foreign Key	staff_id	INT2	Unique ID assigned to the staff
	last_update	TIMESTAMP	Date and Time the rental data was updated

3. Dimension Tables

3.1 Table: Staff

Unique Key	Columns	Data Type	Description
Primary Key	Staff_id	SERIAL	Unique staff ID
	First_name	VARCHAR	Staff member's first name
	Last_name	VARCHAR	Staff member's last name
Foreign Key	Address_id	INT2	Staff member's address
	email	VARCHAR	Staff email address
	store_id	INT2	Store ID
	active	BOOL	Staff status (active/ inactive)
	username	VARCHAR	Staff Username
	password	VARCHAR	Staff Login Password
	last_update	TIMESTAMP	Time and date of the last update
	picture	BYTEA	Photo of the staff member

3.2 Table: Film_Actor

· Key	Columns	Data Type	Description
Foreign Key	actor_id	INT2	Actor reference
Foreign Key	film_id	INT2	Film reference
	last_update	TIMESTAMP	Time and Date for the Last update

3.3 Table: Actor

Unique Key	Columns	Data Type	Description
Primary Key	actor_id	SERIAL	Unique actor ID
	first_name	VARCHAR	Actor's first name
	last_name	VARCHAR	Actor's last name
	last_update	TIMESTAMP	Time and Date for the Last update

3.4 Table: Inventory

Unique Key	Columns	Data Type	Description
Primary Key	inventory_id	SERIAL	Unique inventory ID
Foreign Key	film_id	INT2	Film reference ID
	store_id	INT2	Store reference ID
	last_update	TIMESTAMP	Time and Date for the Last update

3.5 Table: Film

Unique Key	Columns	Data Type	Description
Primary Key	film_id	SERIAL	Unique film ID
	title	VARCHAR	Film title
	description	TEXT	Film description
Foreign Key	release_year	YEAR	Year of release
	language_id	INT2	Language reference ID
	rental_duration	INT2	Rental duration in days
	rental_rate	NUMERIC	Rental price
	length	INT2	Movie length in minutes
	replacement_cost	NUMERIC	Cost to replace the movie
	rating	MPAA_RATING	Film Rating (e.g., PG, R)
	last_update	TIMESTAMP	Time and date of the Last update timestamp
	special_features	TEXT	Extra features (e.g., trailers)
	fulltext	TSVECTOR	Searchable text

3.6 Table: Language

· Key	Columns	Data Type	Description
Primary Key	language_id	SERIAL	Unique language ID
	name	BPCHAR	Language name
	last_update	TIMESTAMP	Time and Date for the Last update

3.7 Table: Film_Category

· Key	Columns	Data Type	Description
Primary Key	film_id	INT2	Film reference ID
Foreign Key	category_id	INT2	Category reference ID
	last_update	TIMESTAMP	Time and Date for the Last update

3.8 Table: Category

· Key	Columns	Data Type	Description
Primary Key	category_id	SERIAL	Unique category ID
	name	VARCHAR	Genre (e.g., Action, Comedy)
	last_update	TIMESTAMP	Time and Date for the Last update

3.9 Table: Customer

Unique Key	Columns	Data Type	Description
Primary Key	customer_id	SERIAL	Unique customer ID
	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	Email address
Foreign Key	address_id	INT2	Address reference
	Activebool	BOOL	Indicates if the customer is active
	create_date	DATE	Date the customer was created
	last_update	TIMESTAMP	Last update timestamp
	active	INT4	Active status indicator

3.10   Table: Store

Unique Key	Columns	Data Type	Description
Primary Key	store_id	SERIAL	Unique store ID
Foreign Key	manager_staff_id	INT2	Manager assigned to the store
Foreign Key	address_id	INT2	Store's address reference
	last_update	TIMESTAMP	Time and Date for the Last update

3.11   Table: Address

· Key	Columns	Data Type	Description
Primary Key	address_id	SERIAL	Unique address ID
	Address	VARCHAR	Street address
	address2	VARCHAR	Additional address info
	District	VARCHAR	District or region
Foreign Key	city_id	INT2	City reference
	postal_code	VARCHAR	ZIP or postal code
	Phone	VARCHAR	Contact phone number
	last_update	TIMESTAMP	Time and Date of the Last update timestamp

3.12   Table: City

· Key	Columns	Data Type	Description
Primary Key	city_id	SERIAL	Unique city ID
	city	VARCHAR	City name
Foreign Key	country_id	INT2	Country reference
	last_update	TIMESTAMP	Time and Date for the Last update

3.13   Table: Country

· Key	Columns	Data Type	Description
Primary Key	country_id	SERIAL	Unique country ID
	country	VARCHAR	Country name
	last_update	TIMESTAMP	Time and Date for the Last update