Rockbuster

Data Dictionary
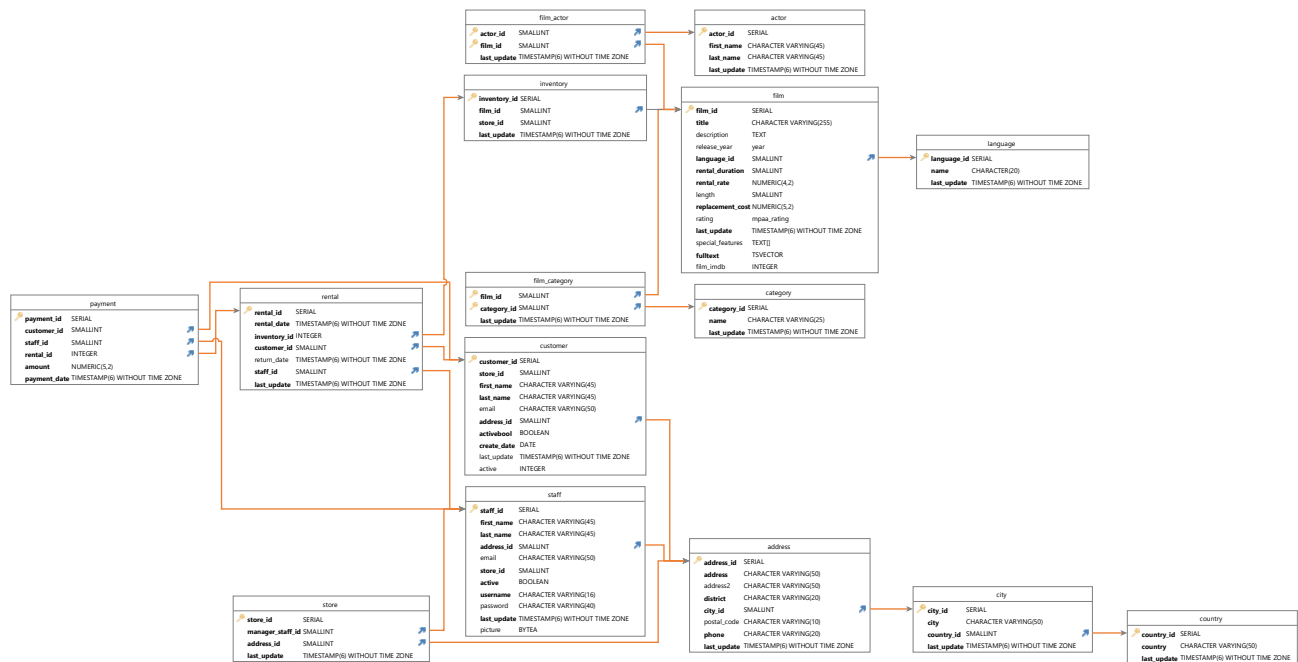
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1. Entity Relation Diagram

You can download Rockbuster's database here:

- Download the Rockbuster data set
- Download PostgreSQL Database (for Windows, macOS X, and Linux)

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2. Legend

🔑	Primary Key
🔑	Foreign Key
🔑	Candidate Key
→	Links to
→	Linked from

3.Tables

3.1 Film_actor (Fact table)

Shows actor's id and film id with time stamp.

	Column	Data Type	Description
🔑 🔑	actor_id	SMALLINT	The actor's id number
🔑 🔑	film_id	SMALLINT	The film's id number
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
→	actor	film_actor.actor_id = actor.actor_id	Foreign key constraint referencing actor.actor_id

	film	film_actor.film_id = film.film_id	Foreign key constraint referencing film.film_id
→			

3.2 Inventory (Dimension table)

Contains film inventory with film and store id.

	Column	Data Type	Description
🔑	inventory_id	SERIAL	Inventory transaction id number
🔑	film_id	SMALLINT	The films id number
	store_id	SMALLINT	The store's id number
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
→	film	inventory.film_id = film.film_id	Foreign key constraint referencing film.film_id

Linked from

	Table	Join	Description
→	rental	rental.inventory_id = inventory.inventory_id	Primary key constraint referencing inventory.inventory_id

3.3 Film_category (Dimension table)

Contains film and category ids.

	Column	Data Type	Description
🔑🔑	film_id	SMALLINT	The films id number
🔑🔑	category_id	SMALLINT	The film's category id

	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
→	film	film_category.film_id = film.film_id	Foreign key constraint referencing film.film_id
→	category	film_category.category_id = category.category_id	Foreign key constraint referencing category.category_id

3.4 Film_category (Dimension table)

Contains customer id and account information.

	Column	Data Type	Description
🔑🔑	customer_id	SERIAL	The customer's id number
	store_id	SMALLINT	The store's id number
	first_name	CHARACTER VARYING(45)	First name of customer
	last_name	CHARACTER VARYING(45)	Last name of customer
	email	CHARACTER VARYING(50)	Email of customer
🔑	address_id	SMALLINT	Address of customer
	activebool	BOOLEAN	Is the customer active or not
	create_date	DATE	Date customer created
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record
	active	INTEGER	Is the customer active or not integer

Links to

	Table	Join	Description
→	address	customer.address_id = address.address_id	Foreign key constraint referencing address.address_id

Linked from

	Table	Join	Description
→	rental	rental.rental_id = customer.rental_id	Foreign key constraint referencing customer.rental_id
→	payment	payment.customer_id = customer.customer_id	Foreign key constraint referencing customer.customer_id

3.5 Staff (Dimension table)

Contains store staff information.

	Column	Data Type	Description
🔑🔑	staff_id	SERIAL	Staff id who processed transaction
	first_name	CHARACTER VARYING(45)	First name of customer
	last_name	CHARACTER VARYING(45)	Last name of customer
🔑	address_id	SMALLINT	Address of customer
	activebool	BOOLEAN	Is the customer active or not
	username	CHARACTER VARYING(16)	Staff's username
	password	CHARACTER VARYING(40)	Staff's password
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record
	picture	BYTEA	Picture of staff

Links to

	Table	Join	Description
→	address	staff.address_id = address.address_id	Foreign key constraint referencing address.address_id

Linked from

	Table	Join	Description
→	rental	rental.staff_id = staff.staff_id	Foreign key constraint referencing

	store	store.manager_staff_id = staff.staff_id	d Foreign key constraint referencing
	payment	payment.staff_id = staff.staff_id	Foreign key constraint referencing

3.6 Rental (Dimension table)

Contains film rental information with inventory and customer ids.

	Column	Data Type	Description
🔑🔑	rental_id	SERIAL	Rental id number
	rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of rental entry
🔑	inventory_id	SERIAL	Inventory transaction id number
🔑	customer_id	SMALLINT	The customer's id number
	return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of rental return entry
🔑	staff_id	SERIAL	Staff id who processed transaction
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
	inventory	rental.inventory.id = inventory.inventory_id	Foreign key constraint referencing inventory.inventory_id
	customer	rental.customer_id = customer.customer_id	Foreign key constraint referencing customer.customer_id
	staff	rental.staff_id = staff.staff_id	Foreign key constraint referencing staff.staff_id

Linked from

	Table	Join	Description
	paymeny	payment.rental_id = rental.rental_id	Foreign key constraint referencing rental.rental_id

3.7 Store (Dimension table)

Contains store staff and location information.

	Column	Data Type	Description
🔑	store_id	SMALLINT	The store's id number
🗝️	manager-staff-id	SMALLINT	Manager's id number
🗝️	address_id	SMALLINT	Address of store id
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
→	staff	store.manager_staff_id = staff.staff_id	Foreign key constraint referencing staff.staff_id
→	address	store.address_id = address.address_id	d Foreign key constraint referencing address.address_id

3.8 Payment (Dimension table)

Contains customer payment information.

	Column	Data Type	Description
🔑	payment-id	SERIAL	Payment's id number
🗝️	customer_id	SMALLINT	The customer's id number
🗝️	store_id	SMALLINT	The store's id number
🗝️	rental_id	SERIAL	Rental id number
	amount	NUMERIC(5,2)	Amount of rental entry
	payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of payment entry

Links to

	Table	Join	Description
→	customer	payment.customer_id = customer.customer_id	Foreign key constraint referencing customer.customer_id
→	staff	payment.staff_id = staff.staff_id	Foreign key constraint referencing staff.staff_id
→	rental	payment.rental_id = rental.rental_id	Foreign key constraint referencing rental.rental_id

3.9 Actor (Dimension table)

Contains actor information.

	Column	Data Type	Description
🔑	actor_id	SMALLINT	The actor's id number
	first_name	CHARACTER VARYING(45)	First name of actor
	last_name	CHARACTER VARYING(45)	Last name of actor
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Linked from

	Table	Join	Description
→	film_actor	film_actor.actor_id = actor.actor_id	Foreign key constraint referencing actor.actor_id

3.10 Film (Dimension table)

Contains film & rental information.

	Column	Data Type	Description
🔑	film_id	SMALLINT	The film's id number
	title	CHARACTER VARYING(255)	Title of film
	description	TEXT	Description of film
	release_year	year	Year of film release
🔑	language_id	SMALLINT	Film's language
	rental_duration	SMALLINT	Time length of rental

	rental_rate	NUMERIC(4,2)	Rental rate amount
	length	SMALLINT	How long the film is
	replacement_cost	NUMERIC(5,2)	Film replacement cost
	rating	mpaa_rating	Film rating
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record
	Special_features	TEXT[]	Special or additional scenes or features
	fulltext	TSVECTOR	Film's keywords

Links to

	Table	Join	Description
→	language	film.language_id = language.language_id	Foreign key constraint referencing language.language_id

Linked from

	Table	Join	Description
→	film_actor	film_actor.film_id = film.film_id	Foreign key constraint referencing film.film_id

3.11 Category (Dimension table)

Contains film category information.

	Column	Data Type	Description
🔑	category_id	SMALLINT	The film's category id
	name	CHARACTER VARYING(25)	Name of film category
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Linked from

	Table	Join	Description
→	film_category	film_category.category_id = category.category_id	Foreign key constraint referencing category.category_id

3.12 Address (Dimension table)

Contains customer location information.

	Column	Data Type	Description
🔑	address_id	SMALLINT	Address of store id
	address	CHARACTER VARYING(50)	Address of store line 1
	address2	CHARACTER VARYING(50)	Address of store line 2
	district	CHARACTER VARYING(20)	Store's district
🔑	city_id	SMALLINT	Store's city
	postal_code	CHARACTER VARYING(10)	Store's postal code
	phone	CHARACTER VARYING(20)	Store's phone number
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
→	city	address.city_id = city.city_id	Foreign key constraint referencing city.city_id

Linked from

	Table	Join	Description
→	customer	customer.address_id = address.address_id	Foreign key constraint referencing address.address_id
→	staff	staff.address_id = address.address_id	Foreign key constraint referencing address.address_id
→	store	store.address_id = address.address_id	Foreign key constraint referencing address.address_id

3.13 Language (Dimension table)

Contains film's language information.

	Column	Data Type	Description
🔑	language_id	SMALLINT	Film's language
	name	CHARACTER(20)	Name of language

	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Linked from

	Table	Join	Description
→	film	film.language_id = language.language_id	d Foreign key constraint referencing language.language_id

3.14 City (Dimension table)

Contains customer's city location information.

	Column	Data Type	Description
🔑	city_id	SERIAL	City's id
	city	CHARACTER VARYING(50)	Name of city
	country_id	SMALLINT	Country
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Links to

	Table	Join	Description
→	country	city.country_id = country.country_id	Foreign key constraint referencing country.country_id

Linked from

	Table	Join	Description
→	address	address.city_id = city.city_id	Foreign key constraint referencing city.city_id

3.14 City (Dimension table)

Contains customer's country location information.

	Column	Data Type	Description
🔑	country_id	SERIAL	Country id
	country	CHARACTER VARYING(50)	Country

	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Time stamp of last update for record

Linked

	Table	Join	Description
$\longrightarrow$	city	city.city_id = country.city_id	Foreign key constraint referencing country.city_id