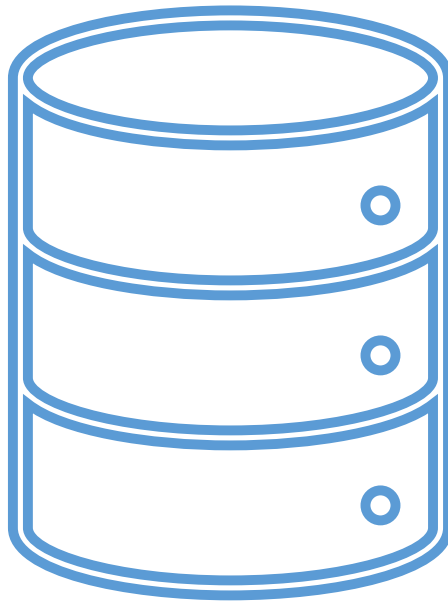

ROCKBUSTER

Data Dictionary



10/05/2021

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1. Entity Relationship Diagram

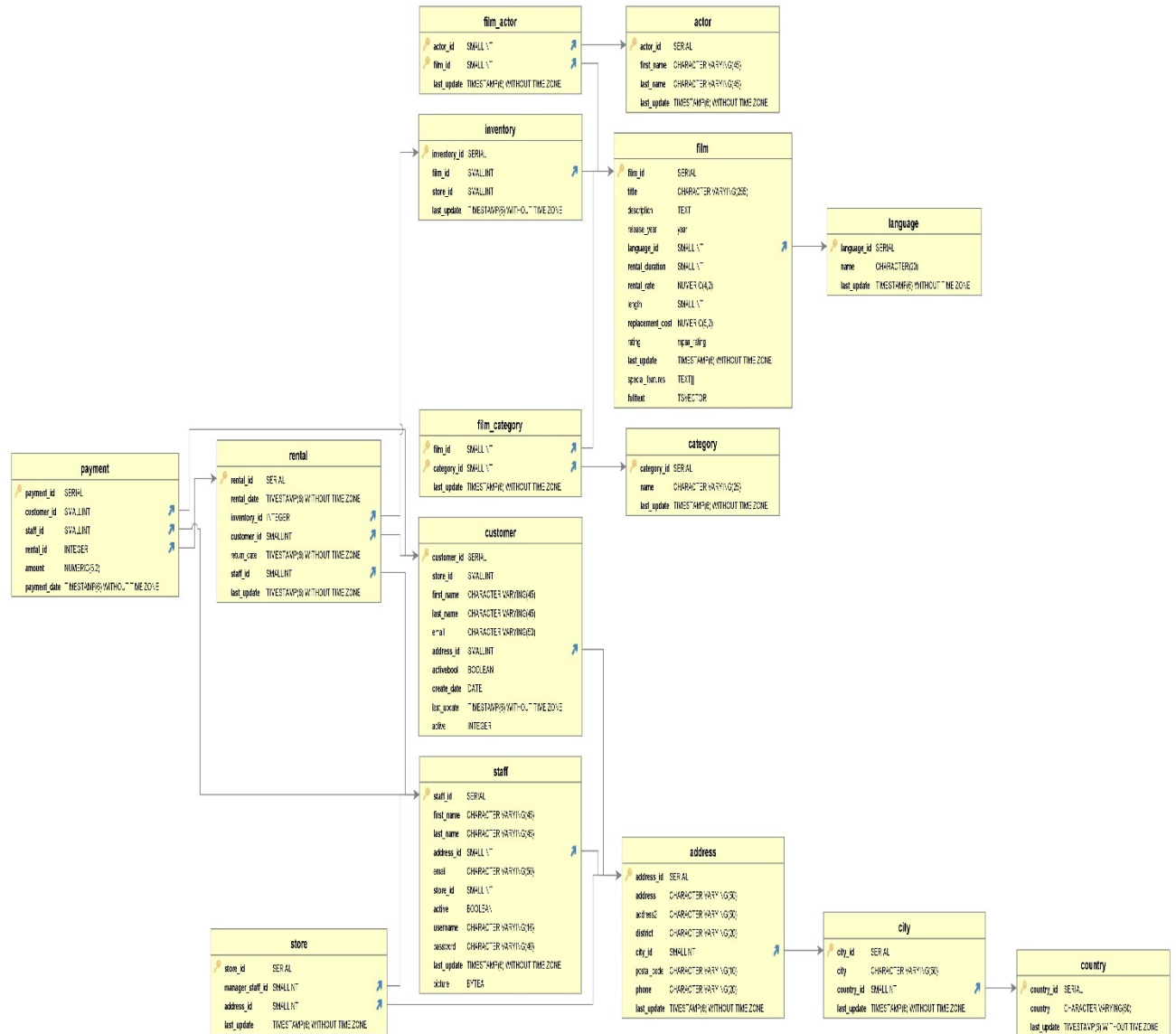


Fig. 1 ERD of Rockbuster Database

2. Fact tables:

2.1 Payment

Stores customer's payment details

Columns	Data Type	Description
payment_id	SERIAL	Primary key and Unique key for the payment records and Identity increment for the payments.
customer_id	SMALLINT	Unique key and Identity increment for customers
staff_id	SMALLINT	Unique key and Identity increment for staff
rental_id	INTEGER	Unique key and Identity increment for film rental
amount	NUMERIC (5,2)	Amount of the film rental
payment_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time of payment

Linked To

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

2.2 Film_category

Stores the information regarding film categories

Columns	Data Type	Description
film_id	SERIAL	Primary and unique key for film records and identity increment for films
category_id	SMALLINT	Unique key and Identity increment for category of the film

last_update	SERIAL	Date/Time when the database is last updated for film
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Linked to

Table	Join	Description
category	film_category.category_id = category.category_id	FK_film_category_category_category_id Foreign key constraint referencing category_category_id
film	film_category.film_id= film.film_id	FK_film_category_film_film_id Foreign key constraint referencing film.film_id

2.3 Inventory

Stores inventory data

Columns	Data Type	Description
inventory_id	SERIAL	<u>Primary key and Unique key</u> for inventory records. Identity increment for inventory
film_id	SMALLINT	<u>Unique key</u> Identity increment for film
store_id	SMALLINT	<u>Unique key</u> Identity increment for store
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for Inventory

Linked to

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

Linked from

Table	Join	Description
rental	inventory.rental_id= rental_rental_id	FK_rental_inventory_rental_id Foreign key constraint referencing inventory.rental_id

2.4 Film_actor

Stores film's actor's information

Columns	Data Type	Description
actor_id	SMALLINT	Primary key and Unique key for actor records. Identity increment for actor
film_id	SMALLINT	Unique key and Identity increment for film
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for film_actor

Linked to

Table	Join	Description
film	film_actor.film_id= film.film_id	FK_film_actor_fiilm_film_id Foreign key constraint referencing film.film_id
actor	film_actor.actor_id= actor.actor_id	FK_film_actor_actor_actor_id Foreign key constraint referencing actor.actor_id

3. Dimensions table:

3.1 Rental

Stores the rental data

Columns	Data Type	Description
rental_id	SERIAL	Primary key and Unique key for rental records. Identity increment for rental
rental_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time of Rental
inventory_id	INTEGER	Unique key and Identity increment for inventory
customer_id	SMALLINT	Unique key and Identity increment for customer

return_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time of return
staff_id	SMALLINT	Unique key and Identity increment for staff
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for rental

Linked to

Table	Join	Description
customer	rental.customer_id= customer.customer_id	FK_rental_customer_customer_id Foreign key constraint referencing customer.customer_id
inventory	rental.inventory_id= inventory.inventory_id	FK_rental_inventory_inventory_id Foreign key constraint referencing inventory.inventory_id

Linked from

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

3.2 Customer

Stores the customer's information line name, address id, email

Columns	Data Type	Description
customer_id	SERIAL	Primary key and Unique key for customer records. Identity increment for customer
store_id	SMALLINT	Unique key and Identity increment for store
first_name	CHARACTER VARYING (45)	Customer's first name
last_name	CHARACTER VARYING (45)	Customer's last name
email	CHARACTER VARYING (45)	Email id of customer

address_id	SMALLINT	Unique key and Identity increment for customer's address
activebool	BOOLEAN	True or False to check whether customer is active or not in the system
create_date	Date	Date/time when customer is created in system
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for customer
active	INTEGER	0 or 1 integer for whether customer is active or not

Linked to

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

Linked from

Table	Join	Description
rental	customer.customer_id= rental.customer_id	FK_ rental_customer_customer_id Foreign key constraint referencing customer.customer_id

3.3 Film

Stores the film data such as title, release year, length, rating, etc.

Columns	Data Type	Description
film_id	SERIAL	Primary key and Unique key for film records. Identity increment for film
Title	SMALLINT	Title of the film
Description	CHARACTER VARYING (45)	Description of the film
release_year	CHARACTER VARYING (45)	Film's release year
language_id	CHARACTER VARYING (45)	Unique key for Language of the film

rental_duration	SMALLINT	Rental duration of the film
rental_date	BOOLEAN	Date when the film is rented
Length	Date	Length of the film
replacement_cost	TIMESTAMP (6) WITHOUT TIME ZONE	Replacement cost of the film
Rating	INTEGER	Rating of the film
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for Film
Special_features	TEXT []	Description of what special features is included (Trailers, Behind the scenes)
Fulltext	TSVECTOR	More information regarding the film

Linked to

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

Linked from

Table	Join	Description
film_actor	film_actor.film_id= film.film_id	FK_ film_actor_film_film_id Foreign key constraint referencing film.film_id
inventory	film.film_id= inventory.film_id	FK_ inventory_film_film_id Foreign key constraint referencing film.film_id
film_category	film.film_id= film_category.film_id	FK_ film_category_film_film_id Foreign key constraint referencing film.film_id

3.4 Category

Stores film categories data

Columns	Data Type	Description
category_id	SERIAL	<u>Primary key and Unique key</u> for category records. Identity increment for category
name	CHARACTER (25)	Name of the category of film
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for category

Linked from

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

3.5 Language

Contains the information on film language

Columns	Data Type	Description
language_id	SERIAL	<u>Primary and Unique key</u> for language records. Identity increment for language
name	CHARACTER (20)	Name of the language of film
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for language

Linked from

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

3.6 Actor

Contains actor's data including first name and last name

Columns	Data Type	Description
actor_id	SERIAL	Primary and Unique key for actor records. Identity increment for actor
first_name	CHARACTER (45)	First name of the actor
last_name	CHARACTER (45)	Last name of the actor
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for actor

Linked from

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

3.7 Staff

Stores staff related information

Columns	Data Type	Description
staff_id	SERIAL	Primary and Unique key for staff records. Identity increment for staff
first_name	CHARACTER VARYING (45)	First name of the staff
last_name	CHARACTER VARYING (45)	Last name of the staff
address_id	SMALLINT	Unique key and address of the staff
email	CHARACTER VARYING (50)	Email id of the staff
store_id	SMALLINT	Unique key and identity increment for store where staff is employed
active	BOOLEAN	True or false to check whether the staff is active or not in the system

username	CHARACTER VARYING (40)	Staff's username
password	CHARACTER VARYING (40)	Staff's password
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for staff
picture	BYTEA	Picture of the staff

Linked to

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

Linked from

Table	Join	Description
payment	payment.staff_id= staff.staff_id	FK_payment_staff_staff_id Foreign key constraint referencing staff.staff_id
rental	rental.staff_id= staff.staff_id	FK_rental_staff_staff_id Foreign key constraint referencing staff.staff_id
store	store.manager_staff_id= staff.staff_id	FK_store_staff_manager_staff_id Foreign key constraint referencing staff.staff_id

3.8 Store

Contains the store data including manager staff and address

Columns	Data Type	Description
store_id	SERIAL	Primary and Unique key for store records. Identity increment for store
manager_staff_id	SMALLINT	Unique key for manager staff id
address_id	SMALLINT	Unique key address id for the store

last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for store
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Linked to

Table	Join	Description
staff	store.manager_staff_id=staff.staff_id	FK_store_staff_staff_id Foreign key constraint referencing staff.staff_id
address	store.address_id=address.address_id	FK_store_address_address_id Foreign key constraint referencing address.address_id

3.9 Address

Stores address data for staff and customers

Columns	Data Type	Description
address_id	SERIAL	<u>Primary and Unique key</u> for address records. Identity increment for address
address	CHARACTER VARYING (50)	First line for the address
Address2	CHARACTER VARYING (50)	Second line for the address
district	CHARACTER VARYING (20)	District of the address
city_id	SMALLINT	<u>Unique key</u> for City ID of the address
postal_code	CHARACTER VARYING (10)	Postal code of the address
phone	CHARACTER VARYING (20)	Phone number for the respective address
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for address

Linked to

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

Linked from

Table	Join	Description
customer	customer.address_id= address.address_id	FK_customer_address_address_id Foreign key constraint referencing address.address_id
staff	staff.address_id= address.address_id	FK_staff_address_address_id Foreign key constraint referencing address.address_id
store	store.address_id= address.address_id	FK_store_address_address_id Foreign key constraint referencing address.address_id

3.10 City

Stores the city related information like name, city id

Columns	Data Type	Description
city_id	SERIAL	<u>Primary and Unique key</u> for city records. Identity increment for city
city	CHARACTER (50)	Name of the city
country_id	SMALLINT	<u>Unique key</u> and identity increment for country
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for city

Linked to

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

Linked from

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

3.11 Country

Stores the country names and id

Columns	Data Type	Description
country_id	SERIAL	Primary and Unique key for country records. Identity increment for country
country	CHARACTER (50)	Name of the country
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date/Time when the database is last updated for country

Linked from

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