

Rockbuster Stealth LLC

Data Dictionary



Version 1.1

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1. Legends



2. Entity Relationship Diagram (ERD)

Entity Relationship Diagram (ERD) shows the relationships between the tables and illustrates the logical structure of database. The information related tables are listed in the next chapter.

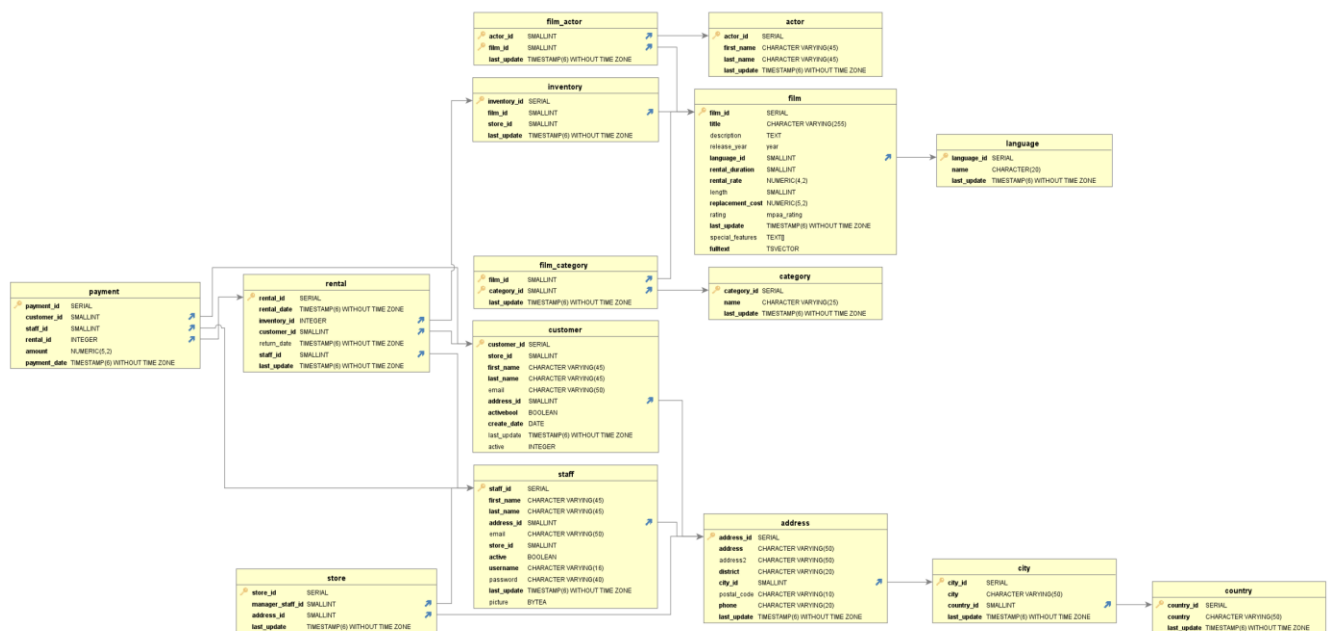



Figure 1: Entity Relationship Diagram (ERD)

3. Tables


The ERD related tables below are in alphabetical order.

3.1 actor	dimensional table		
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Columns



Key	Column	Data Type	Description
	actor_id	SERIAL	primary key , the actor identifier
	first_name	CHARACTER VARYING(45)	actor's first name
	last_name	CHARACTER VARYING(45)	actor's surname
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Linked from

	Table	Join	Description
	film_actor	film_actor.actor_id = actor.actor_id	foreign key constraint referencing film_actor.actor_id

3.2 address	dimensional table		
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Columns


Key	Column	Data Type	Description
	address_id	SERIAL	primary key , store address ID identifier
	address	CHARACTER VARYING(50)	1st line of the address for the store
	address2	CHARACTER VARYING(50)	2nd line of the address for the store
	district	CHARACTER VARYING(20)	district where the store is located
	city_id	SMALLINT	foreign key to identify city location
	postal_code	CHARACTER VARYING(10)	post code for the store
	phone	CHARACTER VARYING(20)	phone number for the store
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Links to


	Table	Join	Description
	city	address.city_id = city.city_id	foreign key constraint referencing address.city_id



Linked from

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


3.3.category	dimensional table		
Key	Table	Join	Description
	category_id	SERIAL	primary key to identify the film category
	name	CHARACTER VARYING(25)	the name of film category (e.g. action, animation etc), max 25 characters
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Linked from


	Table	Join	Description
	film_category	film_category.category_id = category.category_id	foreign key constraint referencing film_category.category_id

3.4 city	dimensional table		
Key	Table	Join	Description
	city_id	SERIAL	primary key , city identifier based on the internal id number list
	city	CHARACTER VARYING(50)	the name of the city where store is located (text format)
	country_id	SMALLINT	foreign key , country identifier based on the internal id number
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

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.address_id = city.address_id	foreign key constraint referencing address.address_id

3.5 country

dimensional table



Key	Table	Join	Description
	country_id	SERIAL	primary key , country identifier based on the internal id number
	country	CHARACTER VARYING(50)	the name of the country where store is located (text format)
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Linked from

	Table	Join	Description
	city	city.country_id = country.country_id	foreign key constraint referencing city.country_id


3.6 customer

dimensional table



Key	Table	Join	Title / Name / Description
	customer_id	SERIAL	primary key , customer identifier
	store_id	SMALLINT	store identification number
	first_name	CHARACTER VARYING(45)	customer's first name, max 45 characters
	last_name	CHARACTER VARYING(45)	customer's surname, max 45 characters
	email	CHARACTER VARYING(50)	customer's email, max 50 characters
	address_id		foreign key , an unique code to identify address
	activebool	BOOLEAN	define an active or non-active customer (true vs false)
	create_date	DATE	date when the record was created



	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated
	active	INTEGER	identify active (1) and non- active (0) user/customer

Links to


	Table	Join	Description
	address	customer.address_id = address.address_id	foreign key constraint referencing customer.address_id

Linked from




	Table	Join	Description
	rental	customer.customer_id = rental.customer_id	foreign key constraintreferencing customer.customer_id
	payment	customer.customer_id = payment.customer_id	foreign key constraintreferencing customer.customer_id





3.7 film	dimensional table		
Key	Table	Join	Title / Name / Description
	film_id	SERIAL	primary key , unique film identifier
	title	CHARACTER VARYING(255)	the name of the film (text format, max 255 characters)
	description	text	the synopsis or film description
	release_year	year	year when the fim was released
	language_id	SMALLINT	foreign key , id number for the original language (spoken in the film)
	rental duration	SMALLINT	number of days the film was rented
	rental_rate	NUMERIC(4,2)	cost of rental
	length	SMALLINT	length of the film
	replacement_ cost	NUMERIC(5,2)	replacement cost
	rating	mpaa_rating	age restriction of the move
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated
	special_featu res	TEXT[]	trailers and other additional information
	fulltext	TSVECTOR	key words to describe the movie

Links to



	Table	Join	Description
	language	film.language_id = language.language_id	foreign key constraint referencing film.language_id

Linked from


	Table	Join	Description
	film_actor	film_actor.film_id = film.film_id	foreign key constraint referencing film_actor.film_id
	inventory	inventory.film_id = film.film_id	foreign key constraint referencing inventory.film_id
	film_category	film_category.film_id = film.film_id	foreign key constraint referencing film_category.film_id





3.8 film_actor	fact table		
Key	Table	Join	Description
 	actor_id	SMALLINT	composite key, foreign key , an unique actor identifier
 	film_id	SMALLINT	composite key, foreign key , an unique film identifier
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Links to



	Table	Join	Description
	actor	film_actor.actor_id = actor.actor_id	foreign key constraint referencing film_actor.actor_id
	film	film_actor.film_id = actor.film_id	foreign key constraint referencing film_actor.film_id

Linked from



	Table	Join	Description
	film_category	film_category.film_id = film_actor.film_id	foreign key constraint referencing film_category.film_id


3.9 film_category	fact table		
Key	Table	Join	Description
 	film_id	SMALLINT	composite key, foreign key , an unique film identifier
 	category_id	SMALLINT	composite key, foreign key , unique identifier which film category the film belongs to
	last_update	timestamp without time zone	date when the record was last updated

Links to


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

Linked from



	Table	Join	Description
	film_actor	film_actor.film_id = film_category.film_id	foreign key constraint referencing film_actor.film_id
	inventory	inventory.film_id = film_category.film_id	foreign key constraint referencing inventory.film_id

3.10 inventory	dimensional table		
Key	Table	Join	Description
	inventory_id	SERIAL	primary key , an unique number of inventory record
	film_id	SMALLINT	foreign key, film identifier number
	store_id	SMALLINT	number to identify store location
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

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	foreign key constraint referencing rental.inventory_id
	film_category	film_category.film_id = inventory.film_id	foreign key constraint referencing film_category.film_id

3.11 language

dimensional table





Key	Table	Join	Description
	language_id	SERIAL	primary key , an unique number to identify the original language
	name	CHARACTER VARYING(20)	language in written format
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Linked from

	Table	Join	Description
	film	film.language_id = language.language_id	foreign key constraint referencing film.language_id

3.12 payment

fact table

Key	Table	Join	Description
	payment_id	SERIAL	primary key , an unique number to identify the purchase
	customer_id	SMALLINT	foreign key , customer identification number
	staff_id	SMALLINT	foreign key , an unique number to identify a staff member who dealt the order
	rental_id	INTEGER	foreign key , to categorise the rental transaction
	amount	NUMERIC	amount received / paid by customer
	payment_date	timestamp without time zone	date when the product was purchased

Links to


	Table	Join	Description
▶	rental	payment.rental_id = rental.rental_id	foreign key constraint referencing payment.rental_id
▶	customer	payment.customer_id = customer.customer_id	foreign key constraint referencing payment.customer_id
▶	staff	payment_staff.id = staff.staff_id	foreign key constraint referencing payment_staff.id

3.13 rental	dimensional table		
Key	Table	Join	Description
🔑	rental_id	SERIAL	primary key , an unique number to identify the rental transaction
	rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	the date when the film was rented
🔑	inventory_id	INTEGER	foreign key , an unique number of inventory record
🔑	customer_id	SMALLINT	foreign key , an unique number to identify customer
	return_date	TIMESTAMP(6) WITHOUT TIME ZONE	the date when the film was returned
🔑	staff_id	SMALLINT	foreign key , an unique number, to identify a staff member who dealt/updated the rental transaction
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated

Links to



	Table	Join	Description
▶	inventory	rental.inventory_id = inventory.inventory_id	foreign key constraint referencing rental.inventory_id
▶	customer	rental.customer_id = customer.inventory_id	foreign key constraint referencing rental.customer_id
▶	staff	rental.staff_id = staff.staff_id	foreign key constraint referencing rental.staff_id

Linked from


	Table	Join	Description
	payment	payment.rental_id = rental.rental_id	foreign key constraint referencing payment.rental_id

3.14 staff




dimensional table



Key	Table	Join	Description
	staff_id	SERIAL	primary key , an unique number to identify staff member
	first_name	CHARACTER VARYING(45)	person's first name
	last_name	CHARACTER VARYING(45)	person's first name
	address_id	SMALLINT	foreign key , an unique code to identify address
	email	CHARACTER VARYING(50)	staff member's email address
	store_id	SMALLINT	an unique code to identify store
	active	BOOLEAN	define whether the member of staff is active/working or not
	username	CHARACTER VARYING(16)	person's logging username
	password	CHARACTER VARYING(40)	person's logging id
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	date when the record was last updated
	picture	BYTEA	image, large object

Links to



	Table	Join	Description
	address	staff.address_id = address.address_id	foreign key constraint referencing staff.address_id

Linked from

	Table	Join	Description
	payment	payment.staff_id = staff.staff_id	foreign key constraint referencing payment.staff_id
	rental	rental.staff_id = staff.staff_id	foreign key constraint referencing rental.staff_id
	store	store.address_id = staff.address_id	foreign key constraint referencing store.address_id

3.15 store	dimensional table		
Key	Table	Join	Description
	store_id	SERIAL	primary key , an unique store identifier
	manager_staff_id	SMALLINT	foreign key , store manager
	address_id	SMALLINT	an unique store address id
	last_update	timestamp without time zone	date when the record was last updated

Links to

	Table	Join	Description
	staff	store.address_id = staff.address_id	foreign key constraint referencing store.address_id
	address	store.address_id = address.address_id	foreign key constraint referencing store.address_id