Rockbuster *Stealth* LLC

DATA DICTIONARY

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LEGEND

🔑 Primary Key

⊶ Unique Key

✈ Foreign Key

INTRODUCTION

Rockbuster Stealth LLC is a movie rental company that used to have stores around the world. Data about their customers, staff, stores, and inventory has been loaded into a relational database management system (RDBMS). This data dictionary is a tool to aid analysts in making sense of the structure and content of this data, thereby enabling them to more efficiently answer questions posed by other departments within Rockbuster.

1. ENTITY RELATIONSHIP DIAGRAMS (ERD)

A. HIERARCHAL ERD

B. ORGANIC ERD

staff

🔑 **staff_id**	SERIAL
first_name	CHARACTER VARYING(45)
last_name	CHARACTER VARYING(45)
address_id	SMALLINT
email	CHARACTER VARYING(50)
store_id	SMALLINT
active	BOOLEAN
username	CHARACTER VARYING(16)
password	CHARACTER VARYING(40)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE
picture	BYTEA

store

🔑 **store_id**	SERIAL
manager_staff_id	SMALLINT
address_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

rental

🔑 **rental_id**	SERIAL
rental_date	TIMESTAMP(6) WITHOUT TIME ZONE
inventory_id	INTEGER
customer_id	SMALLINT
return_date	TIMESTAMP(6) WITHOUT TIME ZONE
staff_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

payment

🔑 **payment_id**	SERIAL
customer_id	SMALLINT
staff_id	SMALLINT
rental_id	INTEGER
amount	NUMERIC(5,2)
payment_date	TIMESTAMP(6) WITHOUT TIME ZONE

address

🔑 **address_id**	SERIAL
address	CHARACTER VARYING(50)
address2	CHARACTER VARYING(50)
district	CHARACTER VARYING(20)
city_id	SMALLINT
postal_code	CHARACTER VARYING(10)
phone	CHARACTER VARYING(20)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

city

🔑 **city_id**	SERIAL
city	CHARACTER VARYING(50)
country_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

country

🔑 **country_id**	SERIAL
country	CHARACTER VARYING(50)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

inventory

🔑 **inventory_id**	SERIAL
film_id	SMALLINT
store_id	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

customer

🔑 **customer_id**	SERIAL
store_id	SMALLINT
first_name	CHARACTER VARYING(45)
last_name	CHARACTER VARYING(45)
email	CHARACTER VARYING(50)
address_id	SMALLINT
activebool	BOOLEAN
create_date	DATE
last_update	TIMESTAMP(6) WITHOUT TIME ZONE
active	INTEGER

film

🔑 **film_id**	SERIAL
title	CHARACTER VARYING(255)
description	TEXT
release_year	year
language_id	SMALLINT
rental_duration	SMALLINT
rental_rate	NUMERIC(4,2)
length	SMALLINT
replacement_cost	NUMERIC(5,2)
rating	mpaa_rating
last_update	TIMESTAMP(6) WITHOUT TIME ZONE
special_features	TEXT[]
fulltext	TSVECTOR
film_imdb	INTEGER

film_actor

🔑 **actor_id**	SMALLINT
🔑 **film_id**	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

film_category

🔑 **film_id**	SMALLINT
🔑 **category_id**	SMALLINT
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

actor

🔑 **actor_id**	SERIAL
first_name	CHARACTER VARYING(45)
last_name	CHARACTER VARYING(45)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

category

🔑 **category_id**	SERIAL
name	CHARACTER VARYING(25)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

language

🔑 **language_id**	SERIAL
name	CHARACTER(20)
last_update	TIMESTAMP(6) WITHOUT TIME ZONE

2. FACT TABLES

2.1 PAYMENT TABLE

Source of ID for each Rockbuster transaction, connecting customer, staff member, rental info to payment and transaction date.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	payment_id	serial	Primary key (surrogate) for payment table Auto-update: nextval
✈	customer_id	smallint2	Foreign key for **customer** table linking to the customer for this transaction.
✈	staff_id	smallint2	Foreign key for **staff** table linking to the staff member who processed this transaction.
✈	rental_id	integer4	Foreign key for **rental** table linking to the rental record for this transaction.
	amount	numeric (s,2)	Total amount of transaction
	payment_date	timestamp (without time zone)	Date of transaction

LINKS TO

Table	Join
customer	payment.customer_id = customer.customer_id
staff	payment.staff_id = staff.staff_id
rental	payment.rental_id = rental.rental_id

2.2 RENTAL TABLE

Source of ID for each unique rental, connecting customer, staff member, and rental info such as the check-out/check-in dates.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	rental_id	serial	Primary key (surrogate) for rental table Auto-update: nextval
	rental_date	timestamp (without time zone)	Date item was checked out
✈	inventory_id	integer4	Foreign key for **inventory** table linking to the item rented by the customer.
✈	customer_id	smallint2	Foreign key for **customer** table linking to the customer for this transaction.
	return_date	timestamp (without time zone)	Date item was returned
✈	staff_id	smallint2	Foreign key for **staff** table linking to the staff member who processed this transaction.
	last_update	timestamp (without time zone)	Date this rental record was last updated Default: now()

LINKS TO

Table	Join
inventory	rental.inventory_id = inventory.inventory_id
customer	rental.customer_id = customer.customer_id
staff	rental.staff_id = staff.staff_id

LINKS FROM

Table	Join
payment	payment.rental_id = rental.rental_id

3. DIMENSION TABLES

3.1 STAFF TABLE

Lists Rockbuster staff members and related data about each person, including which store they are affiliated with and their email address.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	staff_id	serial	Primary key for staff table Auto-update: nextval
	first_name	varchar(45)	Staff first name
	last_name	varchar(45)	Staff last name
✈	address_id	smallint2	Foreign key for the **address** table linking to this staff member's address.
🔗	email	varchar(50)	Staff work email; unique key
✈	store_id	smallint2	Foreign key for **store** table linking to the store where staff member primarily works.
	active	boolean	True = staff is currently employed here (Default) False = staff is not currently employed here
🔗	username	varchar(16)	Staff username; unique key
	password	varchar(40)	Staff password
	last_update	timestamp (without time zone)	Date this staff record was last updated. Default: now()
	picture	bytea	Photo of the staff member

LINKS TO

Table	Join
address	staff.address_id = address.address_id
store	staff.store_id = store.store_id

LINKS FROM

| Table	Join
payment	payment.staff_id = staff.staff_id

3.2 STORE TABLE

Table identifying the manager and address key for each store.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	store_id	serial	Primary key for store table Auto-update: nextval
✈	manager_staff_id	smallint2	Foreign key for **staff** table linking to the staff member who is the manager for this store.
✈	address_id	smallint2	Foreign key for the **address** table linking to this store's address.
	last_update	timestamp (without time zone)	Date this store record was last updated. Default: now()

LINKS TO

Table	Join
staff	store.manager_staff_id = staff.staff_id
address	store.address_id = address.address_id

LINKS FROM

Table	Join
staff	staff.store_id = store.store_id
inventory	inventory.store_id = store.store_id
customer	customer.store_id = store.store_id

3.3 CUSTOMER TABLE

Lists Rockbuster customers and related data about each person, including which store they are affiliated with and their email address.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	customer_id	serial	Primary key for customer table Auto-update: nextval
✈	store_id	smallint2	Foreign key for **store** table linking to the store where customer account was created.
	first_name	varchar(45)	Customer's first name
	last_name	varchar(45)	Customer's last name
	email	varchar(50)	Customer's email address
✈	address_id	smallint2	Foreign key for the **address** table linking to this customer's address.
	activebool	boolean	True = customer has active account; Default False = customer account is inactive.
	create_date	date	Date this customer account was created. Default: now()
	last_update	timestamp (without time zone)	Date this customer account was last updated. Default: now()
	active	integer4	1 = customer has active account; 0 = customer account is inactive.

LINKS TO

Table	Join
store	customer.store_id = store.store_id
address	customer.address_id = address.address_id

LINKS FROM

| Table	Join
payment	payment.customer_id = customer.customer_id
inventory	inventory.customer_id = customer.customer_id

3.4 ADDRESS TABLE

Street addresses and phone numbers for customers, staff and stores.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	address_id	serial	Primary key for address table Auto-update: nextval
	address	varchar(50)	Street address line 1
	address2	varchar(50)	Street address line 2
	district	varchar(20)	Name of state, territory, district, etc.
✈	city_id	smallint2	Foreign key for the **city** table linking to this city's record
	postal_code	varchar(10)	Postal code
	phone	varchar(20)	Phone number
	last_update	timestamp (without time zone)	Date this address was last updated. Default: now()

LINKS TO

Table	Join
city	address.city_id = city.city_id

LINKS FROM

Table	Join
customer	customer.address_id = address.address_id
staff	staff.address_id = address.address_id
store	store.address_id = address.address_id

3.5 CITY TABLE

Lists names of cities and identifies the country ID for the country in which they are located.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	city_id	serial	Primary key for city table Auto-update: nextval
	city	varchar(50)	City name
✈	country_id	smallint2	Foreign key for the country table linking to this country's record
	last_update	timestamp (without time zone)	Date this city record was last updated. Default: now()

LINKS TO

Table	Join
country	city.country_id = country.country_id

LINKS FROM

Table	Join
address	address.city_id = city.city_id

3.6 COUNTRY TABLE

Lookup table listing names of countries.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	country_id	serial	Primary key for country table Auto-update: nextval
	country	varchar(50)	Country name
	last_update	timestamp (without time zone)	Date this country record was last updated. Default: now()

LINKS FROM

Table	Join
city	city.country_id = country.country_id

3.7 INVENTORY TABLE

Cross-reference table mapping specific inventory items to the store where those items are located, and vice versa.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	inventory_id	serial	Primary key for inventory table Auto-update: nextval
✈	film_id	smallint2	Foreign key for **film** table linked to this inventory item.
✈	store_id	smallint2	Foreign key for **store** table linking to the record for the store that has this item in their inventory.
	last_update	timestamp (without time zone)	Date this inventory record was last updated Default: now()

LINKS TO

Table	Join
film	inventory.film_id = film.film_id
store	inventory.store_id = store.store_id

LINKS FROM

| Table	Join
rental	rental.inventory_id = inventory.inventory_id

3.8 FILM TABLE

Films owned by Rockbuster and related data about each film.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	film_id	serial	Primary key for film table Auto-update: nextval
	title	varchar(255)	Film title
	description	text	Film description
	release_year	year	Film release_year
✈	language_id	smallint2	Foreign key for **language** table linking to the language for this film.
	rental_duration	smallint2	How long this film may be rented for in days Default: 3
	rental_rate	numeric(4,2)	Cost of renting this film Default: 4.99
	length	smallint2	Length of the film
	replacement_cost	numeric(5,2)	Cost of replacing this film Default: 19.99
	rating	mpaa_rating	Film rating using the MPAA scale Default: 'G'::mpaa_rating
	last_update	timestamp (without time zone)	Date this film record was last updated Default: now()
	special_features	_text	Film special features list
	fulltext	tsvector	Film fulltext

LINKS TO

Table	Join
language	film.language_id = language.language_id

LINKS FROM

Table	Join
inventory	inventory.film_id = film.film_id
film_actor	film_actor.film_id = film.film_id
film_category	film_category.film_id = film.film_id

3.9 LANGUAGE TABLE

Lookup table listing names of languages.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	language_id	serial	Primary key for language table Auto-update: nextval
🔑	name	character(20)	Name of language; unique key
	last_update	timestamp (without time zone)	Date this language record was last updated Default: now()

LINKS FROM

Table	Join
film	film.language_id = language.language_id

3.10 ACTOR TABLE

Lookup table listing first and last names of actors.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	actor_id	serial	Primary key for actor table Auto-update: nextval
	first_name	varchar(45)	Actor's first name
	last_name	varchar(45)	Actor's last name
	last_update	timestamp (without time zone)	Date this actor's record was last updated Default: now()

LINKS FROM

Table	Join
film_actor	film_actor.actor_id = actor.actor_id

3.11 FILM_ACTOR TABLE

Cross-referencing table mapping actors to their films and vice versa.

COLUMNS

|	Name	Data Type	Description / Attributes
✈	actor_id	smallint2	Foreign key for **actor** table linking to an actor in this film.
✈	film_id	smallint2	Foreign key for **film** table linking to a film done by this actor.
	last_update	timestamp (without time zone)	Date this record was last updated Default: now()

LINKS TO

Table	Join
actor	film_actor.actor_id = actor.actor_id
film	film_actor.film_id = film.film_id

3.12 CATEGORY TABLE

Lookup table listing types of categories.

COLUMNS

	Name	Data Type	Description / Attributes
🔑	category_id	serial	Primary key for category table Auto-update: nextval
⚊	name	varchar(25)	Name of category; unique key
	last_update	timestamp (without time zone)	Date this category's record was last updated Default: now()

LINKS FROM

Table	Join
film_category	film_category.category_id = category.category_id

3.13 FILM_CATEGORY TABLE

Cross-referencing table mapping films to their categories and vice versa.

COLUMNS

	Name	Data Type	Description / Attributes
✈	film_id	int2	Foreign key for **film** table linking to a film in this category.
✈	category_id	int2	Foreign key for **category** table linking to a category that fits this film.
	last_update	timestamp (without time zone)	Date this record was last updated Default: now()

LINKS TO

Table	Join
film	film_category.film_id = film.film_id
category	film_category.category _id = category.category _id