ROCKBUSTER

Data Dictionary

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TABLE OF CONTENT

Rockbuster Stealth LLC is a movie rental company that used to have stores around the world.
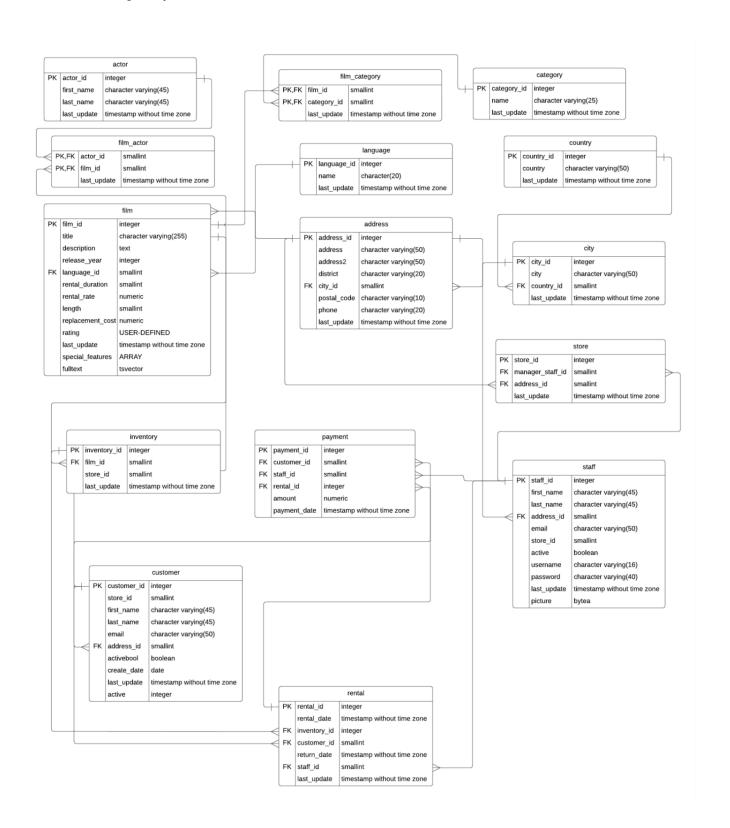
Facing stiff competition from streaming services such as Netflix and Amazon Prime, the Rockbuster Stealth management team is planning to use its existing movie licenses to launch an online video rental service in order to stay competitive.

The company database can be downloaded [here](http://www.postgresqltutorial.com/wp-content/uploads/2019/05/dvdrental.zip) and contains information on films, customers, payments, rentals, and more[1].

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[1] http://www.postgresqltutorial.com/wp-content/uploads/2019/05/dvdrental.zip

*PK: Primary Key
 FK: Foreign Key

actor

PK	actor_id	integer
	first_name	character varying(45)
	last_name	character varying(45)
	last_update	timestamp without time zone

film_actor

PK,FK	actor_id	smallint
PK,FK	film_id	smallint
	last_update	timestamp without time zone

film

PK	film_id	integer
	title	character varying(255)
	description	text
	release_year	integer
FK	language_id	smallint
	rental_duration	smallint
	rental_rate	numeric
	length	smallint
	replacement_cost	numeric
	rating	USER-DEFINED
	last_update	timestamp without time zone
	special_features	ARRAY
	fulltext	tsvector

film_category

PK,FK	film_id	smallint
PK,FK	category_id	smallint
	last_update	timestamp without time zone

language

PK	language_id	integer
	name	character(20)
	last_update	timestamp without time zone

address

PK	address_id	integer
	address	character varying(50)
	address2	character varying(50)
	district	character varying(20)
FK	city_id	smallint
	postal_code	character varying(10)
	phone	character varying(20)
	last_update	timestamp without time zone

category

PK	category_id	integer
	name	character varying(25)
	last_update	timestamp without time zone

country

PK	country_id	integer
	country	character varying(50)
	last_update	timestamp without time zone

city

PK	city_id	integer
	city	character varying(50)
FK	country_id	smallint
	last_update	timestamp without time zone

store

PK	store_id	integer
FK	manager_staff_id	smallint
FK	address_id	smallint
	last_update	timestamp without time zone

inventory

PK	inventory_id	integer
FK	film_id	smallint
	store_id	smallint
	last_update	timestamp without time zone

payment

PK	payment_id	integer
FK	customer_id	smallint
FK	staff_id	smallint
FK	rental_id	integer
	amount	numeric
	payment_date	timestamp without time zone

staff

PK	staff_id	integer
	first_name	character varying(45)
	last_name	character varying(45)
FK	address_id	smallint
	email	character varying(50)
	store_id	smallint
	active	boolean
	username	character varying(16)
	password	character varying(40)
	last_update	timestamp without time zone
	picture	bytea

customer

PK	customer_id	integer
	store_id	smallint
	first_name	character varying(45)
	last_name	character varying(45)
	email	character varying(50)
FK	address_id	smallint
	activebool	boolean
	create_date	date
	last_update	timestamp without time zone
	active	integer

rental

PK	rental_id	integer
	rental_date	timestamp without time zone
FK	inventory_id	integer
FK	customer_id	smallint
	return_date	timestamp without time zone
FK	staff_id	smallint
	last_update	timestamp without time zone

a. Fact Tables

Payment Table

Payment			
Description: Customer transactions			
Key	Column	Data Type	Description
PK	payment_id	integer	The ID generated for this purchase
FK	customer_id	smallint	The customer ID
FK	staff_id	smallint	Staff member ID
FK	rental_id	integer	Rented film ID
	amount	numeric	Net value of payment
	payment_date	timestamp without time zone	Date when the payment was processed (not incl. time zone)

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

Rental Table

Rental			
Description: Movie rentals and returns			
Key	Column	Data Type	Description
PK	rental_id	serial	ID generated for this rental
	customer_id	timestamp without time zone	Date and time when the film was rented
FK	inventory_id	integer	unique identifier assigned to an inventoried film
FK	customer_id	smallint	The customer ID
	return_date	timestamp without time zone	Date and time when the film was returned
FK	staff_id	smallint	Staff member ID
	last_update	timestamp without time zone	The date when the payment was made, does not include time zone data.

Links to

Table	Join	Description
inventory	rental.inventory_id = inventory.inventory_id	Foreign key constraint referencing inventory.inventory_id
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 |

Links from

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

b. Dimension Tables

Actor Table

Actor			
Description: Actor names			
Key	Column	Data Type	Description
PK	actor_id	integer	Actor ID
	first_name	Character varying(45)	Actor's first name
	last_name	Character varying(45)	Actor's last name
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links from

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

Address table

Address			
Description: Street address information for customers, staffs, and stores			
Key	Column	Data Type	Description
PK	address_id	integer	Address ID
	address	Character varying(50)	1st part of the address: street
	address2	Character varying(50)	2nd part of the address: suite number or secondary address information
	district	Character varying(50)	State or Province
FK	city_id	smallint	City ID
	postal_code	Character varying(10)	Postal/ZIP code
	phone	Character varying(30)	Address phone number
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links to

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

Links from

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

Category Table

Category			
Description: Movie category names			
Key	Column	Data Type	Description
PK	category_id	integer	Category/genre ID
	name	Character varying(25)	Name of film category/genre
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links from

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

City Table

City			
Description: City names with their associated country			
Key	Column	Data Type	Description
PK	city_id	smallint	City ID
	city	Character varying(50)	City name
FK	country_id	smallint	Country ID
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links to

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

Links from

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

Country Table

Country			
Description: Country names			
Key	Column	Data Type	Description
PK	country_id	smallint	Country ID
	country	Character varying(50)	Country name
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links to

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

Customer Table

Customer			
Description: Customer details with their active/inactive status			
Key	Column	Data Type	Description
PK	customer_id	smallint	Customer ID
	store_id	smallint	Store ID
	first_name	Character varying(45)	Customer's first name
	last_name	Character varying(45)	Customer's last name
	email	Character varying(50)	Customer email's address
FK	address_id	smallint	The unique ID for the address of this store.
	activebool	boolean	A true or false value to assess if the customer is an active customer
	create_date	date	The date the customer's account was created
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system
	active	integer	The same active status but displayed as an integer.

Links to

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

Links from

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

Film Table

Key	Column	Data Type	Description
Film _Description: Film details including title, description, length, rental rate & duration, replacement cost and special features_			
PK	film_id	integer	Film ID
	title	Character varying(255)	Film title
	description	text	Film description
	release_year	integer	Film release year
FK	language_id	smallint	Film original language ID
	rental_duration	smallint	How long the film was rented for
	rental_rate	numeric	How often the movie is rented on a scale of 0 to 5.
	length	smallint	Film length in minutes
	replacement_cost	numeric	How much it would cost to replace this film if lost or broken
	rating	USER-DEFINED	Film rating
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system
	special_features	ARRAY	A denotation if the rental comes with any special features like behind-the-scenes clips
	fulltext	tsvector	The location in the text of the words in the title and description

Links to

Table	Join	Description
language	film.film_id = language.film_id	Foreign key constraint referencing language.film_id

Links from

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

Film_Actor

Key	Column	Data Type	Description
Film_Actor _Description: Association between actors and films_			
PK/FK	actor_id	smallint	Actor ID
PK/FK	film_id	smallint	Film ID
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

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

Film_Category			
Description: Category/Genre of films			
Key	Column	Data Type	Description
PK/FK	film_id	smallint	Film ID
PK/FK	category_id	smallint	Category ID
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links to

Table	Join	Description
category	film_ category.category _id = category.category _id	Foreign key constraint referencing category.category _id
film	Film_ category.film_id = film.film_id	Foreign key constraint referencing film.film_id

Inventory Table

Inventory			
Description: Inventoried films with stored stores			
Key	Column	Data Type	Description
PK	inventory_id	integer	The unique ID associated with the film and it's place in the inventory.
FK	film_id	smallint	Film ID
	store_id	smallint	Store ID
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links to

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

Links from

Table	Join	Description
rental	inventory.inventory_id = rental.inventory_id	Foreign key constraint referencing rental.inventory_id

Language Table

	Language		
	Description: Languages available for films (original and dubbing)		
Key	Column	Data Type	Description
PK	language_id	integer	The ID for what language the movie is in
	name	Character varying(20)	The name of the language
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links from

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

Staff Table

	Staff		
	Description: Staff details including names, addresses, emails, associated stores, IDs and passwords, and pictures		
Key	Column	Data Type	Description
PK	staff_id	integer	Employee ID
	first_name	Character varying(45)	The staff member's first name
	last_name	Character varying(45)	The staff member's last name
FK	address_id	smallint	Address ID
	email	Character varying(50)	The employee's email address
	store_id	smallint	Store ID
	active	boolean	Whether the employee is still employed or not at the store
	username	Character varying(16)	The employee's username for the company account
	password	Character varying(40)	The employee's password for the company account
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system
	picture	bytea	The employee's picture

Links to

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

Links from

Table	Join	Description
payment	staff.staff_id = payment.staff_id	Foreign key constraint referencing payment.staff_id
rental	staff.staff_id = rental.staff_id	Foreign key constraint referencing rental.staff_id
store	staff.store_id = store.store_id	Foreign key constraint referencing store.store _id

Store Table

Store			
Description: Stores with associated store managers			
Key	Column	Data Type	Description
PK	store_id	smallint	Store ID
FK	manager_staff_id	smallint	Manager ID
FK	address_id	smallint	Address ID
	last_update	Timestamp without time zone	The last time this entry's information was updated in the system

Links to

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