

ROCKBUSTER STEALTH LLC

Data Dictionary
Version 1.0

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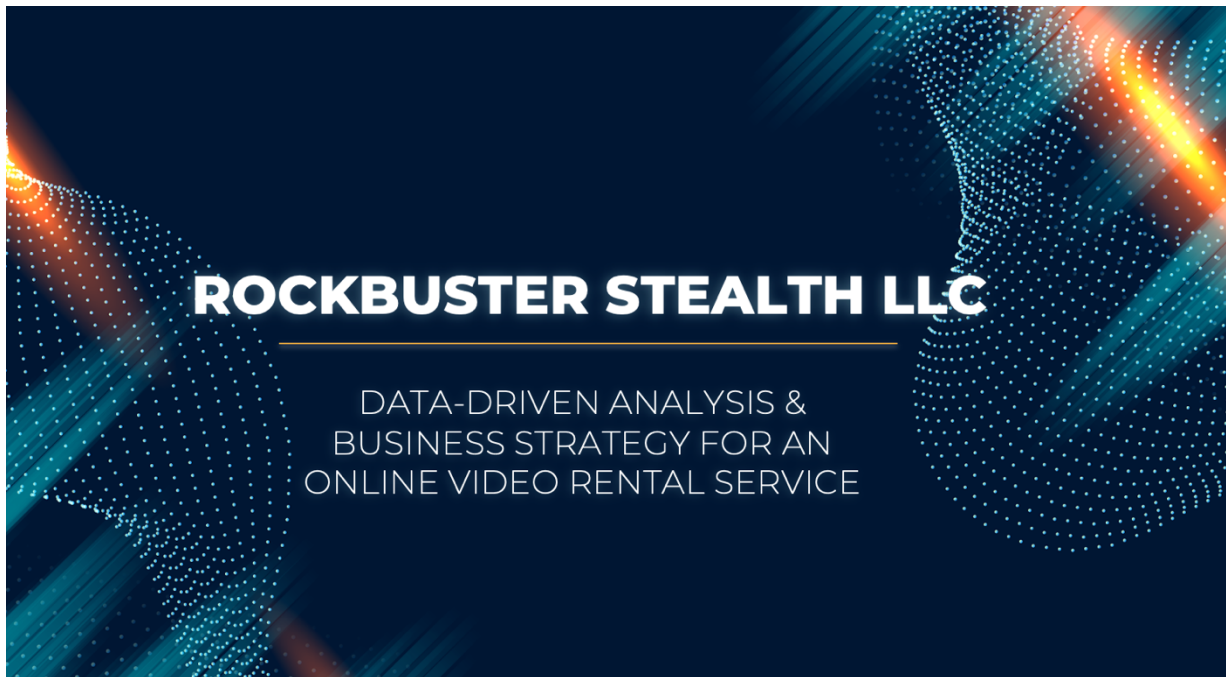
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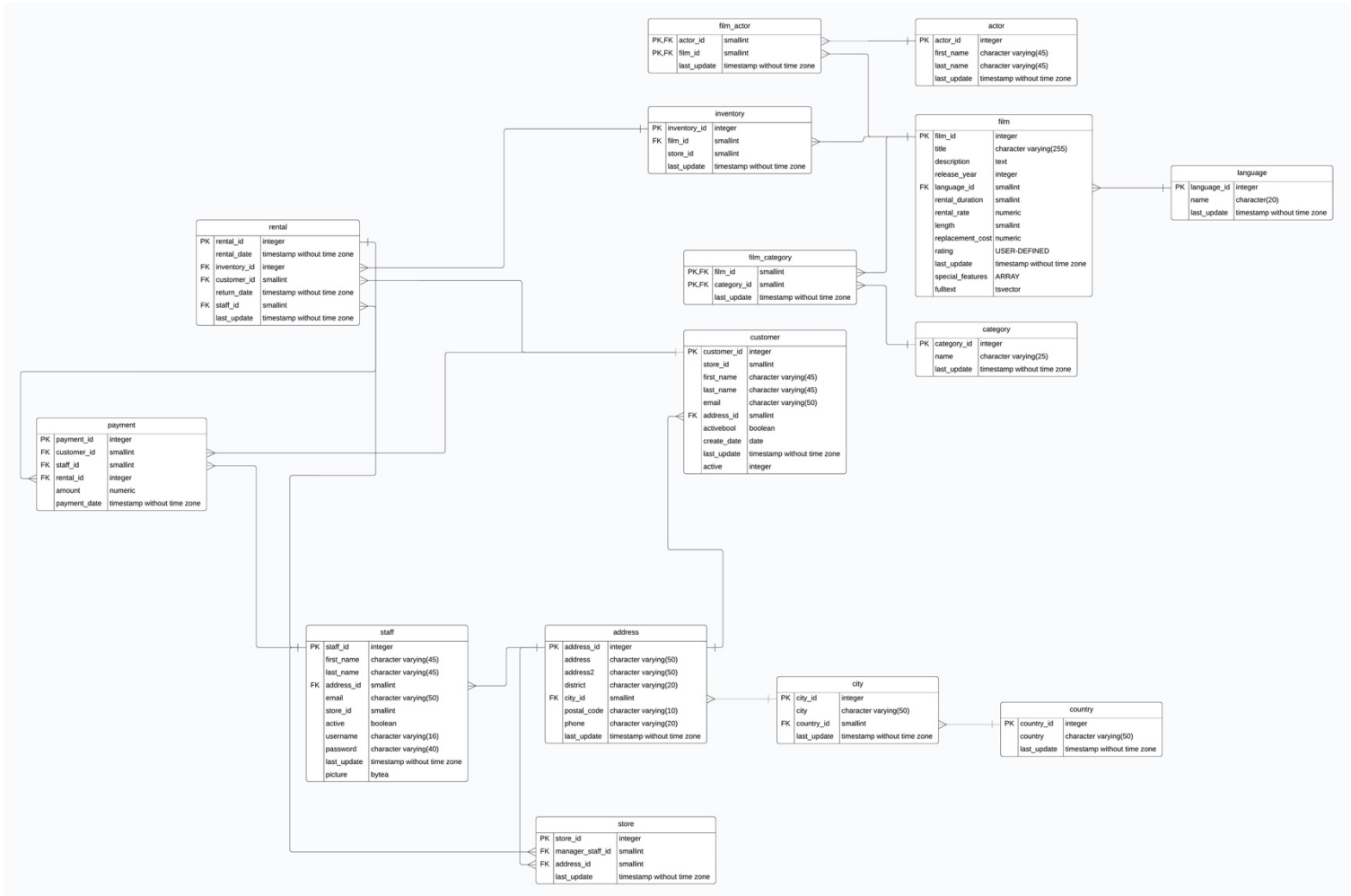
1. The Company

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.





2. Entity Relationship Diagram (ERD)

The Rockbuster Stealth's ERD is a snowflake schema, consisting of two fact tables plus various dimension and sub-dimension tables, which provides additional levels of detail and categorization.







3. Tables

	Primary Key
	Foreign Key

3.1 Fact Tables

3.1.1 Rental

Columns

	Name	Data Type	Description
	rental_id	SERIAL	Unique movie rental number. Primary key.
	rental_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date of a movie rental.
	inventory_id	INTEGER	Unique inventory number. Foreign key.
	customer_id	SMALLINT	Unique customer number. Foreign key.
	return_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date of a movie return.
	staff_id	SMALLINT	Unique employee number. Foreign key.
	last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

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





Unique Keys

Columns	Name/Description
rental_id	rental_pkey Primary key constraint
customer_id	rental_customer_id_fkey Foreign key constraint
inventory_id	rental_inventory_id_fkey Foreign key constraint
staff_id	rental_staff_id_fkey Foreign key constraint

3.1.2 Payment

Details of rental transactions, including rental and return date, paying customer, handling staff member etc.

Columns

Column	Data Type	Description
 payment_id	SERIAL	Unique payment number. Primary key.
 customer_id	SMALLINT	Unique customer number. Foreign key.
 staff_id	SMALLINT	Unique employee number. Foreign key.
 rental_id	INTEGER	Unique movie rental number. Foreign key.
amount	NUMERIC (5,2)	Price of the rental.
payment_date	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the payment.

Links to

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




Unique Keys

Columns	Name/Description
payment_id	payment_pkey Primary key constraint
rental_id	payment_rental_id_fkey Foreign key constraint
customer_id	payment_customer_id_fkey Foreign key constraint
staff_id	payment_staff_id_fkey Foreign key constraint

3.2 Dimension Tables

3.2.1 Customer

Columns

Column	Data Type	Description
 customer_id	SERIAL	Unique customer number. Primary key.
 store_id	SMALLINT	Unique store number. Foreign key.
first_name	CHARACTER VARYING (45)	First name of the customer.
last_name	CHARACTER VARYING (45)	Last name of the customer.
email	CHARACTER VARYING (50)	Email address of the customer.
 address_id	SMALLINT	Unique address number. Foreign key.

	activebool	BOOLEAN	Active true or false.
	create_date	DATE	Date of customer's account creation.
	last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.
	active	INTEGER	If the customer's account is active or not.

Links to

Table	Join
address	customer.address_id = address.address_id

Links from



Table	Join
rental	rental.customer_id = customer.customer_id
payment	payment.customer_id = customer.customer_id

Unique Keys

Columns	Name/Description
customer_id	customer_pkey Primary key constraint
address_id	customer_address_id_fkey Foreign key constraint

3.2.2 Staff

Columns

	Column	Data Type	Description
	staff_id	SERIAL	Unique employee number. Primary key.
	first_name	CHARACTER VARYING (45)	Employee's first name.
	last_name	CHARACTER VARYING (45)	Employee's last name.
	address_id	SMALLINT	Employee's address. Foreign key.
	email	CHARACTER VARYING (50)	Employee's email.
	store_id	SMALLINT	Unique store number.
	active	BOOLEAN	If the employee's account is active or
	username	CHARACTER VARYING (16)	Employee's account username.
	password	CHARACTER VARYING (40)	Employee's account password.
	last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.
	picture	BYTEA	Employee's picture.

Links to

Table	Join
address	staff.address_id = address.address_id

Links from




Table	Join
rental	rental.staff_id = staff.staff_id
payment	payment.staff_id = staff.staff_id
store	store.manager_staff_id = staff.staff_id

Unique Keys

Columns	Name/Description
staff_id	staff_pkey Primary key constraint
address_id	staff_address_id_fkey Foreign key constraint

3.2.3 Store

Columns

Column	Data Type	Description
 store_id	SERIAL	Unique store number. Primary key.
 manager_staff_id	SMALLINT	Unique staff manager number. Foreign key.
 address_id	SMALLINT	Unique address number. Foreign key.
last_update	TIMESTAMP WITHOUT TIME ZONE	Date and time of the last update.

Links to

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


Unique Keys

Columns	Name/Description
store_id	store_pkey Primary key constraint
address_id	store_address_id_fkey Foreign key constraint
manager_staff_id	store_manager_staff_id_fkey Foreign key constraint

3.2.4 Address

Columns

Column	Data Type	Description
 address_id	SERIAL	Unique address number. Primary key.

	address	CHARACTER VARYING (50)	Address details.
	address2	CHARACTER VARYING (50)	Extra address details.
	district	CHARACTER VARYING (20)	Name of the district.
	city_id	SMALLINT	Unique city number. Foreign key.
	postal_code	CHARACTER VARYING (10)	Postal code details.
	phone	CHARACTER VARYING (20)	Phone number.
	last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

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

Unique Keys

Columns	Name/Description
address_id	address_pk Primary key constraint
city_id	address_city_fkey Foreign key constraint

3.2.5 City

Columns

Column	Data Type	Description
 city_id	SERIAL	Unique city number. Primary key.
city	CHARACTER VARYING (50)	Name of the city.
 country_id	SMALLINT	Unique country number. Foreign key.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links to

Table	Join
country	city.country_id = country.country_id

Links from


Table	Join
address	address.city_id = city.city_id

Unique Keys

Columns	Name/Description
city_id	city_pkey Primary key constraint
address_id	city_country_id Foreign key constraint

3.2.6 Country

Columns

	Column	Data Type	Description
	country_id	SERIAL	Unique country number. Primary key.
	country	CHARACTER VARYING (50)	Name of the country.
	last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links from



Table	Join
cityl	city.country_id = country.country_id

Unique Keys

Columns	Name/Description
country_id	country_pkey Primary key constraint

3.2.7 Inventory

Columns

	Column	Data Type	Description
	inventory_id	SERIAL	Unique inventory number. Primary key.
	film_id	SMALLINT	Unique film number. Foreign key.
	store_id	SMALLINT	Unique store number. Foreign key.
	last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links to

Table	Join
film	inventory.film_id = film.film_id

Links from



Table	Join
rental	rental.inventory_id = inventory.inventory_id

Unique Keys

Columns	Name/Description
inventory_id	inventory_pkey Primary key constraint
film_id	inventory_film_id_fkey Foreign key constraint

3.2.8 Film

Columns

	Column	Data Type	Description
	film_id	SERIAL	Unique film number. Primary key.
	title	CHARACTER VARYING (255)	Title of the movie.
	description	TEXT	Description of the movie.
	release_year	INTEGER	Year of the movie release.
	language_id	SMALLINT	Unique movie language number. Foreign key.
	rental_duration	SMALLINT	For how long (days?) the movie has been rented.
	rental_rate	NUMERIC (4,2)	Renting score by customers.
	length	SMALLINT	Duration (minutes?) of the movie.
	replacement_cost	NUMERIC (5,2)	Price (\$?) of movie replacement.
	rating	MPAA_RATING	Which age group is allowed to watch the movie.
	last_update	TIMESTAMP WITHOUT TIME ZONE	Date and time of the last update.
	special_features	ARRAY	Special features of the movie.
	fulltext	TSVECTOR	Words from movie's title and description + their counts.

Links to

Table	Join
language	film.language_id = language.language_id

Links from

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


film_category	film_category.film_id = film.film_id
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Unique Keys

Columns	Name/Description
film_id	film_pkey Primary key constraint
language_id	film_language_id_fkey Foreign key constraint

3.2.9 Language

Columns

Column	Data Type	Description
 language_id	SERIAL	Unique language number. Primary key.
name	CHARACTER (20)	Name of the movie language.
last_update	TIMESTAMP WITHOUT TIME ZONE	Date and time of the last update.

Links from



Table	Join
film	film.language_id = language.language_id

Unique Keys

Columns	Name/Description
language_id	language_pkey Primary key constraint

3.2.10 Film Category

Columns

Column	Data Type	Description
 film_id	SMALLINT	Unique film number. Combined key.
 category_id	SMALLINT	Unique store number. Combined key.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links to


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

Unique Keys

Columns	Name/Description
film_id&category_id	film_category_pkey Primary key constraint
film_id	film_category_film_id_fkey Foreign key constraint
category_id	film_category_category_id_fkey Foreign key constraint

3.2.11 Category

Columns

Column	Data Type	Description
 category_id	SERIAL	Unique movie category number. Primary key.
name	CHARACTER VARYING (25)	Name of the category.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links from


Table	Join
film_actor	film_actor.category_id = category.category_id

Unique Keys

Columns	Name/Description
category_id	category_pkey Primary key constraint

3.2.12 Actor

Columns

Column	Data Type	Description
 actor_id	SERIAL	Unique actor number. Primary key.
first_name	CHARACTER VARYING (45)	Actor's first name.
last_name	CHARACTER VARYING (45)	Actor's last name.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links from



Table	Join
film_actor	film_actor.actor_id = actor.actor_id

Unique Keys

Columns	Name/Description
actor_id	actor_pkey Primary key constraint

3.2.13 Film Actor

Columns

Column	Data Type	Description
 actor_id	SMALLINT	Unique actor number. Combined key.
 film_id	SMALLINT	Unique film number. Combined key.
last_update	TIMESTAMP (6) WITHOUT TIME ZONE	Date and time of the last update.

Links to

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

Unique Keys

Columns	Name/Description
film_id&actor_id	film_sctor_pkey Primary key constraint
actor_id	film_actor_actor_id_fkey Foreign key constraint
film_id	film_actor_film_id_fkey Foreign key constraint