# ROCKBUSTER STEALTH
## Premiere at home

# Rockbuster Data Dictionary

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December 2022

# Table of Contents

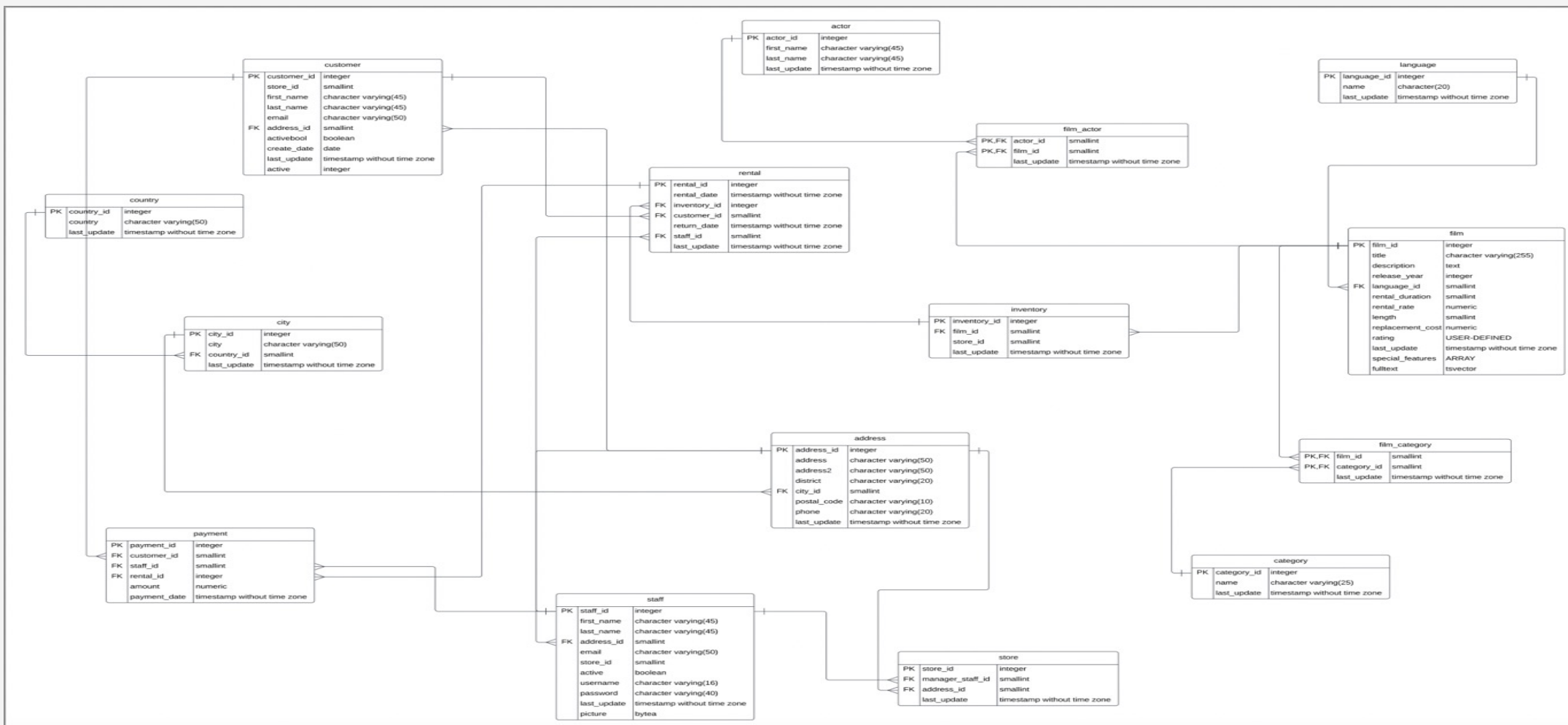# 1. Entity Relationship Diagram

# 2. Legend

🔑 Primary Key

🗝 Foreign Key

SCHEMA TYPE: The Rockbuster Stealth ERD is a snowflake schema as there are multiple dimension tables (i.e inventory) that link to other dimension (i.e film) or sub dimension tables (i.e film category)

# 3. Fact Tables / 3.1 Rental

| Keys | Columns | Data Type | Description | Links to/from |
|---|---|---|---|---|
| 🔑 | rental _id | integer serial | Surrogate key auto populated serial number by the system to identify the rental transactions | from payment |
| | rental_date | time stamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when rental occured | |
| 🔑 | inventory_id | integer | Foreign key to the Rental table and Primary key to the Inventory table / Identifying the stock item | to inventory |
| 🔑 | customer_id | smallint | Foreign key to Rental table and Primary key to Customer table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the unique customer | to customer |
| | return_date | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ rental returned back | |
| 🔑 | staff_id | smallint | Foreign key to Rental table and Primary key to Staff table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the staff member | to staff |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 3.2 Payment

| Keys | Columns | Data Type | Description | Links to/from |
|---|---|---|---|---|
| 🔑 | payment_id | integer serial | Surrogate key auto populated serial number by the system to identify the payment transactions | |
| 🔑 | customer_id | smallint | Foreign key to Payment table and Primary key to Customer table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the unique customer | to customer |
| 🔑 | staff_id | smallint | Foreign key to Payment table and Primary key to Staff table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the staff member | to staff |
| 🔑 | rental_id | integer serial | Surrogate key auto populated serial number by the system to identify the rental transactions | to rental |
| | amount | numeric | floating point number/ the amount paid | |
| | payment date | timestamp without timezone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when transaction has gone through | |

# 4. Dimension Tables/ 4.1 Customer

| Keys | Columns | Data Type | Description | Links to/from |
|---|---|---|---|---|
| 🔑 | customer_id | smallint | Primary key to Customer table and Foreign key to Rental and Payment tables. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the unique customer | from rental, payment |
| | store_id | smallint | Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the store | |
| | first_name | character varying(45) | 45 characters length / first name of customer | |
| | last_name | character varying(45) | 45 characters length / last name of customer | |
| | email | character varying(50) | 50 characters length / customer's contact email | |
| 🔑 | address _id | smallint | Foreign key to Customer table and Primary key to Address table / Formed in small whole numbers that range from -32,767 to 32,767 / Identifying auto populated unique customer's address | to address |
| | activebool | boolean | True, false or null value / active or not | |
| | create_date | date | yyyy-mm-dd / record date creation | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |
| | active | bolean | true or false | |

# 4.2 Address

| Keys | Columns | Data Type | Description | Links to/from |
|------|---------|-----------|-------------|---------------|
| 🔑 | address_id | integer serial | Primary key to Address table and Foreign key to Customer, Staff and Store tables. Auto populated serial number by the system to identify the staff member's address | from store, staff & customer |
| | address | character varying(50) | 50 characters length / staff member's 1st line of address | |
| | address 2 | character varying(50) | 50 characters length / staff member's 2nd line of address | |
| | district | character varying(20) | 20 characters length / staff member's district | |
| 🔑 | city_id | smallint | Foreign key to Address table and Primary key to City table / Formed in small whole numbers that range from -32,767 to 32,767 / Identifying auto populated unique staff member's city | to city |
| | postal_code | character varying(10) | 10 characters length / staff's postal code | |
| | phone | character varying(20) | 20 characters length / staff member's contact number | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.3 Store

| Keys | Columns | Data Type | Description | Links to/from |
|:---:|:---:|:---:|:---:|:---:|
| 🔑 | store_id | integer serial | Primary key to Store. Auto populated serial number by the system to identify the Store's name | |
| 🔑 | manager_staff_id | smallint | Foreign key to Store table Formed in small whole numbers that range from -32,767 to 32,767 / Auto populated unique identifying number linking Manager and Staff ID | to staff |
| 🔑 | address _id | smallint | Foreign key to Staff and Store tables, Primary key to Address table / Formed in small whole numbers that range from -32,767 to 32,767 / Identifying auto populated unique staff member's address | to address |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

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# 4.4 Staff

| Keys | Columns | Data Type | Description | Links to/from |
|------|---------|-----------|-------------|---------------|
| 🔑 | staff_id | smallint | Primary key to Staff table and Foreign key to Payment and Store tables. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the staff member | From store, rental & payment |
| | first_name | character varying(45) | 45 characters length / first name of staff member | |
| | last_name | character varying(45) | 45 characters length / last name of staff member | |
| 🔑 | address _id | smallint | Foreign key to Staff and Rental tables, Primary key to Address table / Formed in small whole numbers that range from -32,767 to 32,767 / Identifying auto populated unique staff member's address | to address |
| | email | character varying(50) | 50 characters length / staff's contact email | |
| 🔑 | store_id | smallint | Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the store | to store |
| | active | boolean | True, false or null value / active or not | |
| | username | character varying(16) | 16 characters length / staff's own created username | |
| | password | character varying(40) | 40 characters length / staff's own unique password | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |
| | picture | bytea | binary raw image data in JPEG or PNG format | |

# 4.5 City

| Keys | Columns | Data Type | Description | Links to/from |
|:---:|:---:|:---:|:---:|:---:|
| 🔑 | city_id | integer serial | Primary key auto populated serial number by the system to identify the city stores are located | From address |
| 🔑 | country | character varying(50) | 50 characters length / Foreign key to City table and Primary to Country table. store's city location | to country |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.6 Country

| Keys | Columns | Data Type | Description | Links to/from |
|------|---------|-----------|-------------|---------------|
| 🔑 | country_id | integer serial | Primary key auto populated serial number by the system to identify the country stores are located | from city |
| | country | character varying(50) | 50 characters length / store's country location | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.7 Inventory

| Keys | Columns | Data Type | Description | Links to/from |
|------|---------|-----------|-------------|---------------|
| 🔑 | inventory_id | integer serial | Primary key to the Rental table and Primary key to the Inventory table / Identifying the stock item | from rental |
| 🔑 | film_id | smallint | Foreign key to Inventory table and Primary key to Film table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the unique film | to film |
| | store_id | smallint | Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the store | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.8 Film

| Keys | Columns | Data Type | Description | Links to/from |
|---|---|---|---|---|
| 🔑 | film_id | integer serial | Primary key to Film and Film ACtor tables and Foreign key to Film Actor table. Auto populated serial number by the system to identify the film name | From inventory, film.category & film.actor |
| | title | character varying(255) | 255 characters length / name of the movie | |
| | description | text | unlimited characters to describe the movie | |
| | release_year | integer | 4 bytes storage size that can store numbers in the range of (-2,147,483,648, 2,147,483,647)/ release of the movie | |
| 🔑 | language_id | smallint | Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the language of the movie | To language |
| | rental_duration | smallint | Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the length of the rental by the customer | |
| | rental _rate | numeric | floating point number/ the amount the movie costs | |
| | length | smallint | Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the length of the movie | |
| | replacement_cost | numeric | floating point number/ the amount the movie costs to replace if lost or damaged | |
| | rating | MPAA_rating | rating by the motion picture association | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |
| | special_features | text | unlimited characters to describe additional elements that the movie recording includes | |
| | fulltext | tsvector | list all the keywords related to this film | |

# 4.9 Film.Category

| Keys | Columns | Data Type | Description | Links to/from |
|---|---|---|---|---|
| 🔑🔑 | film_id | smallint | Primary key to Film and Film Actor tables and Foreign key to Film Actor and Film Category tables. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the film | to film |
| 🔑🔑 | category_id | smallint | Primary key to Category and Film Category tables and Foreign key to Film and table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying the category of the film | To category |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.10 Category

| Keys | Columns | Data Type | Description | Links to/from |
|------|---------|-----------|-------------|---------------|
| 🔑 | category_id | integer serial | Primary key to Category. Auto populated serial number by the system to identify the category name | From film.category |
| | name | character varying(25) | 25 characters length / name of the movie | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.11 Language

| Keys | Columns | Data Type | Description | Links to/from |
|:---:|:---:|:---:|:---:|:---:|
| 🔑 | language_id | integer serial | Primary key to Language table and Foreign key to Film table. Auto populated serial number by the system to identify the language | From film |
| | name | character varying(20) | 20 characters length / name of the language | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.12 Film.Actor

| Keys | Columns | Data Type | Description | Links to/from |
|:---:|:---:|:---:|:---:|:---:|
| 🔑🗝️ | actor_id | smallint | Primary key to Actor & Film Actor tables and Foreign key to Film Actor table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying unique actor | To actor |
| 🔑🗝️ | film_id | smallint | Primary key to Film Actor & Film tables and Foreign key to Film Actor table. Formed in small whole numbers that range from -32,767 to 32,767 / Identifying unique number for each film | To film |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

# 4.13 Actor

| Keys | Columns | Data Type | Description | Links to/from |
|:---:|:---:|:---:|:---:|:---:|
| 🔑 | actor_id | integer serial | Primary key to Actor & Film Actor tables and Foreign key to Film Actor table. Auto populated serial number by the system to identify the actor name | from actor |
| | first_name | character varying(45) | 45 characters length / first name of actor | |
| | last_name | character varying(45) | 45 characters length / last name of actor | |
| | last_update | timestamp without time zone | date format yyyy-mm-dd including time (hour, minutes, seconds)/ when record was last updated | |

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# Thank you!

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