# Data Dictionary

## For

## Rock buster Stealth LLC

## Data Dictionary

2023-02-013

Rockbuster Stealth LLC

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## Introduction

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 to stay competitive. Rockbuster has hired a data analyst for its business intelligence (BI) department to help with the launching strategy for the new online video service.

The BI department helps other departments, from inventory to customer insights, with data-related queries.

### Key Questions and Objectives

The Rockbuster Stealth Management Board has asked a series of business questions and they expect data-driven answers that they can use for their 2020 company strategy. They have some questions they'd like to answer as follows:

- ➢ Which movies contributed the most/least to revenue gain?
- ➢ What was the average rental duration for all videos?
- ➢ Which countries are Rockbuster customers based in?
- ➢ Where are customers with a high lifetime value based?
- ➢ Do sales figures vary between geographic regions?

This data dictionary is for the Rockbuster PostgreSQL database. This data set contains information about Rockbuster's film inventory, customers, and payments, among other things stating what type of data types it contains and how they are related or connected in the database, which can be downloaded from here: Rockbuster data set.
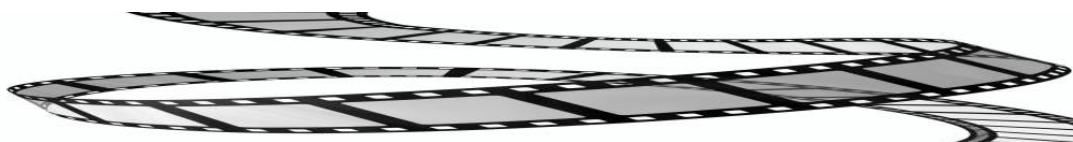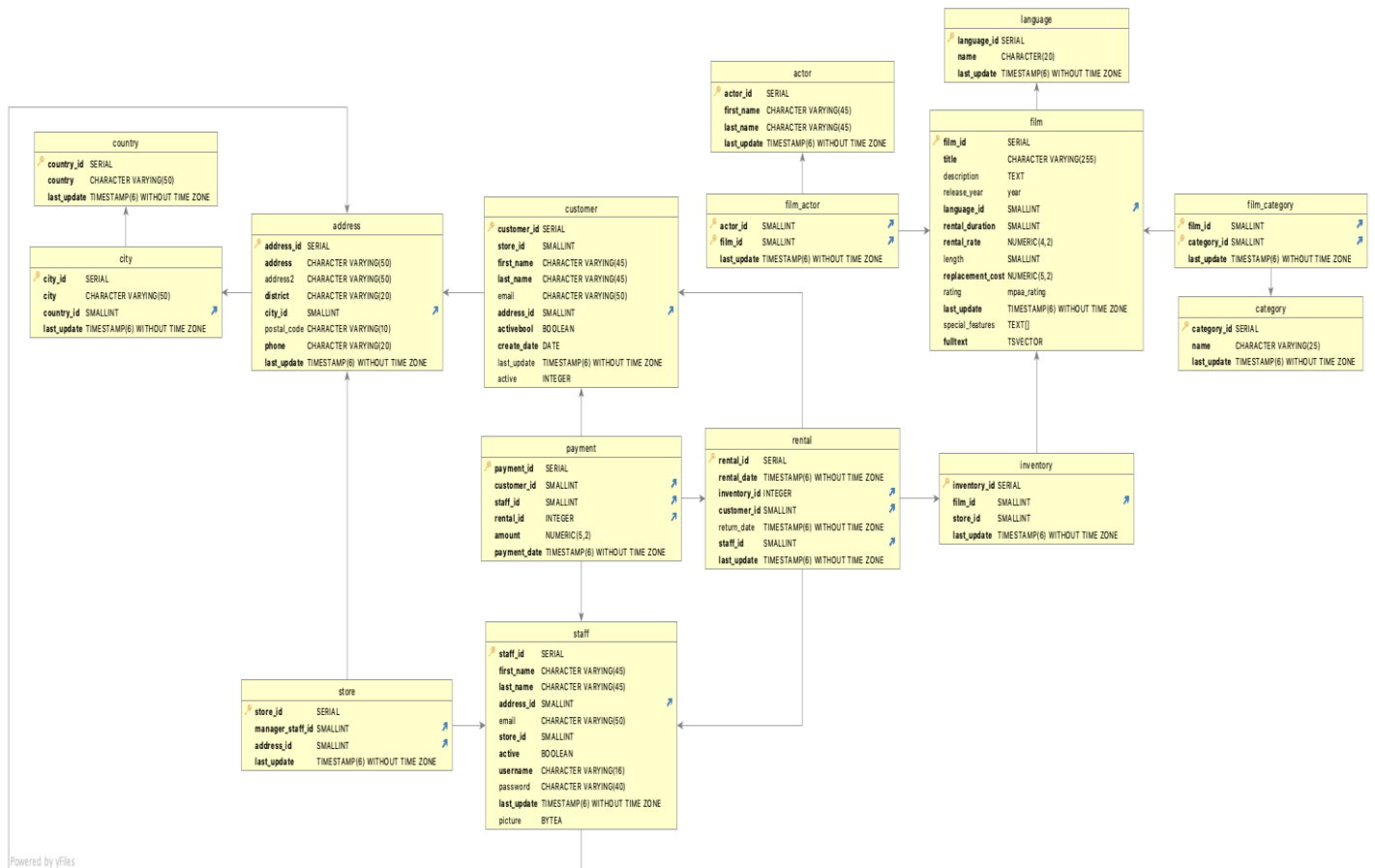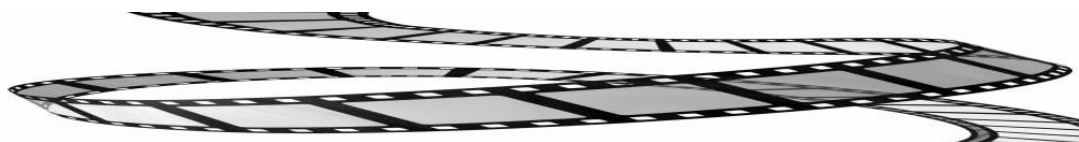
Entity Relationship Diagram (ERD) of Rockbuster's Database

# Table type defination

| Data types | Definition |
| --- | --- |
| **Boolean** | Zero is considered as false, nonzero values are considered as true. |
| **Bytea** | Allows storage of binary strings used to hold non-traditional data such as pictures. |
| **Character Varying(n)** | Stores a string of letters, digits, and symbols of varying length, where n is a positive integer and can store up to n characters in length. |
| **Date** | A date. Format: YYYY-MM-DD. The supported range is from '1000-01-01' to '9999-12-31'. |
| **Integer** | An integer. Signed range is from -2147483648 to 2147483647. Unsigned range is from 0 to 4294967295. |
| **Mpaa_rating** | Contains the familiar rating for that film like PG or R. |
| **Numeric(p,s)** | Fixed precision and scale numbers.<br>The p parameter indicates the maximum total number of digits that can be stored (both to the left and to the right of the decimal point). p must be a value from 1 to 38. Default is 18.<br>The s parameter indicates the maximum number of digits stored to the right of the decimal point. s must be a value from 0 to p. Default value is 0. |
| **Primary key** | The column that contains values that uniquely identifies each row in a table. |
| **Serial** | Stores a sequential integer, of the INT data type, that is automatically assigned by the database server when a new row is inserted. |
| **Smallint** | A small integer. Signed range is from -32768 to 32767. Unsigned range is from 0 to 65535. |
| **Text / Text []** | Stores character of unlimited length. |
| **Timestamp(n) without time zone** | A timestamp to store date and time data including year, month, day, hour, minute and second ignoring any time zone indication. The number (0 or 6) is the number of digits for fractions of a second that you want to store. 6 is the maximum. |
| **Tsvector** | Stores text structure in the document format. |
| **Year** | A year in four-digit format. Values allowed in four-digit format: 1901 to 2155, and 0000. |

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# Fact Tables

## Rental Table

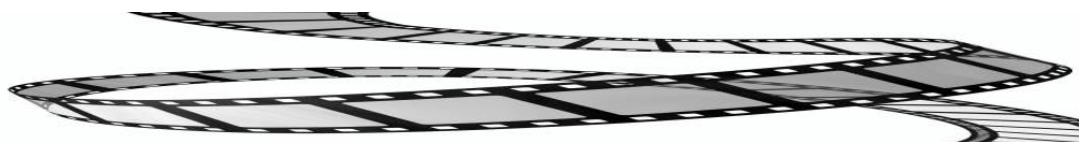| Column | | Data Type | Description |
|---|---|---|---|
| Rental_id | Primary key | Serial | Rental identification number |
| Rental_date | | Timestamp(6) without time zone | Rental date and time without time zone |
| Inventory_id | | Integer | Inventory identification number |
| Customer_id | | smallint | Customer identification number |
| Return_date | | Timestamp(6) without time zone | Return date and time without time zone |
| Staff_id | | smallint | Staff identification number |
| Last_update | | Timestamp(6) without time zone | Last update date and time without time zone |

## Link

| Table | Join Column | Link Name |
|---|---|---|
| **Payment** | Rental_id | Payment.rental_id_fkey |
| **Inventory** | Inventory_id | Rental.inventory_id_fkey |
| **Customer** | Customer_id | Rental.customer_id_fkey |
| **Staff** | Staff_id | Rental.staff_id_fkey |

## Payment Table

| Column | Data Type | Description |
|---|---|---|
| Payment_id | Serial | Payment identification number |
| Customer_id | smallint | Customer identification number |
| Staff_id | smallint | Staff identification number |
| Rental_id | Integer | Rental identification number |
| Payment_date | Timestamp(6) without time zone | Payment date and time without time zone |

## Link

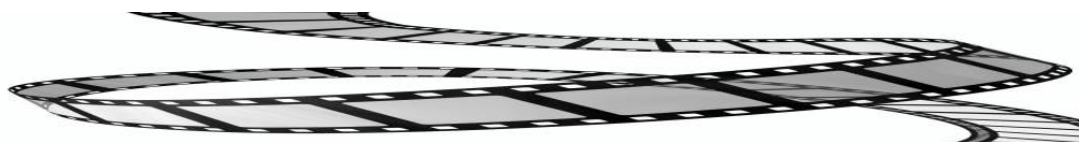| Table | | Join Column | Link Name |
|---|---|---|---|
| **Customer** | | Customer_id | Payment.customer_id_f_key |
| **Staff** | | Staff_id | Payment.staff_id_f_key |
| **Rental** | | Rental_id | Payment.rental_id_f_key |

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# Dimension Tables

## Customer Table

| Column | | Data Type | Description |
|---|---|---|---|
| Customer_id | Primary key | Serial | Customer identification number |
| Store_id | | Smallint | Store identification number |
| First_name | | Character varying(45) | Customer first name |
| Last_name | | Character varying(45) | Customer last name |
| Email | | Character varying(50) | Customer email |
| Address_id | | Smallint | Customer address |
| Activebool | | Boolean | Customer active or not active |
| Create_date | | Date | Date customer file was created |
| Last_update | | Timestamp(6) without time zone | Last update date and time without time zone |
| Active | | Integer | Shows 1 or 0 in the table but not sure what it means |

## Links

| Table | Join Column | Link Name |
|---|---|---|
| **Rental** | Customer_id | Rental.customer_id_fkey |
| **Payment** | Customer_id | Payment.customer_id_fkey |
| **Address** | Address_id | Customer.address_id_fkey |

## Staff Table

| Column | Data Type | Description |
|---|---|---|
| Staff_id | Serial | Staff identification number |
| First_name | Character varying(45) | Staff first name |
| Last_name | Character varying(45) | Staff last name |
| Address_id | Smallint | Staff address |
| Email | Character varying(50) | Staff email |
| Store_id | Smallint | Staff assigned store |
| Active | Boolean | Staff active or not active |
| Username | Character varying(16) | Staff username |
| Password | Character varying(40) | Staff password |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |
| Picture | Bytea | Staff photo |

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# Links

| Table | Join Column | Link Name |
|---|---|---|
| **Store** | Staff_id | Store.staff_id_fkey |
| **Rental** | Staff_id | Rental.staff_id_fkey |
| **Payment** | Staff_id | Payment.staff_id_fkey |
| **Address** | Address_id | Staff.address_id_fkey |

# Store Table

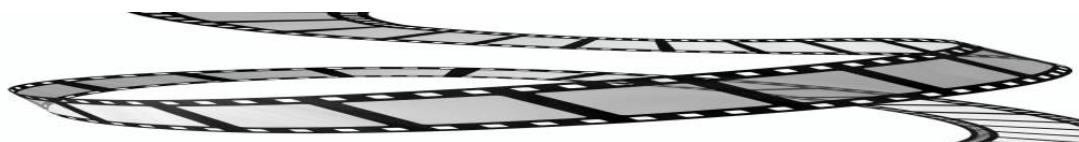| Column | Data Type | Description |
|---|---|---|
| Store_id | Serial | Store identification number |
| Manager_staff_id | smallint | Manager staff identification number |
| Address_id | smallint | Address identification number |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

*Links*

| Table | Join Column | Link Name |
|---|---|---|
| **Staff** | Staff_id | Store.staff_id_fkey |
| **Address** | Address_id | Store.address_id_fkey |

# Film_actor Table

| Column | Data Type | Description |
|---|---|---|
| Actor_id | smallint | Actor identification number |
| Film_id | smallint | Film identification number |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

# Links

| Table | Join Column | Link Name |
|---|---|---|
| **Actor** | Actor_id | Film.actor_actor_id_fkey |
| **Film** | Film_id | Film.actor_film_id_fkey |

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# Inventory Table

| Column | Data Type | Description |
|---|---|---|
| Inventory_id | Serial | Inventory identification number |
| Film_id | Smallint | Film identification number |
| Store_id | Smallint | Store identification number |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

# Links

| Table | Join Column | Link Name |
|---|---|---|
| **Rental** | Inventory_id | Rental.inventory_id_fkey |
| **Film** | Film_id | Inventory.film_id_fkey |

# Film_category Table

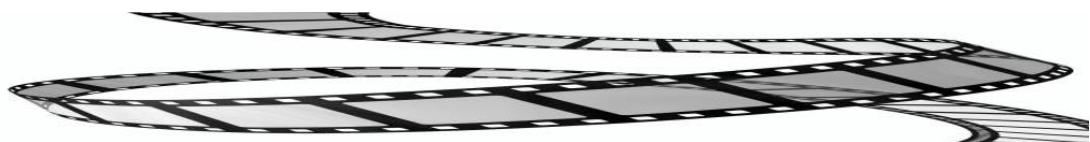| Column | Data Type | Description |
|---|---|---|
| Film_id | Smallint | Film identification number |
| Category_id | Smallint | Category identification number |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

# Links

| Table | Join Column | Link Name |
|---|---|---|
| **Film** | Film_id | Film.category_film_id_fkey |
| **Category** | Category_id | Film.category_category_id_fkey |

## Actor Table

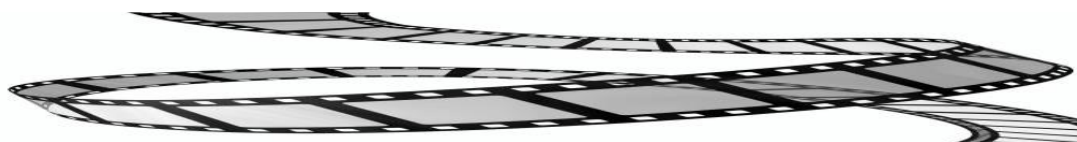| Column | Data Type | Description |
|---|---|---|
| Actor_id | Serial | Actor identification number |
| First_name | Character varying(45) | Actor first name |
| Last_name | Character varying(45) | Actor last name |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

## Links

| Table | Join Column | Link Name |
|---|---|---|
| **Film_actor** | Actor_id | Film.actor_actor_id_fkey |

## Film Table

| Column | Data Type | Description |
|---|---|---|
| Film_id | Serial | Film identification number |
| Title | Character varying(255) | Film title |
| Description | Text | Film description |
| Release_year | Year | Film release year |
| Language_id | Smallint | Language identification number |
| Rental_duration | Smallint | Rental duration |
| Rental_rate | Numeric(4.2) | Rental rate in USD |
| Length | Smallint | Film length |
| Replacement_cost | Numeric(5.2) | Replacement cost in USD |
| Rating | Mpaa_rating | Film rating |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |
| Special_features | Text[] | Special features |
| Fulltext | Tsvector | Full text |

## *Links*

| Table | Join Column | Link Name |
|---|---|---|
| **Inventory** | Film_id | Inventory.film_id_fkey |
| **Film_category** | Film_id | Film.category_film_id_fkey |
| **Film_actor** | Film_id | Film.actor_film_id_fkey |
| **Language** | Language_id | Film.language_id_fkey |

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## Category Table

| Column | Data Type | Description |
|---|---|---|
| Category_id | Serial | Category identification number |
| Name | Character varying(25) | Film Category |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

## Links

| Table | Join Column | Link Name |
|---|---|---|
| **Film_category** | Category_id | Film.category_category_id_fkey |

## Address Table

| Column | Data Type | Description |
|---|---|---|
| Address_id | Serial | Address identification number |
| Address | Character varying(45) | Address line 1 |
| Address2 | Character varying(45) | Address line 2 |
| District | Character varying(45) | District/State |
| City_id | smallint | City |
| Postal_code | Character varying(45) | Postal code |
| Phone | Character varying(45) | Phone number |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

## Links

| Table | Join Column | Link Name |
|---|---|---|
| **Store** | Address_id | Store.address_id_fkey |
| **Staff** | Address_id | Staff.address_id_fkey |
| **Customer** | Address_id | Customer.address_id_fkey |
| **City** | City_id | City.city_id_fkey |

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## Language Table

| Column | Data Type | Description |
|---|---|---|
| Language_id | Serial | Language identification number |
| Name | Character(20) | Language name |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

*Links*

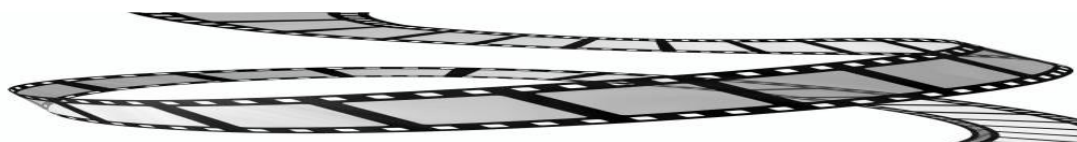| Table | Join Column | Link Name |
|---|---|---|
| **Film** | Language_id | Film.language_id_fkey |

## City Table

| Column | Data Type | Description |
|---|---|---|
| City_id | Serial | City identification number |
| City | Character varying(50) | City |
| Country_id | Smallint | Country identification number |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

## Links

| Table | Join Column | Link Name |
|---|---|---|
| **Address** | City_id | Address.city_id_fkey |
| **Country** | Country_id | Country.country_id_fkey |

## City Table

| Column | Data Type | Description |
|---|---|---|
| Country_id | Serial | Country identification number |
| Country | Character varying(50) | Country |
| Last_update | Timestamp(6) without time zone | Last update date and time without time zone |

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# Link

| Table | Join Column | Link Name |
|-------|-------------|-----------|
| City | Country_id | City.country_id_fkey |

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