

# ROCKBUSTER STEALTH LLC

# Unleashing Rockbuster's Online

A strategic blueprint for video rental supremacy

**DATA DICTIONARY** 

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**Data immersion Exercise 3.10** 

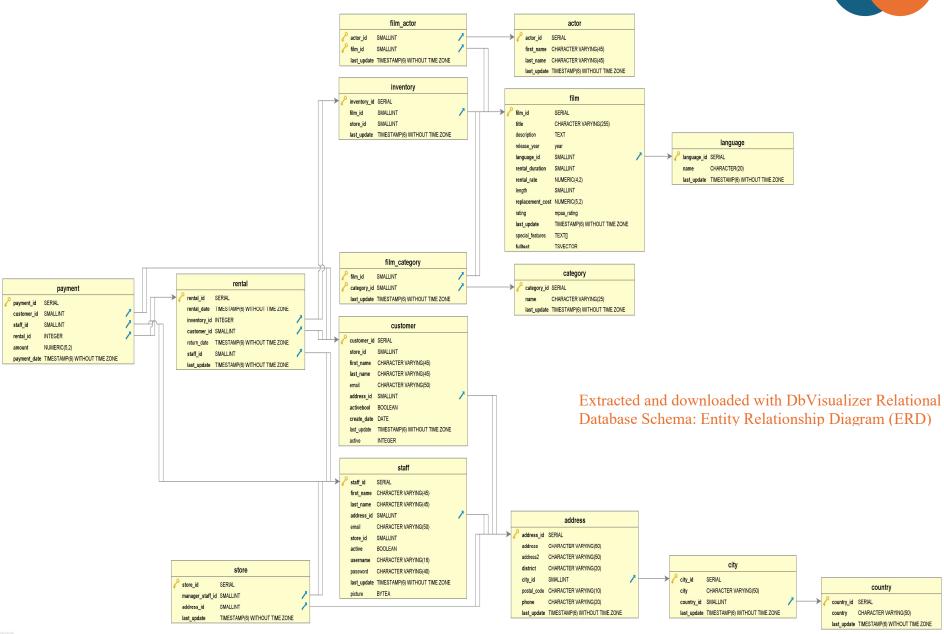
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#### 1. ROCKBUSTER DATABASE ERD





# 2. FACT TABLES



#### **2.1 PAYMENT**

| Key | Column       | Data Type         | Description   | Links      |
|-----|--------------|-------------------|---|------------|
| PK  | payment_id   | Serial            | Integer value. Unique identifier for payments.                  |            |
| FK  | customer_id  | Smallint          | Small integer. Unique identification code for customers.        | → customer |
| FK  | staff_id     | Smallint          | Small integer. Unique identification code for Rockbuster staff, | → staff    |
|     |              |                   | employees.  |            |
| FK  | rental_id    | Integer           | Integer value. Unique identifier for rental transactions        | → rental   |
|     | Amount       | Numeric(5,2)      | Price of the rental. Number representing a monetary amount,     |            |
|     |              |                   | with max. 5 digits with 2 number after the decimal point.       |            |
|     | payment_date | Timestamp(6)      | Date of the payment transaction. Stores both date and time      |            |
|     |              | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)      |            |

### **2.2 RENTAL**

| Key | Column       | Data Type         | Description   | Links       |
|-----|--------------|-------------------|---|-------------|
| PK  | rental_id    | Serial            | Integer value. Unique identifier for rental transactions.         | ←payment    |
|     | rental_date  | Timestamp(6)      | Data of the rental transaction. Stores both date and time values, |             |
|     |              | without time zone | (3333)  |             |
| FK  | inventory_id | Integer           | Integer value. Unique identifier for inventory items, film stock  | → inventory |
|     |              |                   | available to be rented by customers.                              | •           |
| FK  | customer_id  | Smallint          | Small integer. Unique identification code for customers.          | → customer  |
|     | return_date  | Timestamp(6)      | Date of the rental to be returned. Stores both date and time      |             |
|     | _            | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)        |             |
| FK  | staff_id     | Smallint          | Small integer. Unique identification code for Rockbuster staff,   | → staff     |
|     |              |                   | employees.  |             |
|     | last_update  | Timestamp(6)      | Date and time of the last update. Stores both date and time       |             |
|     |              | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)        |             |

### 3. DIMENSION TABLES



#### 3.1 ACTOR

| Key | Column      | Data Type         | Description   | Links       |
|-----|-------------|-------------------|---|-------------|
|     |             |                   |   |             |
| PK  | actor_id    | Serial            | Integer value. Unique identifier for actor.                 | ←film_actor |
|     | first_name  | Character         | First name of the actor. Text with a maximum length of 45   |             |
|     |             | Varying(45)       | characters.   |             |
|     | last_name   | Character         | Last name of the actor. Text with a maximum length of 45    |             |
|     |             | Varying(45)       | characters.   |             |
|     | last_update | Timestamp(6)      | Date and time of the last update. Stores both date and time |             |
|     |             | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)  |             |

### 3.2 ADDRESS

| Key | Column      | Data Type         | Description   | Links              |
|-----|-------------|-------------------|---|--------------------|
| PK  | address_id  | Serial            | Integer value. Unique identifier for address. It is used to identify addresses in the database, from the Stores, Customers and Staff. | ← customer         |
|     |             |                   |   | ← store<br>← staff |
|     | Address     | Character         | Address used in the database, line 1 (number, street name). Text  |                    |
|     |             | Varying(50)       | with a maximum length of 50 characters  |                    |
|     | address2    | Character         | Extra address details if needed, line 2. Text with a maximum  |                    |
|     |             | Varying(50)       | length of 50 characters.  |                    |
|     | District    | Character         | Name of the district or region. Text with a maximum length of   |                    |
|     |             | Varying(20)       | 20 characters   |                    |
| FK  | city_id     | Smallint          | Small integer. Unique identification code for city.   | → city             |
|     | postal_code | Character         | Postal code. Text with a maximum length of 10 characters.   |                    |
|     |             | Varying(10)       |   |                    |
|     | phone       | Character         | Phone number. Text with a maximum length of 20 characters   |                    |
|     |             | Varying(20)       |   |                    |
|     | last_update | Timestamp(6)      | Date and time of the last update. Stores both date and time   |                    |
|     |             | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)  |                    |

### 3.3 CATEGORY

| Key | Column      | Data Type                | Description  | Links          |
|-----|-------------|--------------------------|--|----------------|
| PK  | category_id | Serial                   | Integer value. Unique identifier for category. It is used to identify film categories.                                 | ←film_category |
|     | name        | Character Varying(45)    | Name of the category. Text with a maximum length of 25 characters.   |                |
|     | last_update | Character<br>Varying(25) | Date and time of the last update. Stores both date and time values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss) |                |

# **3.4 CITY**

| Key | Column      | Data Type                      | Description  | Links     |
|-----|-------------|--------------------------------|--|-----------|
| PK  | city_id     | Serial                         | Integer value. Unique identifier for city. It is used to identify the city in the database, from the Stores, Customers and Staff.                | ← address |
|     | city        | Character Varying(50)          | City name. Text with a maximum length of 50 characters.  |           |
| FK  | country_id  | Smallint                       | Small integer. Unique identification code for country. It is used to identify the country in the database, from the Stores, Customers and Staff. | → country |
|     | last_update | Timestamp(6) without time zone | Date and time of the last update. Stores both date and time values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)                           |           |

# 3.5 COUNTRY

| Key | Column      | Data Type         | Description   | Links  |
|-----|-------------|-------------------|---|--------|
| PK  | country_id  | Serial            | Integer value. Unique identification code for country. It is used | ← city |
|     |             |                   | to identify the country in the database, from the Stores,         |        |
|     |             |                   | Customers and Staff.  |        |
|     | country     | Character         | Name of the country. Text with a maximum length of 50             |        |
|     |             | Varying(50)       | characters.   |        |
|     | last_update | Timestamp(6)      | Date and time of the last update. Stores both date and time       |        |
|     |             | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)        |        |



# 3.6 CUSTOMER

| Key | Column      | Data Type                      | Description   | Links                 |
|-----|-------------|--------------------------------|---|-----------------------|
| PK  | customer_id | Serial                         | Integer value. Unique identification code for customers.  | ← rental<br>← payment |
|     | store_id    | Smallint                       | Small integer. Unique identification code for store. It is used to identify Rockbuster' stores.   |                       |
|     | first_name  | Character Varying(45)          | First name of the customer. Text with a maximum length of 45 characters.  |                       |
|     | last_name   | Character Varying(45)          | Last name of the customer. Text with a maximum length of 45 characters.   |                       |
|     | email       | Character Varying(50)          | Email address of the customer. Text with a maximum length of 50 characters  |                       |
| FK  | address_id  | Smallint                       | Address of the customer. Small Integer. Unique identification code for address. It is used to identify addresses in the database, from the Stores, Customers and Staff. | → address             |
|     | activebool  | Boolean                        | Customer account status, it indicates if customer's account is active. Boolean value (true, false, null)  |                       |
|     | create_date | Date                           | Date of customer's account creation. Date value (yyyy-mm-dd).   |                       |
|     | last_update | Timestamp(6) without time zone | Date and time of the last update. Stores both date and time values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)  |                       |
|     | active      | Integer                        | Number to indicate whether the customer account is active or not. Integer (1,0)   |                       |



# **3.7** FILM

| Key | Column           | Data Type    | Description   | Links   |
|-----|------------------|--------------|---|---|
| PK  | film_id          | Serial       | Integer value. Unique identification code for film. It is used to identify each rental item.  | ← film_actor<br>←Film_category<br>← inventory |
|     | title            | Character    | Title of the film. Text with a maximum length of 255  |   |
|     |                  | Varying(255) | characters, including spaces.   |   |
|     | description      | Text         | Description of the film, synopsis. Text, unlimited length   |   |
|     | release_year     | Year         | The year that the film was released. Integer value.   |   |
| FK  | language_id      | Smallint     | Small integer. Unique identification code for the language of the film.   | → language                                    |
|     | rental_duration  | Smallint     | Rental duration, in total number of days. Small integer   |   |
|     | rental_rate      | Numeric(4,2) | Rental rate, price. Numerical, 4 digits total with 2 after the decimal  |   |
|     | length           | Smallint     | The length of the film, in minutes. Small integer.  |   |
|     | replacement_cost | Numeric(5,2) | The cost for the customer of replacing the film in case of damage or lost. Number representing a monetary amount, with max. 5 digits with 2 number after the decimal point. |   |
|     | rating           | Mpaa_rating  | Age rating of the film. Film rating introduced by Movie Picture Association   |   |
|     | last_update      | Timestamp(6) | Date and time of the last update. Stores both date and time   |   |
|     |                  | without time | values, without timezone-aware (yyyy-mm-dd  |   |
|     |                  | zone         | hh:mm:ss.ssssss)  |   |
|     | special_features | Text[]       | Special features related to the film, extra video content included. Text array  |   |
|     | fulltext         | TSVECTOR     | The full list of keywords related to the film. Text   |   |



# 3.9 FILM\_ACTOR

| Key       | Column      | Data Type                      | Description  | Links   |
|-----------|-------------|--------------------------------|--|---------|
| FK,<br>PK | actor_id    | Smallint                       | Primary (composite?) and Foreign Key. Small Integer. Unique identifier for actor.                                      | → actor |
| FK,<br>PK | actor_id    | Smallint                       | Primary (composite?) and Foreign Key. Small Integer. Unique identifier for actor.                                      | → film  |
|           | last_update | Timestamp(6) without time zone | Date and time of the last update. Stores both date and time values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss) |         |

# 3.10 FILM\_CATEGORY

| Key | Column      | Data Type         | Description  | Links      |
|-----|-------------|-------------------|--|------------|
|     |             |                   |  |            |
| FK, | film_id     | Smallint          | Primary (composite?) and Foreign Key. Small Integer. Unique      | → film     |
| PK  |             |                   | identifier for film.   |            |
| FK, | category_id | Smallint          | Primary (composite?) and Foreign Key. Small Integer. Unique      | → category |
| PK  |             |                   | identifier for category. It is used to identify film categories. |            |
|     | last_update | Timestamp(6)      | Date and time of the last update. Stores both date and time      |            |
|     |             | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)       |            |

### **3.11 INVENTORY**

| Key | Column       | Data Type | Description   | Links          |
|-----|--------------|-----------|---|----------------|
| PK  | inventory_id | Serial    | Integer value. Unique identifier for inventory items, film stock available to be rented by customers. | ← rental       |
| FK  | film_id      | Smallint  | Small Integer. Unique identifier for film   | → film → store |
|     | store_id     | Smallint  | Small integer. Unique identification code for store. It is used to identify Rockbuster' stores.       |                |

| la | ast_update | Timestamp(6)      | Date and time of the last update. Stores both date and time |  |
|----|------------|-------------------|---|--|
|    |            | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.ssssss) |  |

# **3.12 LANGUAGE**

| Key | Column      | Data Type                      | Description  | Links  |
|-----|-------------|--------------------------------|--|--------|
| PK  | language_id | Serial                         | Integer value. Unique identification code for the language of the film.  | ← Film |
|     | name        | Character (20)                 | Name of the language. Text with maximum length of 20 characters.   |        |
|     | last_update | Timestamp(6) without time zone | Date and time of the last update. Stores both date and time values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss) |        |

# **3.13 STAFF**

| Key | Column     | Data Type   | Description   | Links     |
|-----|------------|-------------|---|-----------|
| PK  | staff_id   | Serial      | Integer value. Unique identification code for Rockbuster staff,     | ← Rental  |
|     |            |             | employees.  | ← payment |
|     |            |             |   | ← store   |
|     | first_name | Character   | First name of the employee. Text with a maximum length of 45        |           |
|     |            | Varying(45) | characters.   |           |
|     | last_name  | Character   | Last name of the employee. Text with a maximum length of 45         |           |
|     |            | Varying(45) | characters.   |           |
| FK  | address_id | Smallint    | Address of the customer. Small Integer. Unique identification       | → address |
|     |            |             | code for address. It is used to identify addresses in the database, |           |
|     |            |             | from the Stores, Customers and Staff.                               |           |
|     | email      | Character   | Email address of the employee. Text with a maximum length of        |           |
|     |            | Varying(50) | 50 characters   |           |
|     | store_id   | Smallint    | Small integer. Unique identification code for store. It is used to  |           |
|     |            |             | identify Rockbuster' stores.  |           |

| active      | Boolean           | Employee account status, it indicates if customer's account is    |
|-------------|-------------------|---|
|             |                   | active. Boolean value (true, false, null)                         |
| username    | Character         | Employee's username, login ID to acces to the Rockbuster's        |
|             | Varying(16)       | intranet. Text with a maximum length of 16 characters             |
| password    | Character         | Employee's password, login password to acces to the               |
|             | Varying(40)       | Rockbuster's intranet. Text with a maximum length of 40           |
|             |                   | characters  |
| last_update | Timestamp(6)      | Date and time of the last update. Stores both date and time       |
|             | without time zone | values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)        |
| active      | Bytea             | Employee's picture. BYTEA data type stores binary strings in      |
|             |                   | the database, it can only store binary data up to 1GB in a single |
|             |                   | BYTEA column. In this case, it stores pictures.                   |

#### **3.14 STORE**

| Key | Column           | Data Type                      | Description   | Links           |
|-----|------------------|--------------------------------|---|-----------------|
| PK  | store_id         | Serial                         | Integer value. Unique identification code for store. It is used   | ← inventory     |
| FK  | manager_staff_id | Smallint                       | to identify Rockbuster' stores.  Small Integer. Unique identification code for the manager of the staff. It is linked to the staff id | ← staff → staff |
|     | address_id       | Smallint                       | Small Integer. Unique identifier for address. It is used to identify addresses in the database, from the Stores, Customers and Staff. | address         |
|     | last_update      | Timestamp(6) without time zone | Date and time of the last update. Stores both date and time values, without timezone-aware (yyyy-mm-dd hh:mm:ss.sssss)                |                 |

### **APPENDIX**

- FK Foreign key
- PK Private key
- Links to →
- Linked from ←