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# DATA DICTIONARY FOR ROCKBUSTER

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## PROJECT INTRODUCTION:

Rockbuster Stealth, a former global movie rental company, is transitioning to an online video rental service. This project involves loading Rockbuster's data into a relational database and using SQL for data analysis, supporting the launch of the online service.

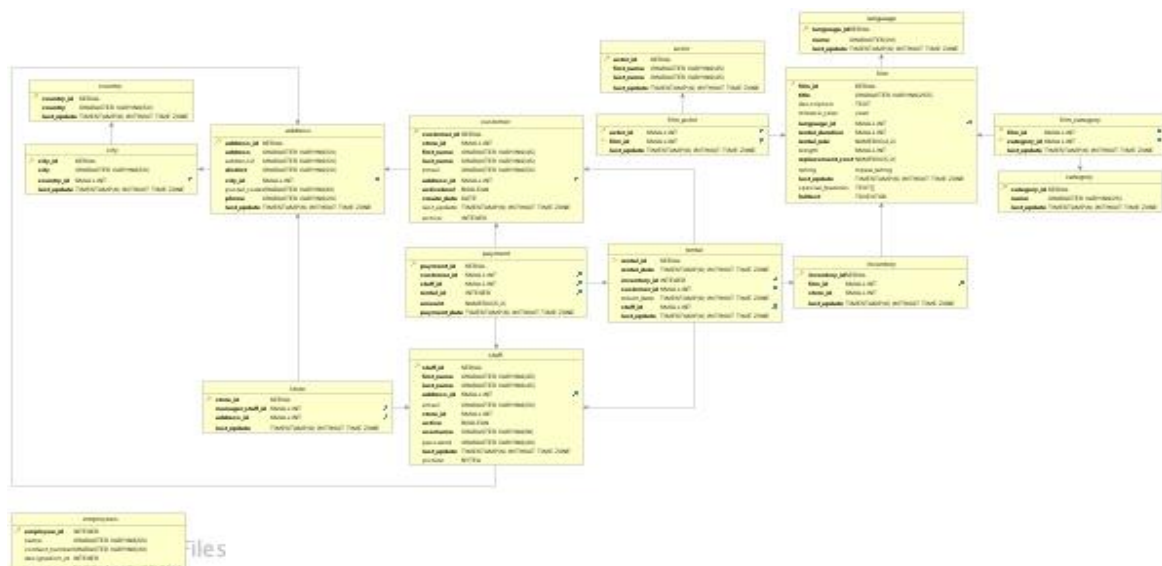
## PROJECT OBJECTIVES:

- Analyze movie contribution to revenue.
- Determine average rental durations.
- Identify customer locations and high-value segments.
- Analyze sales variation by region.

## SCOPE

This data dictionary covers database tables and data elements relevant to Rockbuster's business intelligence needs, aiding in strategic decisions for 2020.

## DATA SCHEME (ERD)



## DATA DICTIONARY

KEY WORDS:





primary key



foreign key

## TABLES

CUSTOMER (DIMENSION TABLE)

|   | Column      | Data Type                      | Description  |
|---|-------------|--------------------------------|--|
|  | customer_id | SERIAL                         | Unique identifier for each customer.                       |
|   | store_id    | SMALLINT                       | Identifier for the store where the customer is registered. |
|   | first_name  | CHARACTER VARYING(45)          | Customer's first name.                                     |
|   | last_name   | CHARACTER VARYING(45)          | Customer's last name.                                      |
|   | Email       | CHARACTER VARYING(50)          | Customer's email address.                                  |
|  | address_id  | SMALLINT                       | Reference to the customer's address.                       |
|   | activebool  | BOOLEAN                        | Indicator of whether the customer is active.               |
|   | create_date | DATE                           | Date when the customer profile was created.                |
|   | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the customer's information.                 |

|  |        |         |   |
|--|--------|---------|---|
|  | Active | INTEGER | An additional flag to indicate customer activity. |
|--|--------|---------|---|



#### Links to

| Table   | Join                                   |
|---------|--|
| Address | customer.address_id=address.address_id |

#### Links From

| Table   | Join                                     |
|---------|--|
| Payment | payment.customer_id=customer.customer_id |
| Rental  | rental.customer_id=customer.customer_id  |

#### FILM (DIMENSION TABLE)

|   | Column          | Data Type              | Description  |
|---|-----------------|------------------------|--|
|  | film_id         | SERIAL                 | Unique identifier for each film.                       |
|   | title           | CHARACTER VARYING(255) | The title of the film.                                 |
|   | description     | TEXT                   | A description of the film.                             |
|   | release_year    | YEAR                   | The year the film was released.                        |
|  | language_id     | SMALLINT               | Reference to the language of the film.                 |
|   | rental_duration | SMALLINT               | The duration in days for which the film can be rented. |
|   | rental_rate     | NUMERIC(4,2)           | The cost of renting the film.                          |
|   | length          | SMALLINT               | The running time of the film is in minutes.            |

|  |                  |                                |  |
|--|------------------|--------------------------------|--|
|  | replacement_cost | NUMERIC(5,2)                   | Cost to replace the film.              |
|  | rating           | mpaa_rating                    | The MPAA rating of the film.           |
|  | last_update      | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the film's information. |
|  | special_features | TEXT[]                         | Array of special features of the film. |
|  | fulltext         | TSVECTOR                       | Full text search vector for the film.  |


#### 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 |





#### ACTOR (DIMENSION TABLE)

|   | Column      | Data Type                      | Description                             |
|---|-------------|--------------------------------|---|
|  | actor_id    | SMALLINT                       | Unique identifier for each actor.       |
|   | 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 | Last update to the actor's information. |

#### Links From

| Table      | Join                                |
|------------|-------------------------------------|
| Film_Actor | film_actor. actor_id=actor.actor_id |

#### PAYMENT (FACT TABLE)





|   | Column       | Data Type                      | Description   |
|---|--------------|--------------------------------|---|
|    | payment_id   | SERIAL                         | Unique identifier for each payment.                   |
|    | customer_id  | SMALLINT                       | Reference to the customer making the payment.         |
|  | staff_id     | SMALLINT                       | Reference to the staff member processing the payment. |
|  | rental_id    | INTEGER                        | Reference to the rental transaction.                  |
|   | amount       | NUMERIC(5,2)                   | The amount of the payment.                            |
|   | payment_date | TIMESTAMP(6) WITHOUT TIME ZONE | The date and time when the payment was made.          |

#### Links to

| Table    | Join                                     |
|----------|--|
| Rental   | payment.rental_id=rental.rental_id       |
| Customer | payment.customer_id=customer.customer_id |
| Staff    | payment.staff_id=staff.staff_id          |

#### RENTAL (FACT TABLE)

|  | Column | Data Type | Description |
|--|--------|-----------|-------------|
|--|--------|-----------|-------------|

|   |              |                                |   |
|---|--------------|--------------------------------|---|
|  | rental_id    | SERIAL                         | Unique identifier for each rental transaction.          |
|   | rental_date  | TIMESTAMP(6) WITHOUT TIME ZONE | The date and time when the rental was initiated.        |
|  | inventory_id | INTEGER                        | Reference to the inventory item being rented.           |
|  | customer_id  | SMALLINT                       | Reference to the customer renting the item.             |
|   | return_date  | TIMESTAMP(6) WITHOUT TIME ZONE | The date and time when the item was returned.           |
|  | staff_id     | SMALLINT                       | Reference to the staff member who processed the rental. |
|   | last_update  | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the rental's information.                |



#### 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 |

#### INVENTORY (DIMENSION TABLE)

|   | Column       | Data Type | Description                                     |
|---|--------------|-----------|---|
|  | inventory_id | SERIAL    | Unique identifier for each inventory item.      |
|  | film_id      | SMALLINT  | Reference to the film related to the inventory. |

|  |             |                                |   |
|--|-------------|--------------------------------|---|
|  | store_id    | SMALLINT                       | Reference to the store where the inventory is held. |
|  | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the inventory's information.         |





#### Links to

| Table | Join                              |
|-------|-----------------------------------|
| Film  | inventory.film_id = film.film_id  |
| Store | inventory.store_id=store.store_id |

#### Links From

| Table  | Join                                       |
|--------|--|
| Rental | rental.inventory_id=inventory.inventory_id |

#### FILM\_ACTOR (DIMENSION TABLE)





|  | Column      | Data Type                      | Description   |
|--|-------------|--------------------------------|---|
| <br> | actor_id    | SMALLINT                       | Reference to the actor in the film.                 |
| <br> | film_id     | SMALLINT                       | Reference to the film the actor is associated with. |
|  | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the film_actor's information.        |

#### Links to

| Table | Join                               |
|-------|------------------------------------|
| Actor | film_actor.actor_id=actor.actor_id |
| Film  | film_actor.film_id=film.film_id    |




#### FILM\_CATEGORY (DIMENSION TABLE)

|  | Column      | Data Type                      | Description  |
|--|-------------|--------------------------------|--|
| <br> | film_id     | SMALLINT                       | Reference to the film in the category.                 |
| <br> | category_id | SMALLINT                       | Reference to the category the film is associated with. |
|  | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the film_category's information.        |

#### Links to

| Table    | Join   |
|----------|--|
| Film     | film_category.film_id= film.film_id            |
| Category | film_category.category_id=category.category_id |



#### CATEGORY (DIMENSION TABLE)

|   | Column      | Data Type                      | Description                                |
|---|-------------|--------------------------------|--|
|  | category_id | SERIAL                         | Unique identifier for each category.       |
|   | name        | CHARACTER VARYING(25)          | Name of the category.                      |
|   | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the category's information. |

#### Links From

| Table         | Join   |
|---------------|--|
| Film_category | film_category.category_id=category.category_id |

## STAFF (DIMENSION TABLE)

|   | Column      | Data Type                      | Description                                       |
|---|-------------|--------------------------------|---|
|  | staff_id    | SERIAL                         | Unique identifier for each staff member.          |
|   | first_name  | CHARACTER VARYING(45)          | Staff member's first name.                        |
|   | last_name   | CHARACTER VARYING(45)          | Staff member's last name.                         |
|  | address_id  | SMALLINT                       | Staff member's address.                           |
|   | email       | CHARACTER VARYING(50)          | Staff member's email address.                     |
|   | store_id    | SMALLINT                       | Reference to the store the staff member works at. |
|   | active      | BOOLEAN                        | Indicator of whether the staff member is active.  |
|   | username    | CHARACTER VARYING(16)          | Staff member's username.                          |
|   | password    | CHARACTER VARYING(40)          | Staff member's password.                          |
|   | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the staff's information.           |
|   | picture     | BYTEA                          | Binary data for the staff member's picture.       |




### Links to

| Table   | Join                                |
|---------|-------------------------------------|
| Address | staff.address_id=address.address_id |

### Links From

| Table   | Join                              |
|---------|-----------------------------------|
| Payment | payment.staff_id=staff.staff_id   |
| Rental  | rental.staff_id=staff.staff_id    |
| Store   | store.address_id=staff.address_id |


#### STORE (DIMENSION TABLE)


|   | Column           | Data Type                      | Description                             |
|---|------------------|--------------------------------|---|
|  | store_id         | SERIAL                         | Unique identifier for each store.       |
|  | manager_staff_id | SMALLINT                       | Identifier for the store's manager.     |
|  | address_id       | SMALLINT                       | Reference to the store's address.       |
|   | last_update      | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the store's information. |

#### Links to

| Table   | Join                                |
|---------|-------------------------------------|
| Staff   | store.address_id=staff.address_id   |
| Address | store.address_id=address.address_id |

#### ADDRESS (DIMENSION TABLE)

|   | Column     | Data Type             | Description                                |
|---|------------|-----------------------|--|
|  | address_id | SERIAL                | Unique identifier for each address.        |
|   | address    | CHARACTER VARYING(50) | The first line of the address.             |
|   | address2   | CHARACTER VARYING(50) | Additional address information (optional). |

|   |             |                                |  |
|---|-------------|--------------------------------|--|
|   | district    | CHARACTER VARYING(20)          | The district or area of the address.             |
|  | city_id     | SMALLINT                       | Reference to the city the address is located in. |
|   | postal_code | CHARACTER VARYING(10)          | The postal or ZIP code of the address.           |
|   | phone       | CHARACTER VARYING(20)          | The phone number associated with the address.    |
|   | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the address's information.        |



#### Links to

| Table | Join                         |
|-------|------------------------------|
| City  | address.city_id=city.city_id |

#### Links From

| Table   | Join                              |
|---------|-----------------------------------|
| Payment | payment.staff_id=staff.staff_id   |
| Rental  | rental.staff_id=staff.staff_id    |
| Store   | store.address_id=staff.address_id |

#### CITY (DIMENSION TABLE)

|   | Column      | Data Type                      | Description                                   |
|---|-------------|--------------------------------|---|
|  | city_id     | SERIAL                         | Unique identifier for each city.              |
|   | city        | CHARACTER VARYING(50)          | The name of the city.                         |
|  | country_id  | SMALLINT                       | Reference to the country the city belongs to. |
|   | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the city's information.        |


#### Links to

| Table   | Join                               |
|---------|------------------------------------|
| Country | city.country_id=country.country_id |

#### Links From

| Table   | Join                         |
|---------|------------------------------|
| Address | address.city_id=city.city_id |


#### COUNTRY (DIMENSION TABLE)

|  | Column      | Data Type                      | Description                               |
|--|-------------|--------------------------------|---|
|  | country_id  | SERIAL                         | Unique identifier for each country.       |
|  | country     | CHARACTER VARYING(50)          | The name of the country.                  |
|  | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the country's information. |

#### Links From

| Table | Join                               |
|-------|------------------------------------|
| City  | city.country_id=country.country_id |

#### LANGUAGE (DIMENSION TABLE)

|   | Column      | Data Type             | Description                          |
|---|-------------|-----------------------|--------------------------------------|
|  | language_id | SERIAL                | Unique identifier for each language. |
|   | name        | CHARACTER VARYING(20) | The name of the language.            |

|  |             |                                |  |
|--|-------------|--------------------------------|--|
|  | last_update | TIMESTAMP(6) WITHOUT TIME ZONE | Last update to the language's information. |
|--|-------------|--------------------------------|--|

**Links From**

| Table | Join                                  |
|-------|---------------------------------------|
| Film  | film.language_id=language.language_id |