Wehad Al-Shaee Databases & SQL for Analysts Exercise 3:10

# **Rockbuster Stealth**

**Data Dictionary** 

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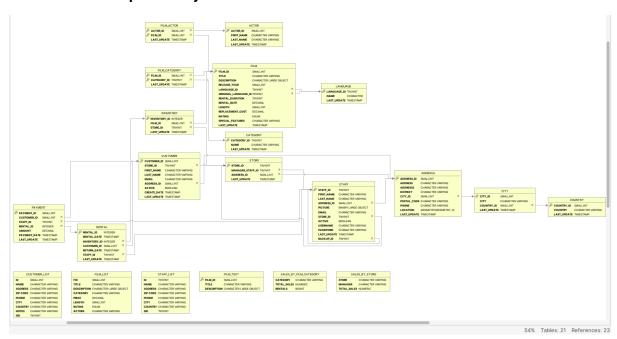
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This data dictionary offers a comprehensive overview of the Rockbuster Stealth Database, detailing its structure, key attributes, and relationships.

It documents the schema thoroughly, including fact and dimension tables, their fields, and associated primary and foreign key constraints. The goal is to provide a clear and accessible understanding of database design and data organization.

#### 2. Relationships and Keys



#### 3. Facts Tables

#### 3.1. Payment Table

| Key     | Columns      | Data type                       | Description            |
|---------|--------------|---------------------------------|------------------------|
| Primary | payment_id   | SERIAL                          | Unique ID for payments |
| Foreign | customer_id  | SMALLINT                        | Customer ID            |
| Foreign | staff_id     | SMALLINT                        | Staff ID               |
| Foreign | rental_id    | INTEGER                         | Unique ID for rental   |
|         | amount       | NUMERIC (5, 2)                  | Amount paid            |
|         | payment_date | TIMESTAMP (6) WITHOUT TIME ZONE | Payment date and time  |

#### 3.2. Rental Table

| Key     | Columns      | Data type                       | Description                      |
|---------|--------------|---------------------------------|----------------------------------|
| Primary | rental_id    | SERIAL                          | Unique ID for rentals            |
|         | rental_date  | TIMESTAMP (6) WITHOUT TIME ZONE | Rental date and time             |
| Foreign | inventory_id | INTEGER                         | Inventory ID                     |
| Foreign | customer_id  | SMALLINT                        | Customer ID                      |
|         |              |                                 | Date and time when the film was  |
|         | return_date  | TIMESTAMP (6) WITHOUT TIME ZONE | returned                         |
| Foreign | staff_id     | SMALLINT                        | Staff ID                         |
|         | last_update  | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |

### 4. Dimensions Table

### 4.1. Customer Table

| Key     | Columns     | Data type              | Description                           |
|---------|-------------|------------------------|---------------------------------------|
| Primary | customer_id | SERIAL                 | Customer ID                           |
|         | store_id    | SMALLINT               | Store ID                              |
|         | 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              |
| Foreign | address_id  | SMALLINT               | Customer's address                    |
|         | activebool  | BOOLEAN                | Active customer? T or F               |
|         | create_date | DATE                   | Date and time when cust. joined       |
|         |             |                        | Binary – not sure if it's a different |
|         | active      | INTEGER                | measure than that of the activebool   |

# 4.2. Staff Table

| Key     | Columns    | Data type              | Description               |
|---------|------------|------------------------|---------------------------|
| Primary | staff_id   | SERIAL                 | Staff member ID           |
|         | first_name | CHARACTER VARYING (45) | Staff member's first name |
|         | ast_name   | CHARACTER VARYING (45) | Staff member's last name  |
| Foreign | address_id | SMALLINT               | Staff member's address    |

| email       | CHARACTER VARYING (50)          | Staff member's email address     |
|-------------|---------------------------------|----------------------------------|
| store_id    | SMALLINT                        | Store ID                         |
| active      | BOOLEAN                         | Active staff member? T or F      |
| username    | CHARACTER VARYING (16)          | Username                         |
| password    | CHARACTER VARYING (40)          | Password                         |
| last_update | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |
| picture     | BYTEA                           | Photo of the staff member        |

### 4.3. Film\_actor Table

| Key     | Columns      | Data type                       | Description                      |
|---------|--------------|---------------------------------|----------------------------------|
| Primary | inventory_id | SERIAL                          | Inventory ID                     |
| Foreign | film_id      | SMALLINT                        | Film ID                          |
|         | store_id     | SMALLINT                        | Store ID                         |
|         | last_update  | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |

# 4.4. Film\_category Table

| Key     | Columns     | Data type                       | Description                      |
|---------|-------------|---------------------------------|----------------------------------|
| Foreign | film_id     | SMALLINT                        | Film ID                          |
| Foreign | category_id | SMALLINT                        | Category ID                      |
|         | ast_update  | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |

### 4.5. Store Table

| Key     | Columns              | Data type                       | Description                      |
|---------|----------------------|---------------------------------|----------------------------------|
| Primary | store_id             | SERIAL                          | Store ID                         |
| Foreign | manager_staff_<br>id |                                 | Staff Manager ID                 |
| Foreign | address_id           | SMALLINT                        | Address ID                       |
|         | last_update          | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |

#### 4.6. Actor Table

| Key     | Columns     | Data type                       | Description                      |
|---------|-------------|---------------------------------|----------------------------------|
| Primary | actor_id    | SERIAL                          | Actor ID                         |
|         | 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 | Time and date of the last update |

### 4.7. Film Table

| Key     | Columns         | Data type                       | Description                                |
|---------|-----------------|---------------------------------|--|
| Primary | film_id         | SERIAL                          | Film ID                                    |
|         | title           | CHARACTER VARYING (255)         | Film's name                                |
|         | description     | ТЕХТ                            | Film's description (storyline)             |
|         | release_year    | year                            | Film's year of release                     |
| Foreign | language_id     | SMALLINT                        | Film's language ID                         |
|         | rental_duration | SMALLINT                        | How long (days) a film can be rented       |
|         | rental_rate     | NUMERIC (4, 2)                  | Cost to rent a film                        |
|         | length          | SMALLINT                        | Film's length (minutes)                    |
|         | replacement_c   |                                 |  |
|         | ost             | NUMERIC (5, 2)                  | Cost of replacing a film                   |
|         | rating          | mpaa_rating                     | Film's rating                              |
|         | last_update     | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update           |
|         | special_featur  |                                 |  |
|         | es              | TEXT[]                          | Includes trailer, behind the scenes, etc.? |
|         |                 |                                 | Keywords that describe what the film       |
|         | fulltext        | TSVECTOR                        | features                                   |

# 4.8. Category Table

| Key     | Columns     | Data type      | Description                          |
|---------|-------------|----------------|--------------------------------------|
| Primary | language_id | SERIAL         | Language ID                          |
|         |             |                | Original language (English, Spanish, |
|         | name        | CHARACTER (20) | etc.)                                |

| last_updat | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |
|------------|---------------------------------|----------------------------------|
|            |                                 |                                  |

# 4.9. Address Table

| Key     | Columns     | Data type                       | Description                      |
|---------|-------------|---------------------------------|----------------------------------|
| Primary | category_id | SERIAL                          | Category ID                      |
|         | name        | CHARACTER VARYING (25)          | Action, comedy, sports, etc.     |
|         | last_update | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |
|         | address_id  | SERIAL                          | Address ID                       |
|         | address     | CHARACTER VARYING (50)          | Number + street name             |
|         | address2    | CHARACTER VARYING (50)          | If any (can be empty or Null)    |
|         | district    | CHARACTER VARYING (20)          | District, state, region          |
| Foreign | city_id     | SMALLINT                        | City ID                          |
|         | postal_code | CHARACTER VARYING (10)          | Zip code                         |
|         | phone       | CHARACTER VARYING (20)          | Phone number                     |
|         | last_update | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |

# 4.10. City Table

| Key     | Columns     | Data type                       | Description                      |
|---------|-------------|---------------------------------|----------------------------------|
| Primary | city_id     | SERIAL                          | City ID                          |
|         | city        | CHARACTER VARYING (50)          | City's name                      |
| Foreign | country_id  | SMALLINT                        | Country ID                       |
|         | last_update | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |

# 4.11. Country Table

| Key     | Columns     | Data type                       | Description                      |
|---------|-------------|---------------------------------|----------------------------------|
| Primary | country_id  | SERIAL                          | Country ID                       |
|         | country     | CHARACTER VARYING (50)          | Country's name                   |
|         | last_update | TIMESTAMP (6) WITHOUT TIME ZONE | Time and date of the last update |