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**Rockbuster Movies**

ERD &Data Dictionary

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# 

# Entity Relationship Diagram (ERD)

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Description automatically generated

# **FACT TABLES**

## **Payment**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | payment\_id | [PK] INTEGER | Unique payment identifier |
| Foreign | customer\_id | SMALLINT | Unique customer identifier |
| Foreign | staff\_id | SMALLINT | Unique staff identifier |
| Foreign | rental\_id | INTEGER | Unique rental identifier |
|  | amount | NUMERIC (5,2) | Payment amount |
|  | payment\_date | TIMESTAMP WITHOUT TIME ZONE | Time and date of payment |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| customer\_id | Customer | Foreign key reference to customer table |
| staff\_id | Staff | Foreign key reference to staff table |
| rental\_id | Rental | Foreign Key reference to rental table |

## **Rental**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | rental\_id | [PK] INTEGER | Unique rental identifier |
|  | rental\_date | TIMESTAMP WITHOUT TIME ZONE | Time and date of rental |
| Foreign | inventory\_id | INTEGER | Unique inventory identifier |
| Foreign | customer\_id | SMALLINT | Unique customer identifier |
|  | return\_date | TIMESTAMP WITHOUT TIME ZONE | Time and date of return |
| Foreign | staff\_id | SMALLINT | Unique staff identifier |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### 

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| inventory\_id | Inventory | Foreign key reference to inventory table |
| customer\_id | Customer | Foreign key reference to customer table |
| staff\_id | Staff | Foreign Key reference to staff table |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| rental\_id | Payment | Foreign key reference from payment table |

## 

# **DIMENSION TABLES**

## **Store**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | store\_id | SERIAL | Unique store identifier |
| Foreign | manager\_staff\_id | SMALLINT | Unique manager identifier |
| Foreign | address\_id | SMALLINT | Unique address identifier |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Staff\_id | Staff | Foreign key reference to staff table |
| Address\_id | Address | Foreign key reference to address table |

## **Film Actor**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary/Foreign | actor\_id | SMALLINT | Unique actor identifier |
| Primary/Foreign | film\_id | SMALLINT | Unique film identifier |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Actor\_id | Actor | P/F key reference to staff table |
| Film\_id | Film | P/F key reference to film table |

## **Inventory**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | inventory\_id | SERIAL | Unique inventory identifier |
| Foreign | film\_id | SMALLINT | Unique film identifier |
|  | store\_id | SMALLINT | Unique store identifier |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Film\_id | Film | Foreign Key reference to film table |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Inventory\_id | Rental | Primary key reference from rental table |

## **Film Category**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary/Foreign | film\_id | SMALLINT | Unique film identifier |
| Primary/Foreign | category\_id | SMALLINT | Unique category identifier |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Film\_id | Film | P/F key reference to film table |
| Category\_id | Category | P/F key reference to category table |

## **Customer**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | customer\_id | SERIAL | Unique customer identifier |
|  | store\_id | SMALLINT | Unique store identifier |
|  | first\_name | CHARACTER VARYING (45) | First name of customer |
|  | last\_name | CHARACTER VARYING (45) | Last name of customer |
|  | email | CHARACTER VARYING (50) | Email address of customer |
| Foreign | address\_id | SMALLINT | Unique address identifier |
|  | activebool | BOOLEAN | Customer active/inactive tatus |
|  | create\_date | DATE | Date of customer profile creation |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |
|  | active | INTEGER |  |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Address\_id | Address | Foreign key reference to address table |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Customer\_id | Payment | Foreign key reference from payment table |
| Customer\_id | Rental | Foreign key reference from rental table |

## **Staff**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | staff\_id | SERIAL | Unique Staff Identifier |
|  | first\_name | CHARACTER VARYING (45) | First name of employee |
|  | last\_name | CHARACTER VARYING (45) | Last name of employee |
| Foreign | address\_id | SMALLINT | Unique address identifier |
|  | email | CHARACTER VARYING (50) | Employee email address |
|  | store\_id | SMALLINT | Unique store identifier |
|  | active | BOOLEAN | Employee working status |
|  | username | CHARACTER VARYING (16) | Employee username |
|  | password | CHARACTER VARYING (40) | Employee password |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |
|  | picture | BYTEA | Photo of employee |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Address\_id | Address | Foreign key reference to address table |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Staff\_id | Payment | Foreign key reference from payment table |
| Staff\_id | Rental | Foreign key reference from rental table |
| Manager\_staff\_id | Store | Foreign Key reference from store table |

## **Actor**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | actor\_id | SERIAL | Unique actor identifier |
|  | first\_name | CHARACTER VARYING (45) | First name of actor |
|  | last\_name | CHARACTER VARYING (45) | Last name of actor |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links From

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Actor\_id | Film actor | Primary key reference from film actor table |

## **Film**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | film\_id | SERIAL | Unique film identifier |
|  | title | CHARACTER VARYING (255) | Title of film |
|  | description | TEXT | Description of film |
|  | release\_year | YEAR | Year the film was released |
| Foreign | language\_id | SMALLINT | Unique language identifier |
|  | rental\_duration | SMALLINT | Length of rental duration |
|  | rental\_rate | NUMERIC (4,2) | Cost of rental per rental duration |
|  | length | SMALLINT | Length of film in minutes |
|  | replacement\_cost | NUMERIC (5,2) | Cost to replace inventory |
|  | rating | MPAA\_RATING | Motion picture association rating |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |
|  | special\_features | TEXT | Deleted scenes/trailers/ ets |
|  | fulltext | TSVECTOR | Film index |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Language\_id | Language | Foreign key reference to language table |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Film\_id | Film\_actor | P/F key reference from film\_actor table |
| Film\_id | Inventory | Foreign key reference from inventory table |
| Film\_id | Film\_category | P/F key reference from film\_category table |

## **Category**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | category\_id | SERIAL | Unique category identifier |
|  | name | CHARACTER VARYING (25) | Genre name |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Category\_id | Film\_category | P/F key reference from film\_category table |

## **Address**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | address\_id | SERIAL | Unique address identifier |
|  | address | CHARACTER VARYING (50) | Address line 1 |
|  | address2 | CHARACTER VARYING (50) | Address line 2 |
|  | district | CHARACTER VARYING (20) | Location |
| Foreign | city\_id | SMALLINT | Unique city identifier |
|  | postal\_code | CHARACTER VARYING (10) | Postal code |
|  | phone | CHARACTER VARYING (20) | Phone number |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| City\_id | City | Foreign key reference to city table |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Address\_id | Store | Foreign key reference from store table |
| Address\_id | Customer | Foreign key reference from customer table |
| Address\_id | Staff | Foreign key reference from staff table |

## 

## **Language**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | language\_id | SERIAL | Unique language identifier |
|  | name | CHARACTER (20) | Name of language |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Language\_id | Film | Foreign key reference from film table |

## **City**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | city\_id | SERIAL | Unique city identifier |
|  | city | CHARACTER VARYING (50) | City |
| Foreign | country\_id | SMALLINT | Unique country identifier |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links to

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Country\_id | Country | Foreign key reference to country table |

### Links From

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| City\_id | Address | Primary key reference from address table |

## **Country**

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Column** | **Data Type** | **Description** |
| Primary | country\_id | SERIAL | Unique country identifier |
|  | country | CHARACTER VARYING (50) | Name of country |
|  | last\_update | TIMESTAMP WITHOUT TIME ZONE | Time and date of last update |

### Links from

|  |  |  |
| --- | --- | --- |
| **Column** | **Join Table** | **Description** |
| Country\_id | city | Foreign key reference from city table |