**RockBuster** Stealth

**Data Dictionary**

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# ERD Diagram of RockBuster stealth

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system.

Diagram

Description automatically generated

# **Fact Tables**

# Payment Table

This is a fact table which contains the payment information. The payment table gives information about the Revenue of the company sales, payment\_id, staff\_id, rental\_id which provides the payment, customer, and staff information.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Payment\_id | SERIAL | This is the **primary key** of the payment table. The payment ID is the incremental serial integer which uniquely identifies the individual record of the Payment table. |
| Customer\_id | SMALLINT | Unique Customer id. |
| Staff\_id | SMALLINT | Staff Identifier. |
| Rental\_id | INTEGER | Rental Identifier which is of the Integer data type. |
| Amount | NUMERIC | The payment amount in the form of Numeric (5,2) format. |
| Payment\_Date | TIMESTAMP (6) WITHOUT TIMEZONE | This is the date of the payment in the form of timestamp, but without Time zone. Sample date: "2007-02-15 22:25:46.996577" |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Staff | Payment.staff\_id = Staff.staff\_id | The Staff id is the Foreign Key in the Payment table. |
| Customer | Payment.customer\_id = customer.customer\_id | The customer id is the foreign key in the payment table linking to customer table. |
| Rental | Payment.rental\_id = rental.rental\_id | The rental\_id is the foreign key in the payment table linking to rental table. |

# Rental Table

This is the table of Rental Information of the Movie within the RockBuster database. The columns include the details of the Rental duration information, customer information, rental date and the staff information.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Rental\_id | SERIAL | Unique rental identifier in the incremental serial Integer format. **Primary Key**. |
| Rental\_date | TIMESTAMP (6) WITHOUT TIMEZONE | Date of the Rental. |
| Inventory\_id | INTEGER | Identifier of the Rental Inventory. |
| Customer\_id | SMALLINT | Customer Identifier of the Rental customer. |
| Return\_date | TIMESTAMP (6) WITHOUT TIMEZONE | Rental Return date |
| Staff\_id | SMALLINT | Staff identifier. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | Last Rental Update of the Movie Rental. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| inventory | Rental.inventory\_id = inventory.inventory\_id | Foreign key pointing to the Inventory table |
| Customer | rental.customer\_id = customer.customer\_id | The customer id is the foreign key in the rental table linking to customer table. |
| Staff | Rental.staff\_id = staff.staff\_id | Foreign key pointing to the Staff table |

**Linked from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| payment | Payment.rental\_id = rental.rental\_id | key Linking from the payment table. |

# Dimension Tables

# Customer

The table contains the information about Customers of Rockbuster Stealth. Columns include about the customer first name and last name, address identifier of the customer, customer being active or not, store information.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Customer\_id | SERIAL | Unique Customer Identifier. **Primary key** of the table. |
| Store\_id | SMALLINT | Unique Store Identifier. |
| First\_name | VARCHAR (45) | First name of the customer with the variable character data type with length of 45 chars maximum. |
| Last\_name | VARCHAR (45) | Last name of the customer with the variable character data type with length of 45 chars maximum. |
| email | VARCHAR (50) | Email of the customer. |
| Address\_id | SMALLINT | Address identifier for each record. |
| Activebool | BOOLEAN | Bool variable for checking if the customer is active. |
| Create\_date | DATE | Date when the customer record is created. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | Last update of the customer record. |
| Active | INTEGER | Value of the customer status being active or not in Integer format. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Address | Customer.address\_id = address.address\_id | Foreign key linking to the Address table. |

# Staff

The table contains information about Staff profile within the company. Columns include Staff’s first and last name, email, and address of the staff member, username, password and picture of the staff profile, Boolean information about staff being active or not.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Staff\_id | SERIAL | Unique Identifier of the Staff. Primary Key. |
| First\_name | VARCHAR (45) | The first name of the staff. |
| Last\_name | VARCHAR (45) | The last name of the staff. |
| Address\_id | SMALLINT | Address identifier of the staff member. |
| Email | VARCHAR (50) | The email of the staff. |
| Store\_id | SMALLINT | Identifier of the store |
| Active | BOOLEAN | Bool value for whether the staff is active or not. |
| Username | VARCHAR (16) | The username of the staff. |
| Password | VARCHAR (40) | The password of the staff. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the staff profile. |
| Picture | BYTEARRAY | Picture used in the Staff profile. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Address | staff.address\_id = address.address\_id | Foreign key linking to the Address table. |

**Links From**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| payment | Payment.staff\_id = staff.staff\_id | Key used to link the payment and the staff table. |
| store | Store.manager\_staff\_id = staff.staff\_id | Key used to link the store table. |

# Store

Provides information about the store and details of Staff Manager. The store also has an address identifier. The last update of the store information is also provided.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Store\_id | SERIAL | Unique Identifier of the Store. **Primary Key**. |
| Manager\_staff\_id | SMALLINT | Unique identifier of the Staff Manager. |
| Address\_id | SMALLINT | Store address identifier. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the store information. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Staff and Rental | Store.manager\_staff\_id = staff.staff\_id | Foreign key to find the Manager id of the store. |
| Address | Store.address\_id = address.address\_id | Foreign Key to the address table. |

# Inventory

Provides information of the inventory, film identifier which is used as a foreign key to the film table. The last update for Inventory table is also stored.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Inventory\_id | SERIAL | Unique identifier of the Inventory, **Primary key**. |
| Film\_id | SMALLINT | Unique identifier of the Film. |
| Store\_id | SMALLINT | Unique identifier of the Store. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the inventory information. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Film | Inventory.film\_id = film.film\_id | Foreign key to the film table. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Rental | Rental.Inventory\_id = inventory.inventory\_id | Key linking to the Rental table. |

# Film\_actor

Provides information about the movie actor. The film\_id forms part of the composite key. The last update of the actor information is also provided.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Actor\_id | SMALLINT | Unique Identifier of the Film actor, part of **composite key** |
| Film\_id | SMALLINT | Unique Identifier of the Film. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the film actor information. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Actor | Film\_actor.actor\_id = actor.actor\_id | Foreign key of the Film actor table. |
| Film | Film\_actor.film\_id = film.film\_id | Foreign key pointing to the Film table. |

# Actor

Table provides profile information about the Actor including first, last name and the last timestamp when the profile has been updated.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Actor\_id | SERIAL | Unique Identifier of the Actor. **Primary key** of the table. |
| First\_name | VARCHAR (45) | First name of the Actor. |
| Last\_name | VARCHAR (45) | Last name of the Actor. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the actor profile information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Film\_actor | Film\_actor.actor\_id = actor.actor\_id | Key linking from the film\_actor. These two tables are used to obtain the total profile information about movie actor. |

# Film

The table contains movie title, description, release year, language of the movie, rental duration, movie length in minutes, rental rate, replacement cost of the movie, rating of the movie, special features of the movie and the last update of the movie profile.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Film\_id | SERIAL | Unique Identifier of the Film. **Primary Key**. |
| Title | VARCHAR (255) | The Title of the Film. |
| description | TEXT | The summary of the movie. |
| Release\_year | YEAR | The 4 characters of the Year. |
| Language\_id | SMALLINT | The integer value of the Language. |
| Rental\_duration | SMALLINT | Duration of the rental. |
| Rental\_rate | NUMERIC | The rate of the rental with (4,2) numeric format. |
| Length | SMALLINT | Length of the movie in minutes. |
| Replacement\_cost | NUMERIC | Rental replacement cost of the film in numeric format of (5,2) |
| rating | MPAA\_rating | Ratings provided for the movie. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the movie information. |
| Special\_features | TEXT | Special features of the film like Trailer, Behind the Scenes |
| Fulltext | TSVECTOR | Vector of the film information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Film\_actor | Film\_actor.film\_id = film.film\_id | Key linking from the film\_actor. |
| Film\_category | Film\_category.film\_id = film.film\_id | Key linking from the film category table. |
| Inventory | Inventory.film\_id = film.film\_id | Linking Inventory and Film tables to check the inventory the movies within the database. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Language | Film.language\_id = language.language\_id | Foreign key of the Film table. |

# Category

Provides name of the movie genre and the last update information of the category.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Category\_id | SERIAL | Unique Identifier of the Category. **Primary key**. |
| Name | VARCHAR (25) | The category names of the Film. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the category information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Film\_category | Film\_category.category\_id = category.category\_id | key of the Film category table linking to obtain the movie genre. |

# Film\_category

The Table provides information about the movie category and the movie last update.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Film\_id | SMALLINT | Unique Identifier of the Film. **Primary Key**. |
| Category\_id | SMALLINT | Unique Identifier of the Category of the Film. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the record. |

**Links to**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| category | Film\_category.category\_id = category.category\_id | Foreign key of the Film\_category table. |

# 10)Language

Provides the language name of the movie and the last update of the language information.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Language\_id | SERIAL | Unique Identifier of the Language. Primary key |
| Name | VARCHAR (20) | Name of the Language. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of language information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Film | Film.language \_id = language.language\_id | key of the Film category table linking to obtain the movie language. |

# 11)Address

Provides the address information including the city district and postal code of the customer, last update of the address info.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Address\_id | SERIAL | Unique identifier of the Address. Primary key. |
| Address | VARCHAR (50) | Address field. |
| Address2 | VARCHAR (50) | Second field of the Address. |
| District | VARCHAR (20) | District name of the record. |
| City\_id | SMALLINT | Integer value of the city. |
| Postal\_code | VARCHAR (10) | Postal code of the address. |
| Phone | VARCHAR (20) | Phone number of the user profile. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the address information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| Store | store.address \_id = address.address\_id | key of the store table. |
| Staff | staff.address \_id = address.address\_id | key of the staff table. |
| customer | customer.address \_id = address.address\_id | Key linking from the customer table. |

# 12) City

Provides city name, country\_id and the last update of the city information.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| City\_id | SERIAL | Unique incremental integer values. Primary key. |
| City | VARCHAR (50) | Name of the City. |
| Country\_id | SMALLINT | Integer value of the country with which the city is associated. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the city information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| address | Address.city \_id = city.city\_id | key of the address table. |

# 13) Country

Provides the country name of the customer and the last update information of the country profile.

|  |  |  |
| --- | --- | --- |
| **Columns** | **Data Type** | **Description** |
| Country\_id | SERIAL | Unique Integer incremental value of the country. Primary Key. |
| Country | VARCHAR (50) | Name of the Country in full name form. |
| Last\_update | TIMESTAMP (6) WITHOUT TIMEZONE | The last update of the country information. |

**Links from**

|  |  |  |
| --- | --- | --- |
| **Table** | **Join** | **Description** |
| city | city.country \_id = country.country\_id | key of the city table. |