



This is a snowflake schema as there are dimensional tables have sub-dimensions just like table customer which is a dimensional table and its fact table is rental and payment. Its sub-dimensions are address, city and country. There are two fact tables in the ERD which is rental and payment which are connected to their dimensional tables and those dimensional tables are connected to their sub-dimensional tables.

## Fact Tables

### Rental:

Column	Data Type	Description
Rental_id	Serial	Unique identifier for each rental transaction
Rental_date	Timestamp(6)without timezone	Data of rental occurred
Inventory_id	Integer	Unique identifier for inventory
Customer_id	Smallint	Unique identifier for customer
Return_date	Timestamp(6)without timezone	Date of item be returned
Staff_id	Smallint	Unique identifier for staff
Last_update	Timestamp(6)without timezone	Date and time of record last updated

### Payment:

Column	Data Type	Description
Payment_id	Serial	Unique identifier of a payment
Customer_id	Smallint	Unique identifier of a customer
Staff_id	Smallint	Unique identifier of a staff member
Rental_id	Integer	Unique identifier of a rental
Amount	Numeric(5,2)	Price of the rental
Payment_date	Timestamp(6)without timezone	Date of the payment

## Dimension Tables

### Customer:

Column	Data Type	Description
Customer_id	Serial	Primary Key for customer table
Store_id	Smallint	Foreign key of a store table
First_name	Character Varying(45)	First name of the customer
Last_name	Character Varying(45)	Last name of the customer
Email	Character Varying(50)	Email of the customer
Adress_id	Smallint	Adress of the customer
Activebool	Boolyan	Active or not
Create_date	Date	Date of customer being created
Last_update	Timestamp(6)without timezone	Date and time of record last updated
Active	Integer	Active or not

### Staff:

Column	Data Type	Description
Staff_id	Serial	Primary Key for staff table
Store_id	Smallint	Foreign key of a store table
First_name	Character Varying(45)	First name of the staff
Last_name	Character Varying(45)	Last name of the staff
Email	Character Varying(50)	Email of the staff
Adress_id	Smallint	Foreign key of address table
Active	Boolyan	Active or not
User_name	Character Varying(16)	User_name of the staff
Password	Character Varying(40)	Password of the staff
Last_update	Timestamp(6)without timezone	Date and time of record last updated
Picture	Bytea	Photo of the staff

**Store:**

Column	Data Type	Description
Store_id	Serial	Primary Key for store table
Manager_staff_id	Smallint	Unique identifier of the store manager
Address_id	Smallint	Foreign key of Address table
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Address:**

Column	Data Type	Description
Address_id	Serial	Primary Key for Address table
Address	Character Varying(50)	Address details
Address2	Character Varying(50)	Extra address details
District	Character Varying(20)	Name of the district
City_id	Smallint	Foreign Key for city table
Postal_code	Character Varying(10)	Postal code details
Phone	Character Varying(20)	Postal code details
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**City:**

Column	Data Type	Description
City_id	Serial	Primary Key for city table
City	Character Varying(50)	Name of the city
Country_id	Smallint	Foreign Key for country table
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Country:**

Column	Data Type	Description
Country_id	Serial	Primary Key for country table
Country	Character Varying(50)	Name of the country
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Film\_Category:**

Column	Data Type	Description
Film_id	Smallint	Primary Key for film_category table
Category_id	Smallint	Foreign Key for category table
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Category:**

Column	Data Type	Description
Category_id	Serial	Primary Key for category table
Name	Character Varying (25)	Name of the category
Last_update	Character Varying (25)	Date and time of record last updated

**Inventory:**

Column	Data Type	Description
Inventory_id	Serial	Primary Key for inventory table
Film_id	Smallint	Foreign Key for film table
Store_id	Smallint	Foreign Key for store table
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Film:**

Column	Data Type	Description
Film_id	Serial	Primary Key for film table
Title	Character Varying(255)	Title of the movie
Description	TEXT	Description of the movie
Release_year	Year	Year that the movie came out
Language_id	Smallint	Foreign Key for language table
Rental_duration	Smallint	How long the movie has been rented
Rental_rate	Numeric(4,2)	Data of rental occurred
Length	Smallint	Duration of the movie
Replacement_cost	Numeric(5,2)	Costs to replace the rental movie
Rating	Mpaa_rating	Which age groups can watch the movie
Last_update	Timestamp(6)without timezone	Date and time of record last updated
Special_features	Text[]	Special features of the movie
Fulltext	TSVECTOR	Text of the movie

**Language:**

Column	Data Type	Description
Language_id	Serial	Primary Key for language table
Name	Character (20)	Name of the language
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Film\_Actor:**

Column	Data Type	Description
Actor_id	Smallint	Primary Key for film_actor table
Film_id	Smallint	Foreign Key for film table
Last_update	Timestamp(6)without timezone	Date and time of record last updated

**Actor:**

Column	Data Type	Description
Actor_id	Serial	Primary Key for actor table
First_name	Character Varying(45)	First name of the actor
Last_name	Character Varying(45)	Last name of the actor
Last_update	Timestamp(6)without timezone	Date and time of record last updated

- **Which actors brought Rockbuster the most revenue?**

Rental – Inventory – Film – Film\_Actor - Actor

- **What language are the majority of movies in the collection?**

Rental – Inventory – Film - Language

