

OVERVIEW

This dataset comprises a comprehensive compilation of information obtained from a movie rental service, encompassing a diverse array of tables detailing actors, films, customers, rental transactions, and more. It provides invaluable insights into the operations and dynamics of a rental business, facilitating thorough analysis and informed decision-making.

Exploratory Data Analysis (EDA):

The Exploratory Data Analysis (EDA) conducted on this dataset unveils intricate patterns, trends, and relationships inherent within the data. Through systematic examination and visualization, we aim to gain deeper insights into customer behavior, inventory management, revenue generation, and other key aspects crucial for optimizing business operations.

DATA DICTIONARY:

The data dictionary serves as a comprehensive guide, delineating the structure and attributes of each table within the dataset. It provides detailed descriptions of primary keys, foreign keys, and other pertinent information essential for understanding the dataset's schema and facilitating seamless data exploration and analysis.

The dataset represents a thorough amalgamation of information sourced from a movie rental service, covering a broad spectrum of tables containing details on actors, films, customers, rental transactions, and more. In total, there are 16 distinct tables within this dataset, each meticulously curated to offer insights and facilitate decision-making processes within the movie rental domain.

TABLE EXPLANATIONS:

Actor Table: The Actor table contains detailed information about actors associated with the movie rental service.

- actor_id (Primary Key): A unique identifier assigned to each actor.
- first_name: The first name of the actor.
- last_name: The last name of the actor.

Address Table: The Address table stores address details for customers, staff, and stores.

- address_id (Primary Key): A unique identifier assigned to each address.
- address: The street address.
- address2: Supplementary address information, if available.
- district: The district or area.
- city_id (Foreign Key): A reference to the City table, indicating the city of the address.
- postal_code: The postal code.
- phone: The contact number associated with the address.

Category Table: The Category table lists various categories that can be assigned to films.

- category_id (Primary Key): A unique identifier assigned to each category.
- name: The name of the category.

City Table: The City table contains a comprehensive list of cities.

- city_id (Primary Key): A unique identifier assigned to each city.
- city: The name of the city.
- country_id (Foreign Key): A reference to the Country table, indicating the country or region where the city is located.

Country Table: The Country table lists all countries or regions.

- country_id (Primary Key): A unique identifier assigned to each country.
- country: The name of the country or region.

Customer Table: The Customer table contains information about all customers registered with the movie rental service.

- customer_id (Primary Key): A unique identifier assigned to each customer.
- store_id (Foreign Key): A reference to the Store table, indicating the store where the customer is registered.
- first_name: The first name of the customer.
- last_name: The last name of the customer.
- email: The email address of the customer.
- address_id (Foreign Key): A reference to the Address table, specifying the customer's address.
- active: A flag indicating whether the customer's account is active.
- create_date: The date when the customer's account was created.

Film Table: The Film table comprises information about all films available for rental.

- film_id (Primary Key): A unique identifier assigned to each film.
- title: The title of the film.
- description: A brief description of the film.
- release_year: The year when the film was released.
- language_id (Foreign Key): A reference to the Language table, specifying the film's language.
- original_language_id (Foreign Key): A reference to the Language table, representing the original language of the film.
- rental_duration: The rental duration of the film.
- rental_rate: The rental rate for the film.
- replacement_cost: The cost to replace the film.
- rating: The content rating of the film.

Film Text Table: The Film Text table contains textual data related to films, synchronized with the Film table.

- film_id (Foreign Key): A reference to the Film table, denoting the film to which the text belongs.
- film_title: The title of the film.
- description: A brief description of the film.

Film Actor Table: The Film Actor table facilitates many-to-many relationships between films and actors.

- actor_id (Foreign Key): A reference to the Actor table, representing the actor associated with the film.
- film_id (Foreign Key): A reference to the Film table, indicating the film in which the actor appeared.

Film Category Table: The Film Category table supports many-to-many relationships between films and categories.

- film_id (Foreign Key): A reference to the Film table, specifying the film associated with a category.
- category_id (Foreign Key): A reference to the Category table, indicating the category assigned to the film.

Inventory Table: The Inventory table records details of film copies available in each store.

- inventory_id (Primary Key): A unique identifier assigned to each inventory item.
- film_id (Foreign Key): A reference to the Film table, representing the film in the inventory.
- store_id (Foreign Key): A reference to the Store table, indicating the store where the inventory item is located.
- last_update: The date and time when the inventory item was last updated.

Language Table: The Language table lists all possible languages used in films.

- language_id (Primary Key): A unique identifier assigned to each language.
- name: The name of the language.

Payment Table: The Payment table records all payment transactions made by customers.

- payment_id (Primary Key): A unique identifier assigned to each payment transaction.
- customer_id (Foreign Key): A reference to the Customer table, specifying the customer who made the payment.
- staff_id (Foreign Key): A reference to the Staff table, indicating the staff member who processed the payment.
- rental_id (Foreign Key): A reference to the Rental table, representing the rental associated with the payment.
- amount: The payment amount.
- payment_date: The date and time when the payment was made.

Rental Table: The Rental table contains records of all rental transactions.

- rental_id (Primary Key): A unique identifier assigned to each rental transaction.
- rental_date: The date and time when the rental was initiated.
- inventory_id (Foreign Key): A reference to the Inventory table, indicating the inventory item rented.
- customer_id (Foreign Key): A reference to the Customer table, specifying the customer who rented the film.
- return_date: The date and time when the rental was returned.
- staff_id (Foreign Key): A reference to the Staff table, representing the staff member who processed the rental.

Staff Table: The Staff table contains information about all staff members.

- staff_id (Primary Key): A unique identifier assigned to each staff member.
- first_name: The first name of the staff member.
- last_name: The last name of the staff member.
- address_id (Foreign Key): A reference to the Address table, specifying the staff member's address.
- email: The email address of the staff member.
- store_id (Foreign Key): A reference to the Store table, indicating the store where the staff member works.
- active: A flag indicating whether the staff member is currently active.

- username: The staff member's username for system login.
- password: The staff member's password for system login.
- last_update: The date and time of the staff member's last update.

Store Table: The Store table lists all stores within the system.

- store_id (Primary Key): A unique identifier assigned to each store.
- manager_staff_id (Foreign Key): A reference to the Staff table, indicating the staff member who manages the store.
- address_id (Foreign Key): A reference to the Address table, specifying the address of the store.