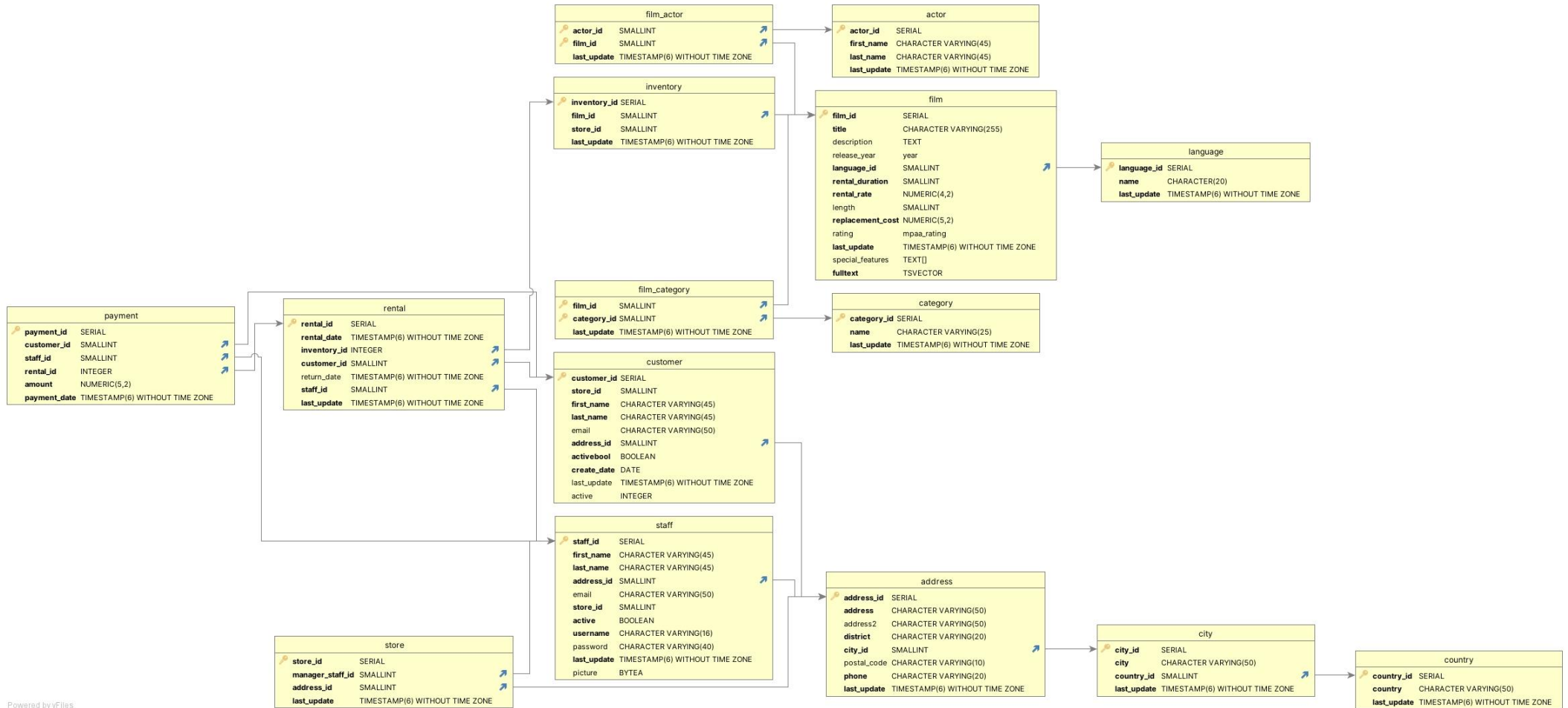


Data Immersion 3.2

1.



Powered by yFiles

1. It is a snowflake schema, the fact table and payment are encircled by many dimensions.

2.

Fact Tables

Name of the Table: Rental

Columns	Data Type	Description
rental_id	SERIAL	Unique identifier for each rental transaction
rental_date	TIMESTAMP WITHOUT TIME ZONE	The date and time when the item was rented
inventory_id	INTEGER	Links to the specific inventory item rented
customer_id	SMALLINT	Links to the customer who rented the item
return_date	TIMESTAMP WITHOUT TIME ZONE	The date and time when the item was returned
staff_id	SMALLINT	Links to the staff member who managed the rental
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp for the last update to the record

Name of the Table: Payment

Columns	Data Type	Description
payment_id	SERIAL	Unique identifier for each payment transaction
customer_id	SMALLINT	Links to the customer who made the payment
staff_id	SMALLINT	Links to the staff member who processed payment
rental_id	INTEGER	Links to the associated rental transaction
Amount	NUMERIC(5,2)	The monetary amount of the payment
payment_date	TIMESTAMP WITHOUT TIME ZONE	The date and time when the payment was made

Dimension Tables

Name of the Table: Customer

Columns	Data Type	Description
customer_id	SERIAL	Unique identifier for each customer
store_id	SMALLINT	Links to the store where the customer is registered
first_name	VARCHAR(45)	The first name of the customer
last_name	VARCHAR(45)	The last name of the customer
email	VARCHAR(50)	The email address of the customer
address_id	SMALLINT	Links to the customer's address
activebool	BOOLEAN	Status of whether the customer is active or not
create_date	DATE	The date the customer was added to the database
last_update	TIMESTAMP WITHOUT TIME ZONE	The date and time the record was last updated

Name of the Table: Store

Columns	Data Type	Description
store_id	SERIAL	Unique identifier for the store location
manager_staff_id	SMALLINT	ID of the staff member managing the store
address_id	SMALLINT	ID linking to the store's physical address
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

Name of the Table: Staff

Columns	Data Type	Description
staff_id	SERIAL	Unique identifier for each staff member
first_name	VARCHAR(45)	First name of the staff member
last_name	VARCHAR(45)	Last name of the staff member
address_id	SMALLINT	Links to the staff member's address
email	VARCHAR(50)	Email address of the staff member
store_id	SMALLINT	ID of the store where the staff member works

Columns	Data Type	Description
active	BOOLEAN	Status of whether the staff member is currently active
username	VARCHAR(16)	Username for the staff member's login
password	VARCHAR(40)	Password for the staff member's login
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record
picture	BYTEA	Binary data for the staff member's picture

Name of the Table: Address

Columns	Data Type	Description
address_id	SERIAL	Unique identifier for each physical address
address	VARCHAR(50)	The first line of the address
address2	VARCHAR(50)	The second line of the address (if any)
district	VARCHAR(20)	The district or area of the address
city_id	SMALLINT	Links to the ID of the city
postal_code	VARCHAR(10)	

Name of the Table: City

Columns	Data Type	Description
city_id	SERIAL	Unique identifier for each city
city	VARCHAR(50)	Name of the city
country_id	SMALLINT	The ID of the country related to the city
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

Name of the Table: Country

Columns	Data Type	Description
country_id	SERIAL	Unique identifier for each country
country	VARCHAR(50)	Name of the country
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

Name of the Table: Film_category

Columns	Data Type	Description
film_id	SMALLINT	ID of the film
category_id	SMALLINT	ID of the category related to the film
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

Name of the Table: Category

Columns	Data Type	Description
category_id	SERIAL	Unique identifier for each category
name	VARCHAR(25)	Name of the category
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

Name of the Table: Inventory

Columns	Data Type	Description
inventory_id	SERIAL	Unique identifier for each inventory item
film_id	SMALLINT	ID of the film which the inventory item is a copy of
store_id	SMALLINT	ID of the store where the inventory item is held
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

Name of the Table: Film

Columns	Data Type	Description
film_id	SERIAL	Unique identifier for each film
title	VARCHAR(255)	Title of the film
description	TEXT	Description or synopsis of the film
release_year	YEAR	Year the film was released
language_id	SMALLINT	ID of the language of the film
rental_duration	SMALLINT	Duration in days for which the film is rented
rental_rate	NUMERIC(4,2)	Cost per rental period
length	SMALLINT	Running time of the film in minutes
replacement_cost	NUMERIC(5,2)	Cost to replace the film
rating	MPAA RATING (e.g., G, PG)	MPAA rating for the film
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record
special_features	TEXT[]	Array of special features the film has

fulltext	TSVECTOR	Fulltext index for searching film titles/descriptions
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Name of the Table: Language

Columns	Data Type	Description
language_id	SERIAL	Unique identifier for each language
name	CHAR(20)	Name of the language
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the

Name of the Table: Film_actor

Columns	Data Type	Description
actor_id	SMALLINT	ID for the actor featured in the film
film_id	SMALLINT	ID for the film in which the actor is featured
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp for the last update to the record

Name of the Table: Actor

Columns	Data Type	Description
actor_id	SERIAL	Unique identifier for each actor
first_name	VARCHAR(45)	First name of the actor
last_name	VARCHAR(45)	Last name of the actor
last_update	TIMESTAMP WITHOUT TIME ZONE	Timestamp of the last update to the record

4.

Which actors brought Rockbuster the most revenue?

Rental – Payment – Inventory – Film_actor – Actor

What language are the majority of movies in the collection?

Inventory – Film - Language