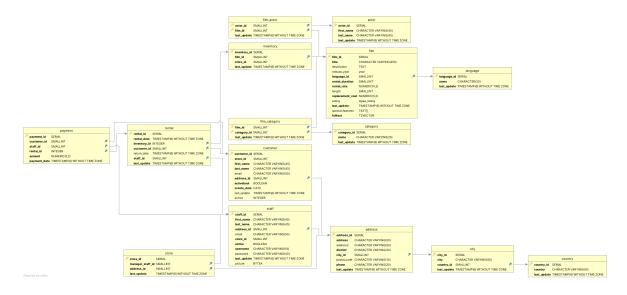
# Exercise 3.2 Sanya Mohsini



- Snowflake or star schema
  - The ERD is a snowflake schema. While the fact tables are in the center surrounded by dimensions tables, they are surrounded by sub-dimensions tables.
- List all the fact tables and all the dimensions tables in the schema

# Fact Tables

## **Payment**

Column	Data Type	Description
Payment_id	Serial	Unique payment identifier
Customer_id	Smallint	Unique customer identifier
Staff_id	Smallint	Unique staff identifier
Rental_id	Integer	Unique rental identifier
Amount	Numeric(5,2)	Amount of payment received
Payment_date	Timestamp (6) without time	Time and date of payment
	zone	

#### Rental

Column	Data Type	Description
Rental_id	Serial	Unique rental identifier
Rental_date	Timestamp (6) without time	Time and date of rental
	zone	
Inventory_id	Integer	Unique inventory identifier
customer_id	smallint	Unique customer identifier

Return_date	Timestamp (6) without time	Time and date of return
	zone	
Staff_id	Smallint	Unique staff identifier
Last_update	Timestamp (6) without time	Time and date of last update
	zone	

# **Dimenions Tables**

## Customer

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 of customer
Address_id	Smallint	Unique address identifier
Activebool	Boolean	Status of whether a customer
		is active
Create_date	Date	Date of customer profile
		creation
Last_update	Timestamp (6) without time	Time and date of last update
	zone	
Active	Integer	Active status represented by
		1 or 0

## Store

010.0		
Store_id	Serial	Unique store identifier
Manager_Staff_id	Smallint	Unique manager identifier
Address_id	Smallint	Unique address identifier
Last-update	Timestamp (6) without time	Time and date of last update
	zone	

## Staff

Staff_id	Serial	Unique staff identifier
First_name	Character varying (45)	First name of staff
Last_name	Character varying (45)	Last name of staff
Email	Character varying (50)	Email of staff
Store_id	Smallint	Unique store identifier
Activebool	Boolean	Status of whether a staff
		member is active
Username	Character varying (16)	Staff's username
Password	Character varying (40)	Staff's password
Last_update	Timestamp (6) without time	Time and date of last staff
	zone	profile update

Picture	Bytea	Picture of staff member
Address		
Address_id	Serial	Unique address identifier
Address	Character varying (50)	First line of address
Address2	Character varying (50)	Second line of address
District	Character varying (20)	District of address
City_id	Smallint	Unique city identifier
Postal_code	Character varying (10)	Postal code of address
Phone	Character varying (10)	Phone number of address
Last_update	Timestamp (6) without time	Last update of address
	zone	
City	Carriel	I I I I I I I I I I I I I I I I I I I
City_id	Serial	Unique city identifier
City	Character varying (50)	Name of city
Country_id	Smallint	Unique country identifier
Last_update	Timestamp (6) without time	Last update of city
	zone	
Country		
Country_id	Serial	Unique country identifier
Country	Character varying (50)	Name of country
Last_update	Timestamp (6) without time	Last update of country
	zone	
Film	1	
Film_id	Serial	Unique film identifier
Title	Character varying (255)	Title of film
Description	Text	Description of film
Release_year	Year	Film release year
Language_id	Smallint	Unique language identifier
Rental_Duration	Smallint	Duration of rental
Rental_Rate	Numeric(4,2)	Rate of rental

Smallint

zone

Text[]

Tsvector

Numeric(5,2)

Mpaa\_rating

Timestamp (6) without time

Length

Rating

Fulltextt

Last\_update

Special\_features

Replacement\_cost

Length of film

Rating of film

Cost to replace film

Last update of film profile

Full text index. Information about significant words.

Special features of film

Category

Category_id	Serial	Unique category identifier
Name	Character varying (25)	Name of category
Last_update	Timestamp (6) without time	Last update of category
	zone	

Film\_Category

Film_id	Smallint	Unique film identifier
Category_id	Smallint	Unique category identifier
Last_update	Timestamp (6) without time	Last update of film
	zone	

Language

Language_id	Serial	Unique language identifier
Name	Character (2)	Name of language
Last_update	Timestamp (6) without time	Last update of language
	zone	

# Actor

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 (6) without time	Last update of actor profile
	zone	

Film\_Actor

Actor_id	Smallint	Unique actor identifier
Film_id	Smallint	Unique film identifier
Last_update	Timestamp (6) without time	Last update of film actor
	zone	

Inventory

Inventory_id	Serial	Unique inventory identifier
Film_id	Smallint	Unique film identifier
Store_id	Smallint	Unique store identifier

Last_update	Timestamp (6) without time	Last update of inventory
	zone	

## Tables needed for:

- Which actor brought Rockbuster the most revenue?
  - o Payment
  - $\circ \quad \textbf{Rental}$
  - Inventory
  - o Film
  - o Film Actor
  - o Actor
- What language are the majority of movies in the collection?
  - Inventory
  - o Film
  - o Language