Information System - Lab work 8

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Database

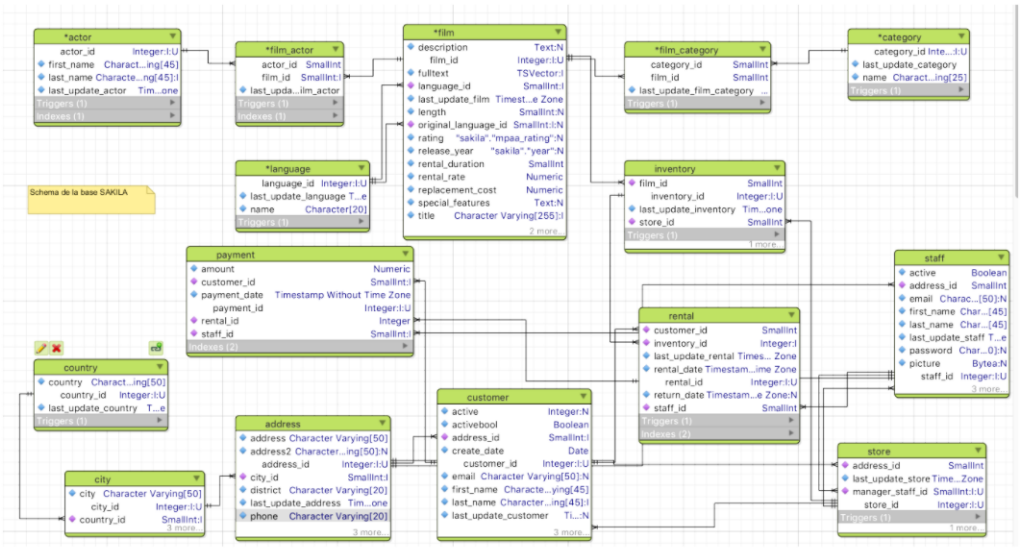

Figure 1: Visual example of Sakila database schema

SQL queries

1. List names of all the languages in the database (sorted alphabetically)?

   ```
   SELECT * FROM language
   ORDER BY name ASC;
   ```

2. List full names of actors with "GER" in their last name, ordered by their first name.

```
SELECT CONCAT(first_name," ",last_name) AS full_name
FROM actor
WHERE last_name LIKE "%GER%"
ORDER BY first_name ASC;
```

3. Find all the addresses where postal code starts with "57", and return addresses sorted.

```
SELECT *
FROM address
WHERE postal_code LIKE "57%"
ORDER BY address;
```

4. How many films involve a "DRAWRF" in their titles?

```
SELECT COUNT(*)
FROM film
WHERE title LIKE "%DRAWF%";
```

5. Find full names of actors who played in a film involving 'WAR' in title and longer than 2.5 hours, along with the title, run length and release year of the movie, sorted by the actors' last names.

```
SELECT (first_name, " ", last_name ) AS full_name,
title, release_year, length
FROM actor
JOIN film_actor ON actor.actor_id=film_actor.actor_id
WHERE title LIKE '%WAR%' AND length > 150
ORDER BY last_name;
```

6. Find all the film categories in which there are between 55 and 65 films. Return the names of these categories and the number of films per category, sorted by the number of films descending.

```
SELECT VIEW R6 AS
SELECT film_category.category_id, category.name,
COUNT(film_category.category_id) as countfilm
FROM film_category
JOIN category
ON film_category.category_id = category.category_id
GROUP BY category_id;

SELECT name, countfilm
FROM R6
WHERE countfilm > 55 AND countfilm < 65
ORDER BY countfilm DESC;
```

7. In how many film categories is the average difference between the film replacement cost and the rental rate larger than 17?

```
SELECT COUNT(*)
FROM (SELECT category_id
FROM film
JOIN film_category
ON film.film_id = film_category.film_id
GROUP BY film_category.category_id
HAVING ABS(AVG(replacement_cost)) - AVG(rental_rate)>17 ) AS R7;
```

8. Find the address district(s) name(s) such that the minimal postal code in the district(s) is maximal over all the districts. Make sure your query ignores empty postal codes and district names.

```
SELECT R7.district , MAX(postcode)
FROM (SELECT district , MIN(postal_code) AS postcode
FROM address
WHERE postal_code IS NOT NULL AND district IS NOT NULL
GROUP BY district
ORDER BY MIN(postal_code) DESC) AS R7;
```

9. Find the names (first and last) of all the actors and customers whose first name is the same as the first name of the actor with ID 101 (exclude the actor with ID 101).

```
SELECT first_name , last_name
FROM customer
WHERE customer.first_name = (SELECT first_name
FROM actor WHERE actor_id = 101)
UNION
SELECT first_name , last_name FROM actor
WHERE first_name = (SELECT first_name
FROM actor WHERE actor_id =101)
AND actor_id <> 101 ;
```