assignment

A list of practical assignments you can perform using the Sakila sample database (if not having sakila database import it ) in MySQL Workbench:

1. Basic Queries:
   * Retrieve all customer names and their corresponding emails.

select first\_name , email from customer;

* List all films with their titles and descriptions.

select title , description from film;

* Display all rental transactions with rental date, return date, and customer information.

select rental\_date,return\_date,customer\_id from rental;

1. Filtering and Sorting:
   * Show the films released in a specific year.

select title from film where release\_year = '2006';

* + Display the top 10 films by rental rate.

select title,rental\_rate from film order by rental\_rate desc limit 10;

* + List all films in alphabetical order.

select \* from film order by title asc;

1. Joins:
   * Retrieve customer names along with the films they have rented.

SELECT

customer.first\_name, customer.last\_name, film.title , customer.customer\_id

FROM

customer

INNER JOIN

rental ON customer.customer\_id = rental.customer\_id

INNER JOIN

inventory ON rental.inventory\_id = inventory.inventory\_id

INNER JOIN

film ON inventory.film\_id = film.film\_id;

* + Show rental details along with customer information and film details.
  + Display inventory information along with film details.

SELECT

film.film\_id, title, COUNT(inventory.film\_id) AS count

FROM

inventory

INNER JOIN

film ON inventory.film\_id = film.film\_id

GROUP BY inventory.film\_id

ORDER BY count ASC;

1. Aggregation:
   * Count the number of films in each category.

select count(\*) from film\_category;

* + Calculate the total revenue generated by each store
  + Find the average rental duration for each film.

1. Subqueries:
   * List customers who have rented more than 5 films.
   * Display films with a rental rate higher than the average rental rate.
   * Show rental details for the film with the most rentals.
2. Updating Data:
   * Update the rental rate of a specific film.
   * Update customer addresses.
   * Mark a rental as returned.
3. Inserting Data:
   * Add a new customer to the database.
   * Insert a new film into the inventory.
   * Add a new rental transaction.
4. Deleting Data:
   * Remove inactive customers (customers who haven't rented any films).
   * Delete a specific film from the inventory.
   * Remove rental records older than a certain date.
5. Views:
   * Create a view that shows the top 10 films by revenue.
   * Create a view that displays the number of rentals per customer.
   * Create a view that summarizes the rental transactions by month.
6. Stored Procedures:
   * Create a stored procedure to update customer information.
   * Create a stored procedure to calculate late fees for rentals.
   * Create a stored procedure to generate rental reports.