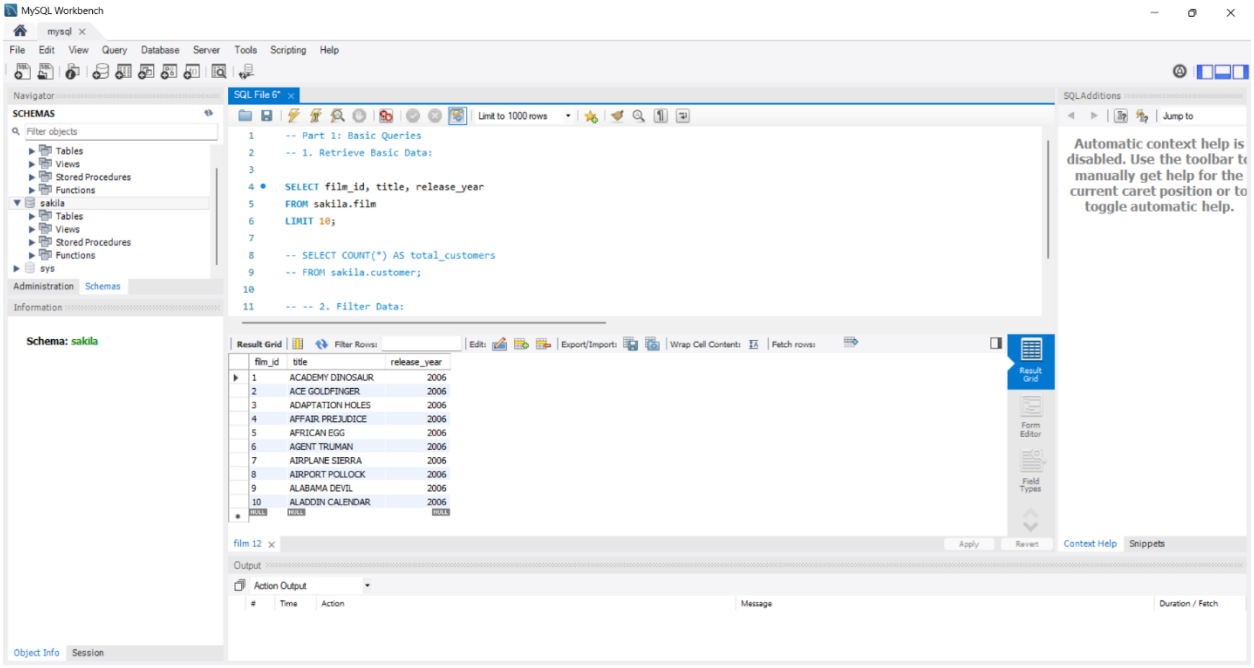
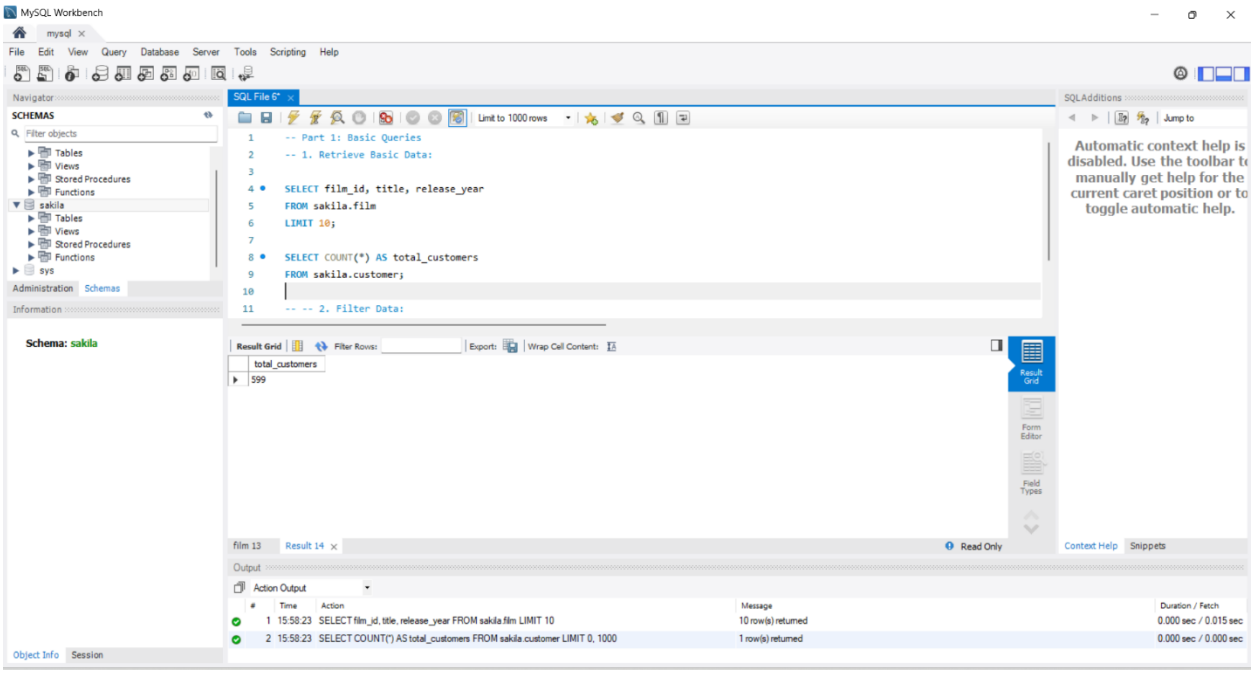
Name: Yeab Chhunsann
Class: M1
Part: 1
1. Retrieve Basic Data:

- Write a query to list the first 10 films, displaying the film_id, title, and release_year.

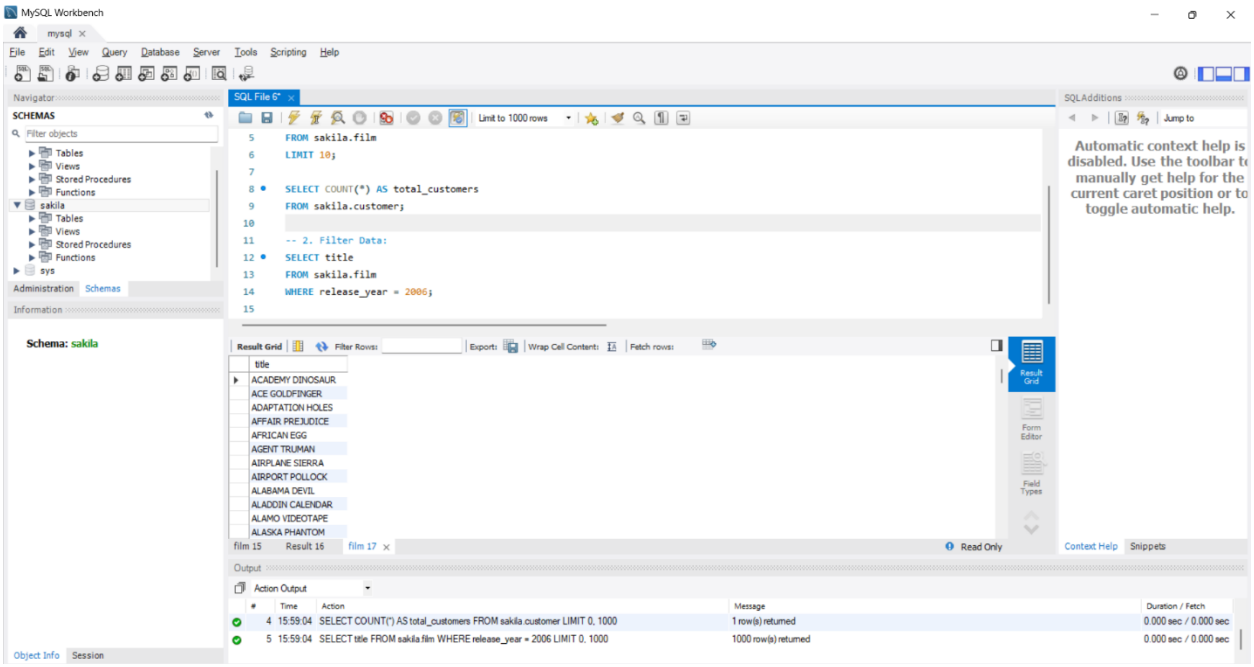


- Find the total number of customers in the database.

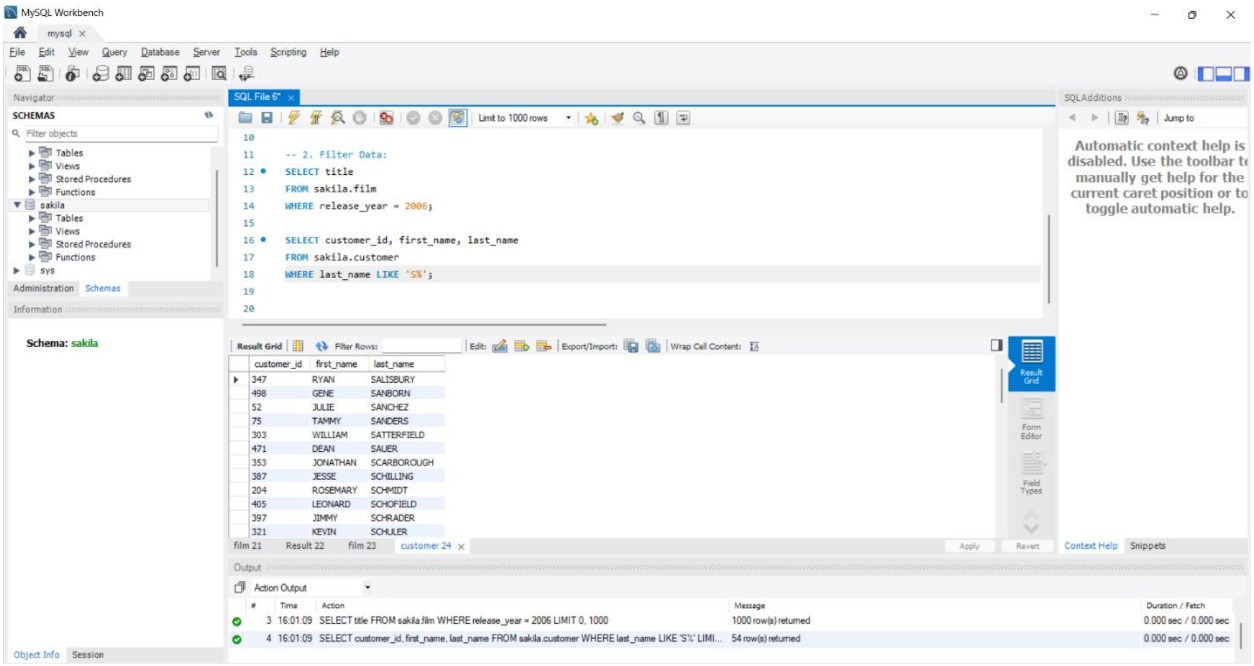


2. Filter Data:

- List all movies in the film table released in the year 2006.

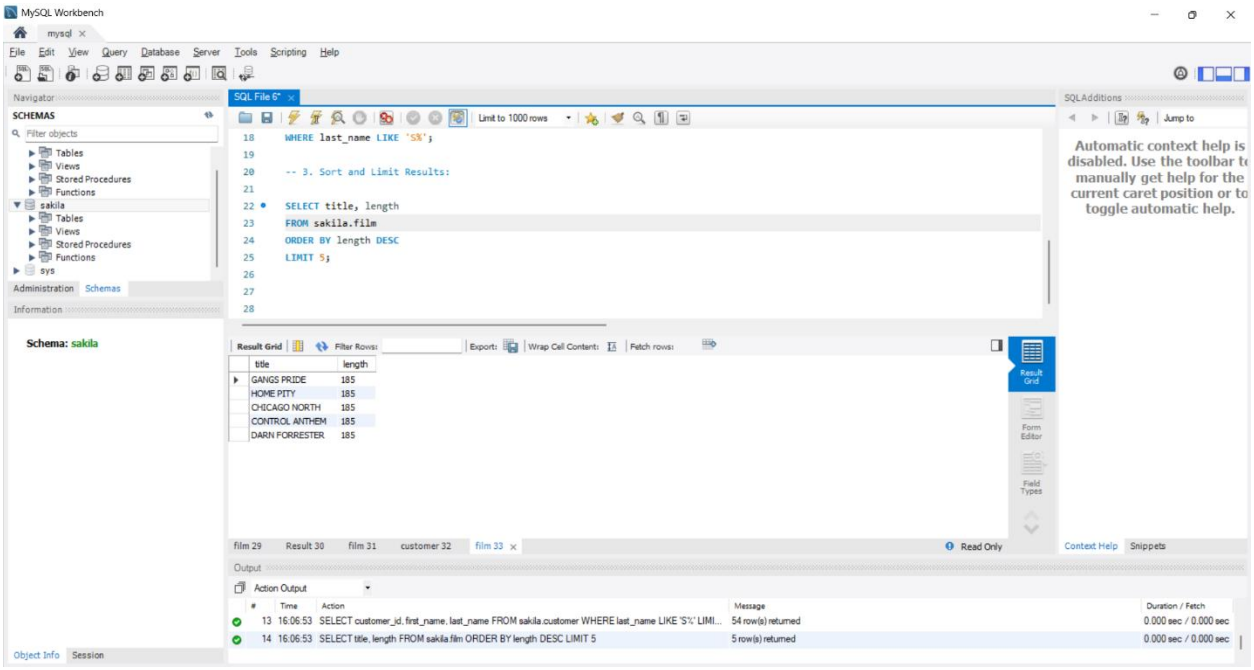


- Retrieve all customers whose last name starts with the letter “S”.

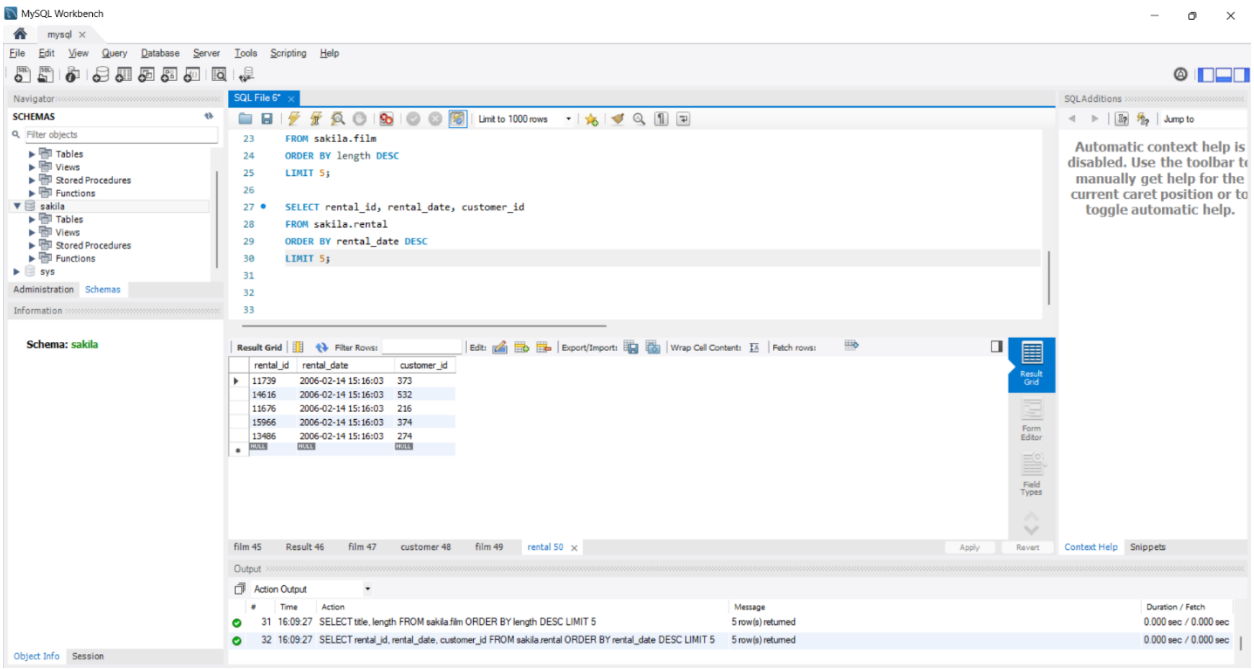


3. Sort and Limit Results:

- Find the top 5 longest movies (length), displaying title and length.



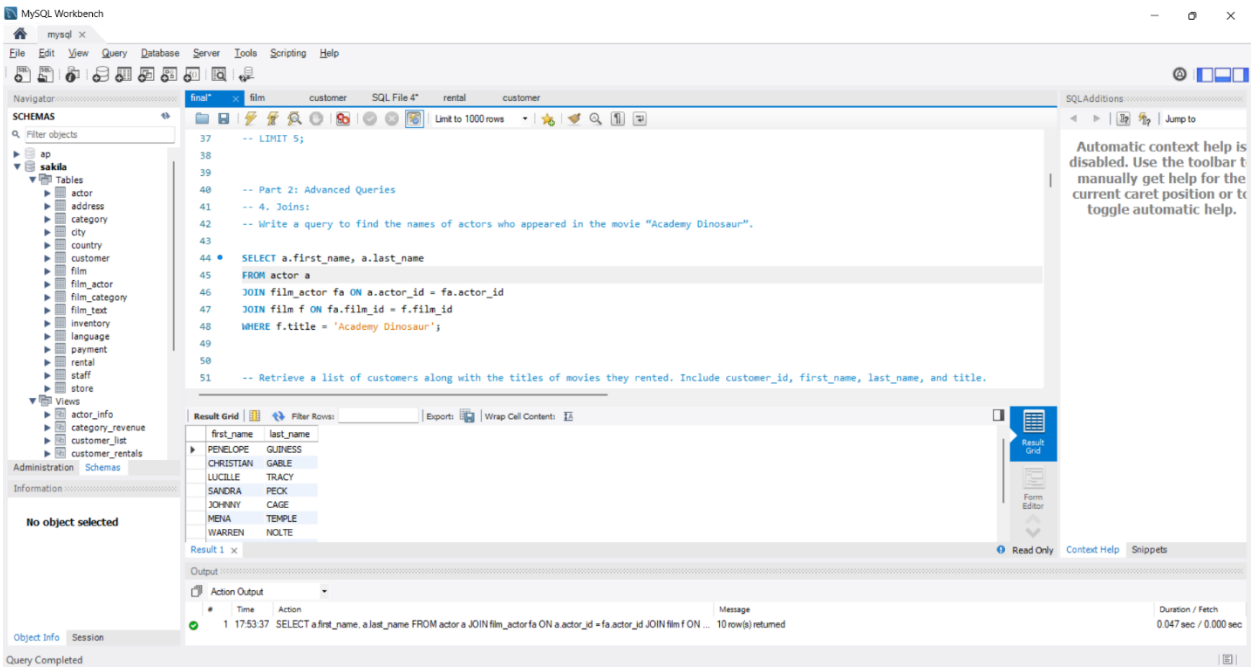
- List the 5 most recent rentals, showing rental_id, rental_date, and customer_id.



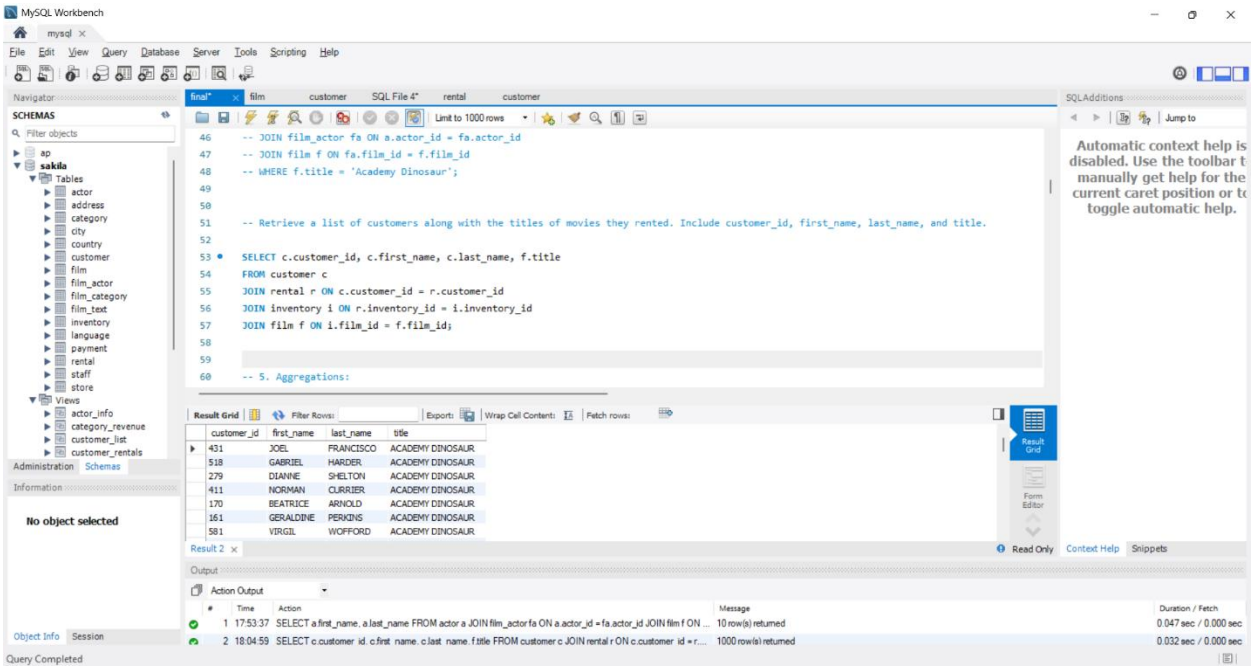
Part 2: Advanced Queries

4. Joins:

- Write a query to find the names of actors who appeared in the movie “Academy Dinosaur”.

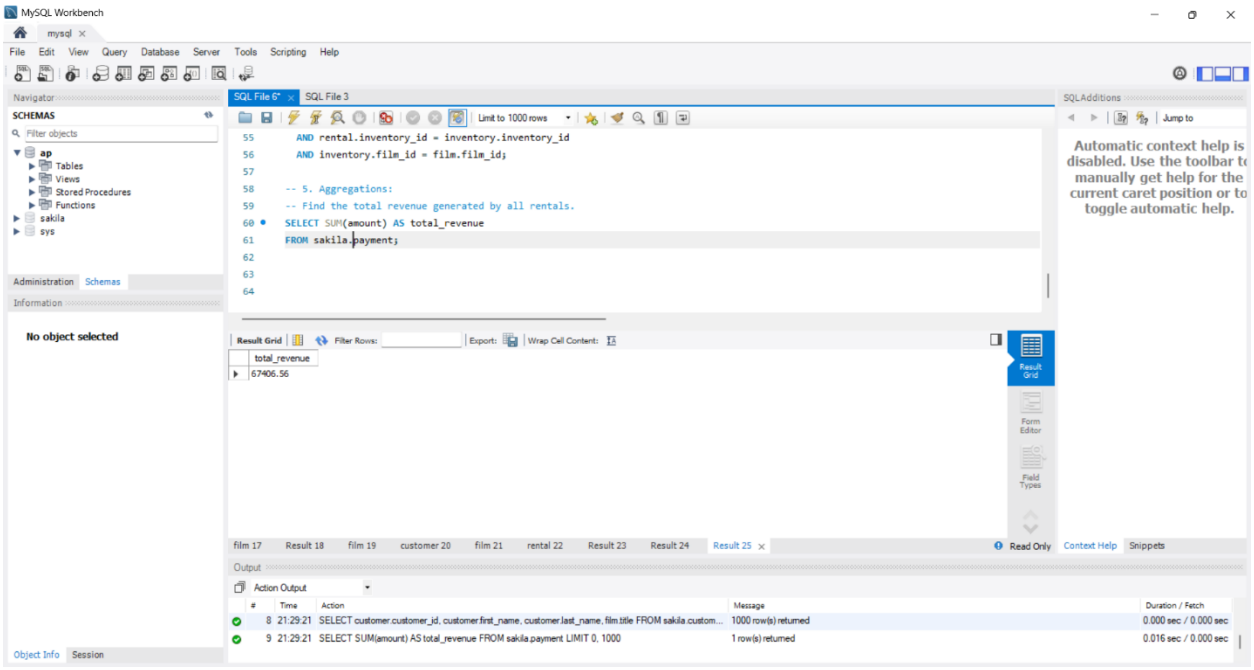


- Retrieve a list of customers along with the titles of movies they rented. Include customer_id, first_name, last_name, and title.

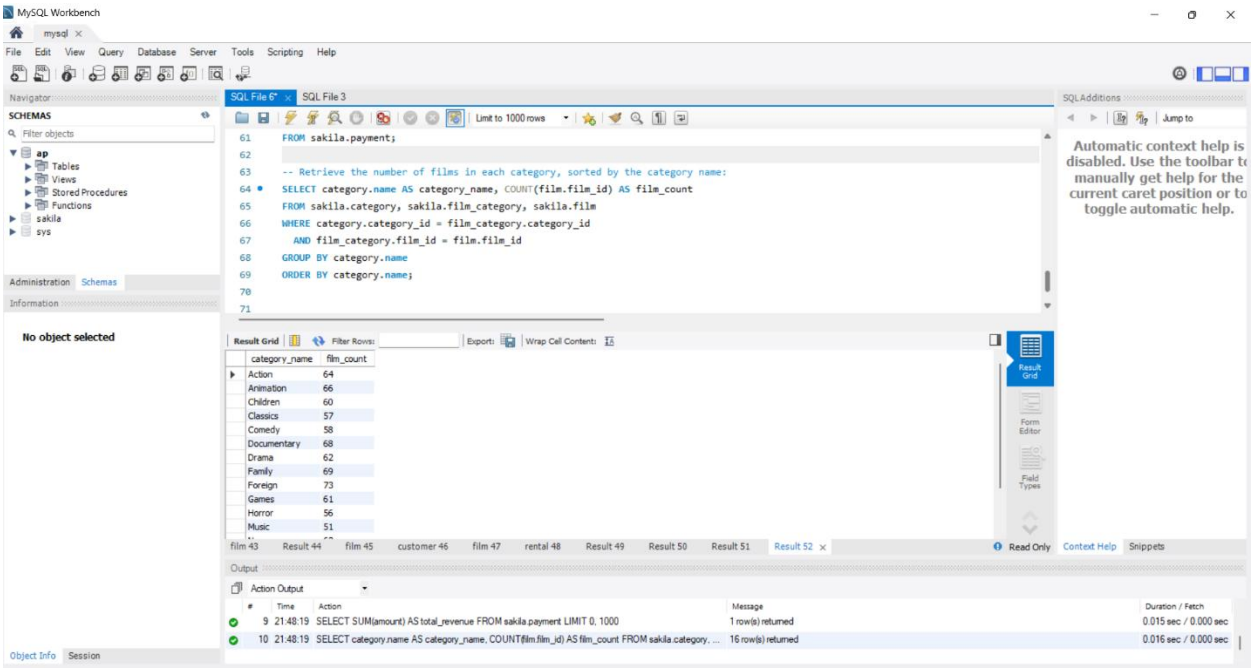


5. Aggregations:

- Find the total revenue generated by all rentals.

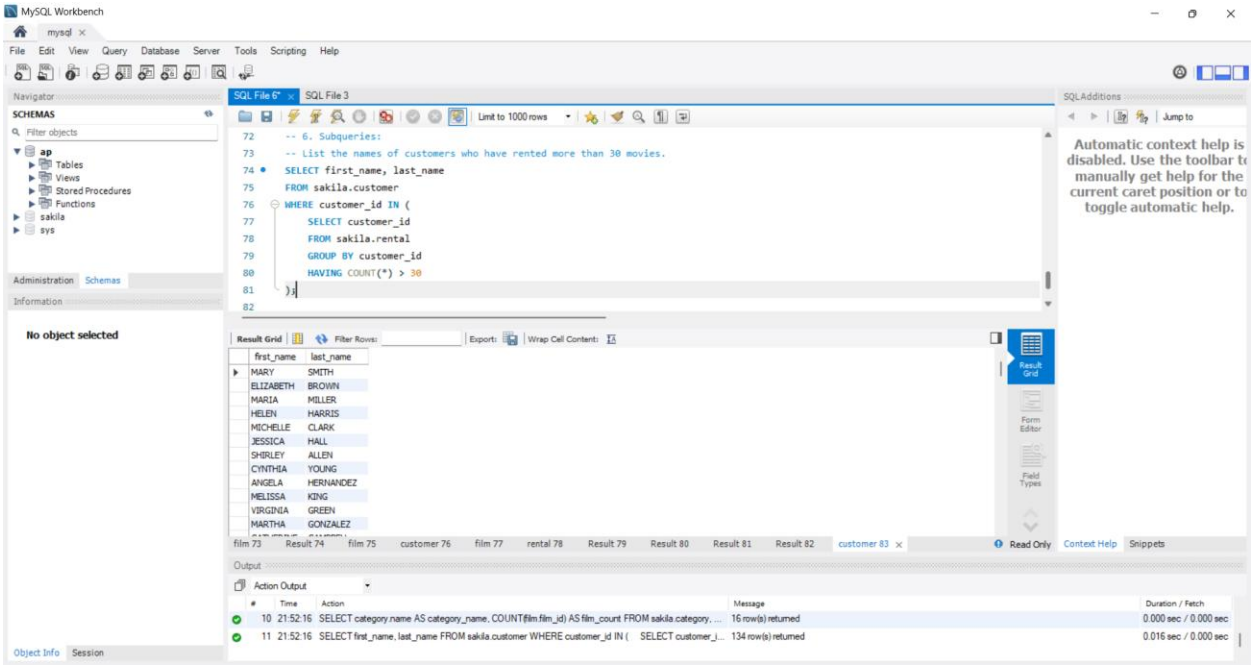


- Retrieve the number of films in each category, sorted by the category name.

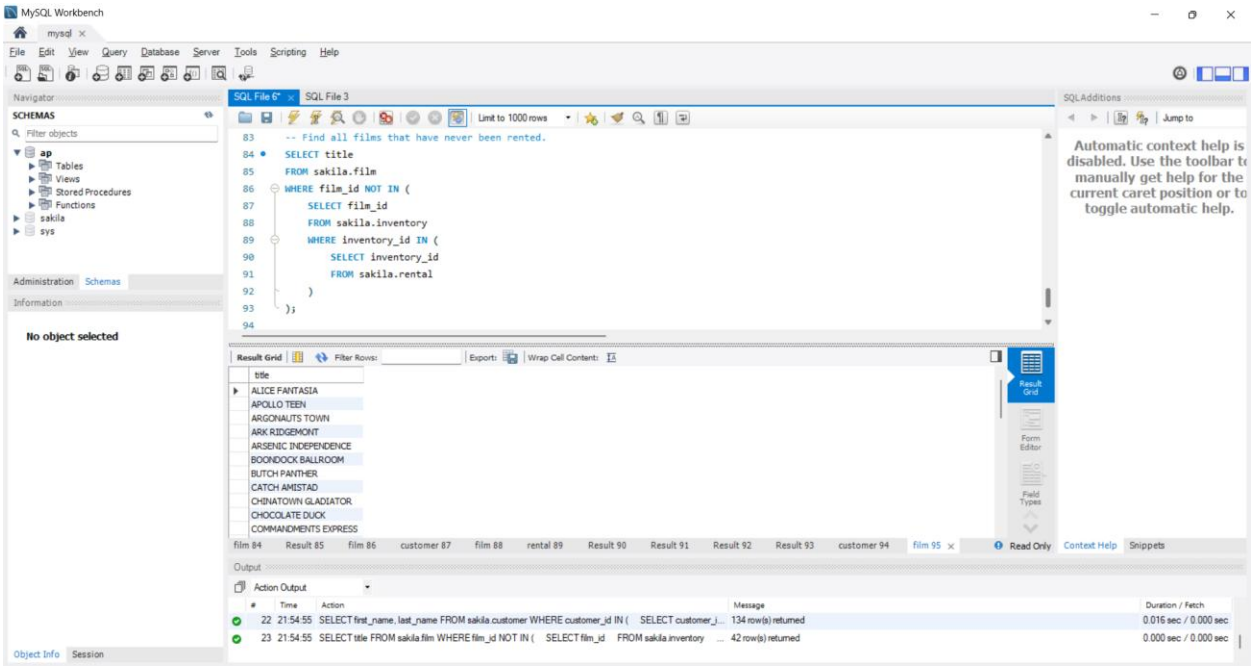


6.Subqueries:

- List the names of customers who have rented more than 30 movies.

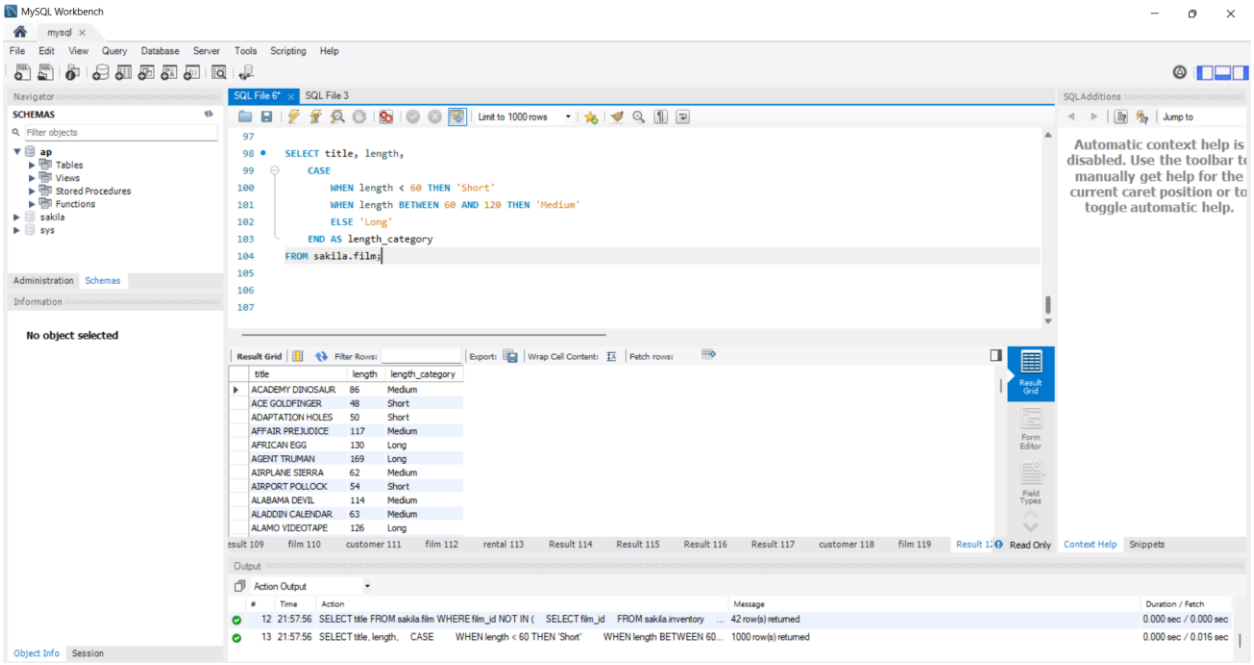


- Find all films that have never been rented.



7. Case Statements

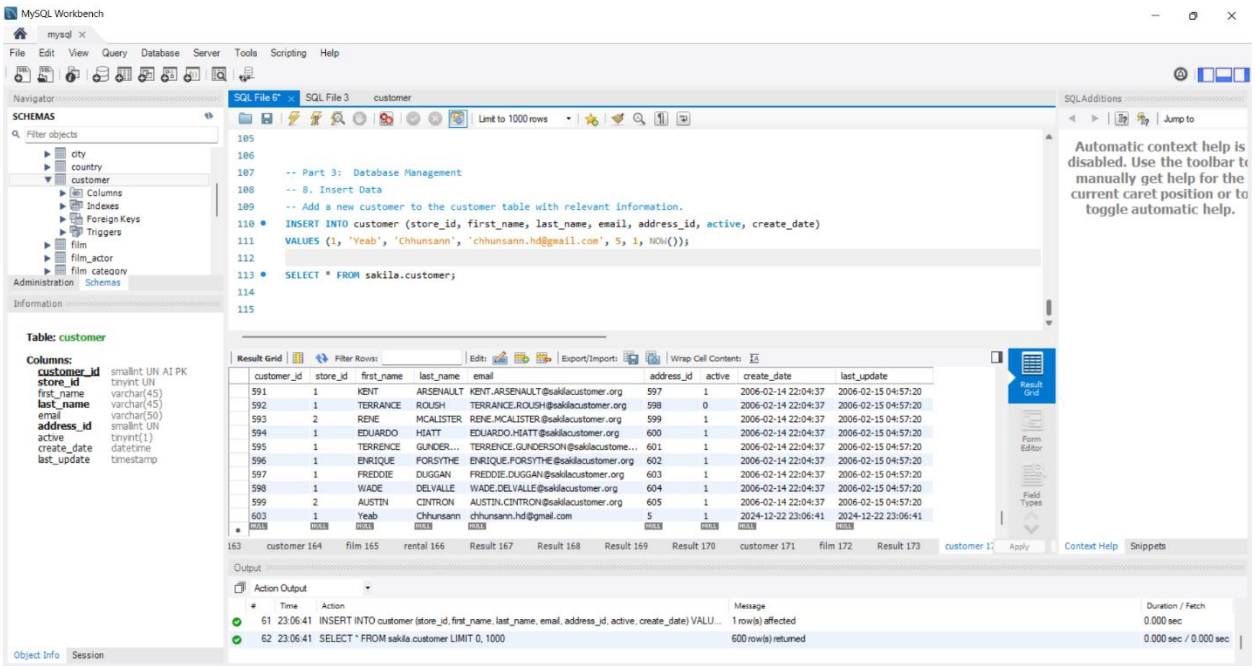
- Categorize movies based on their length



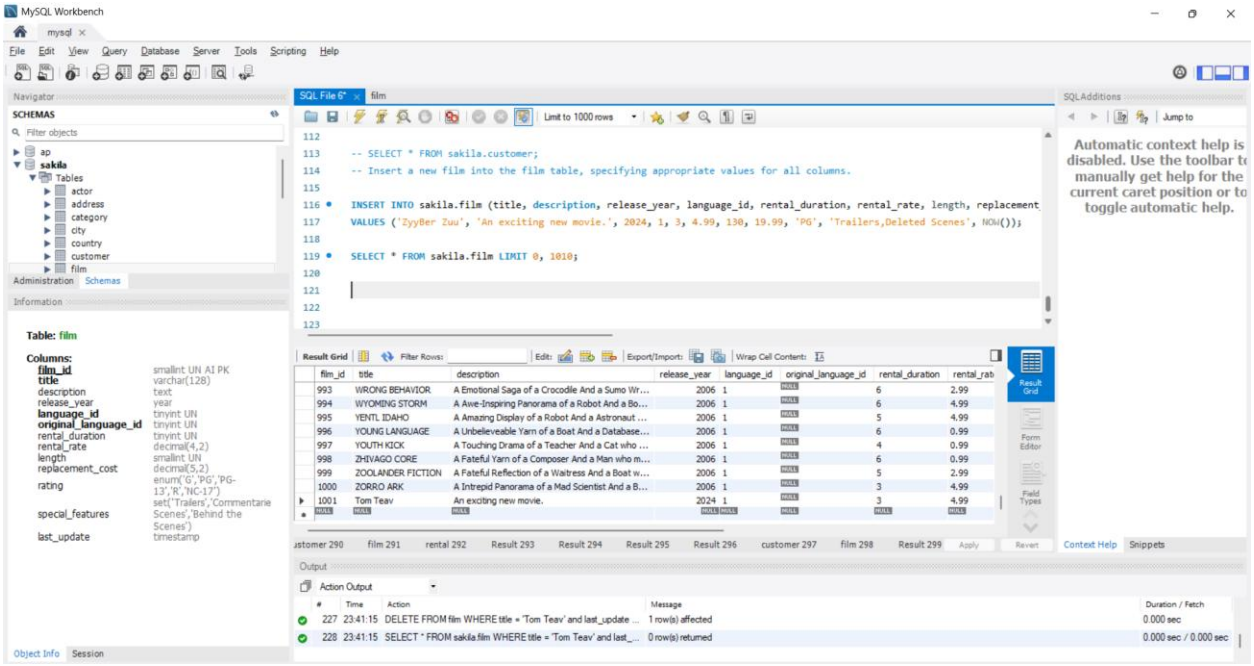
Part 3: Database Management

8. Insert Data

- Add a new customer to the customer table with relevant information.

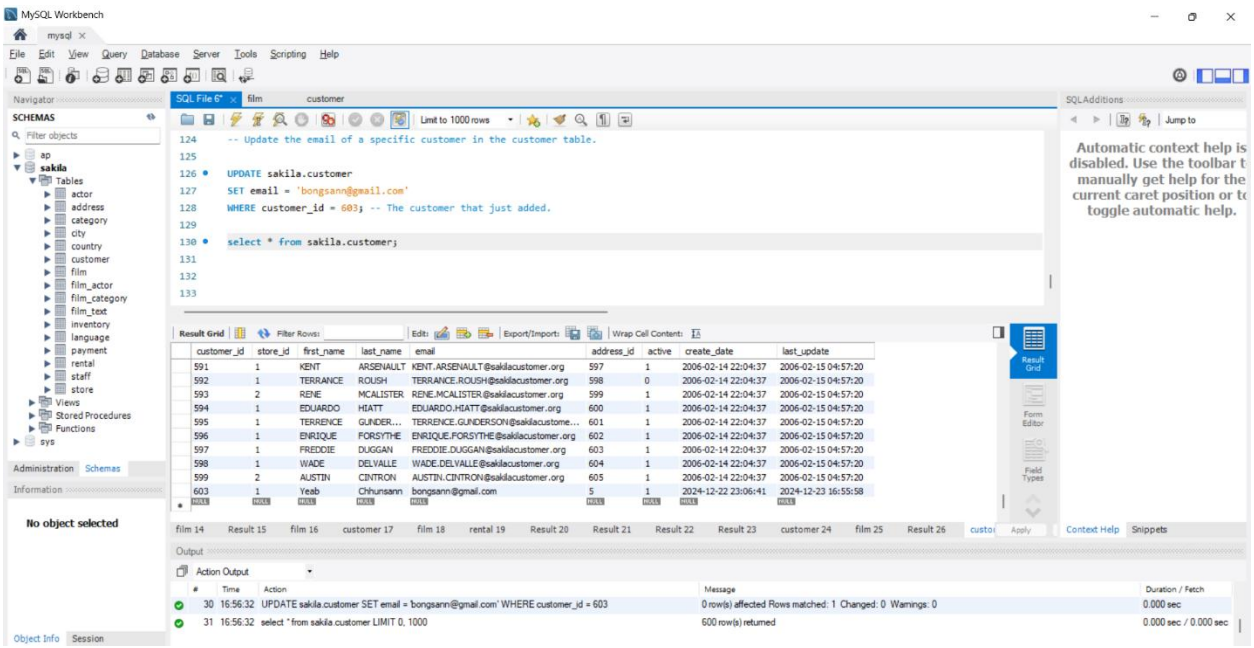


- Insert a new film into the film table, specifying appropriate values for all columns.

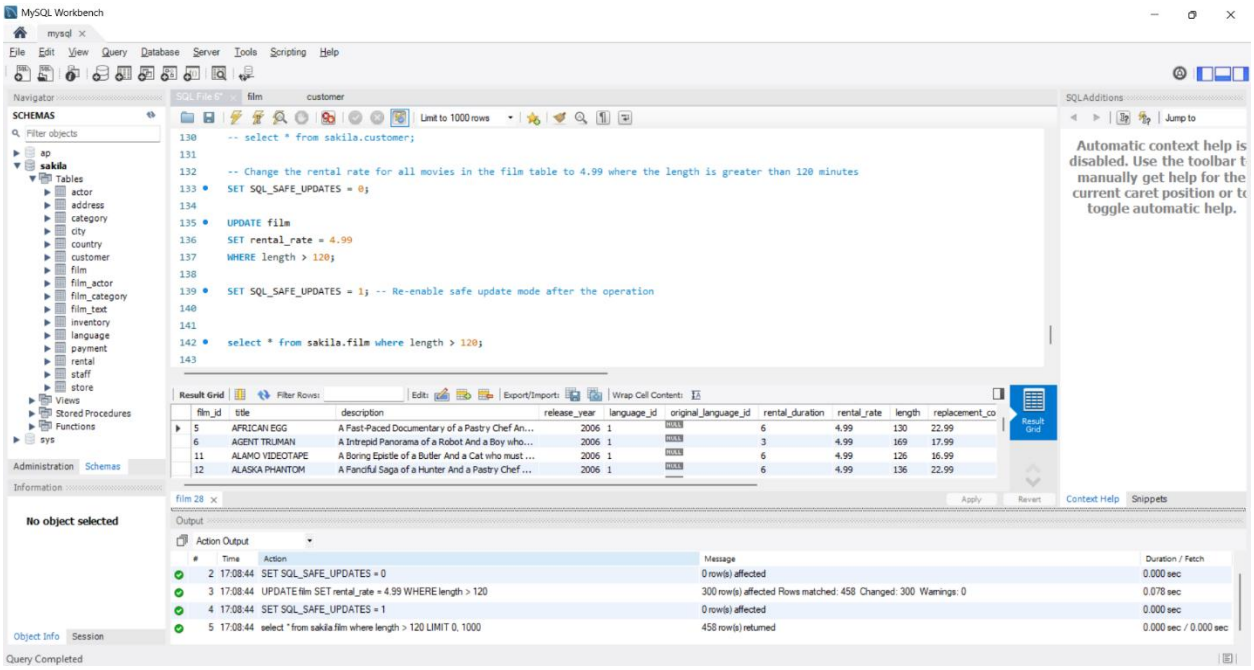


9. Update Data:

- Update the email of a specific customer in the customer table.

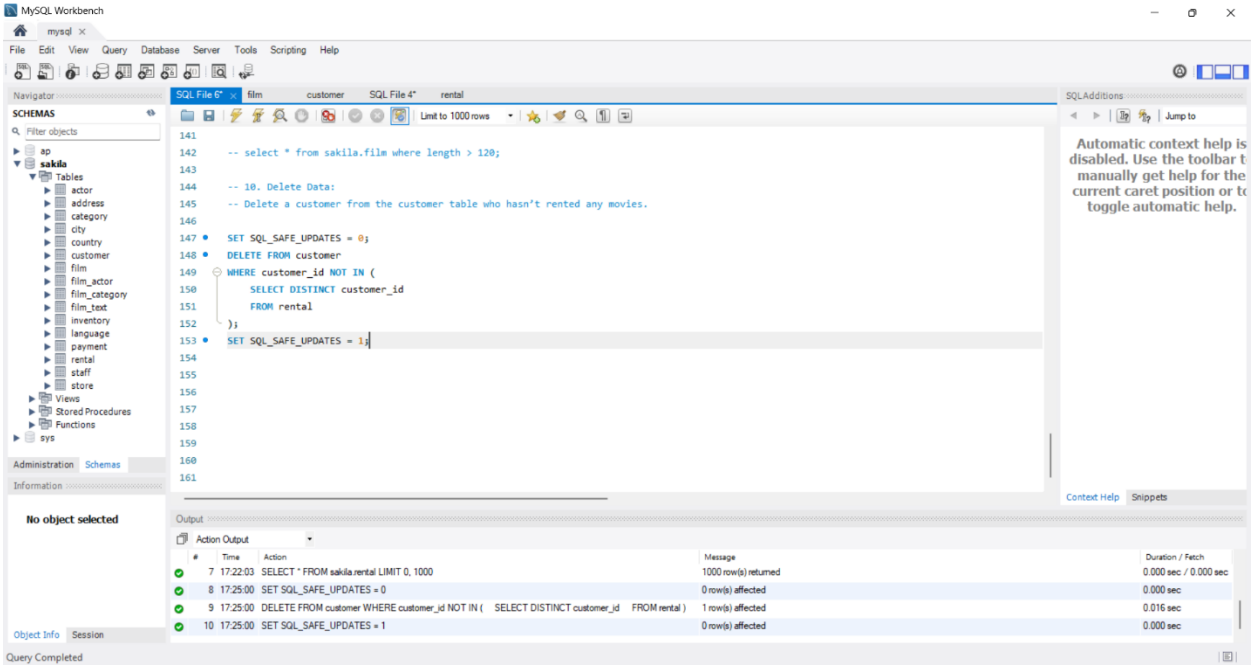


- Change the rental rate for all movies in the film table to 4.99 where the length is greater than 120 minutes

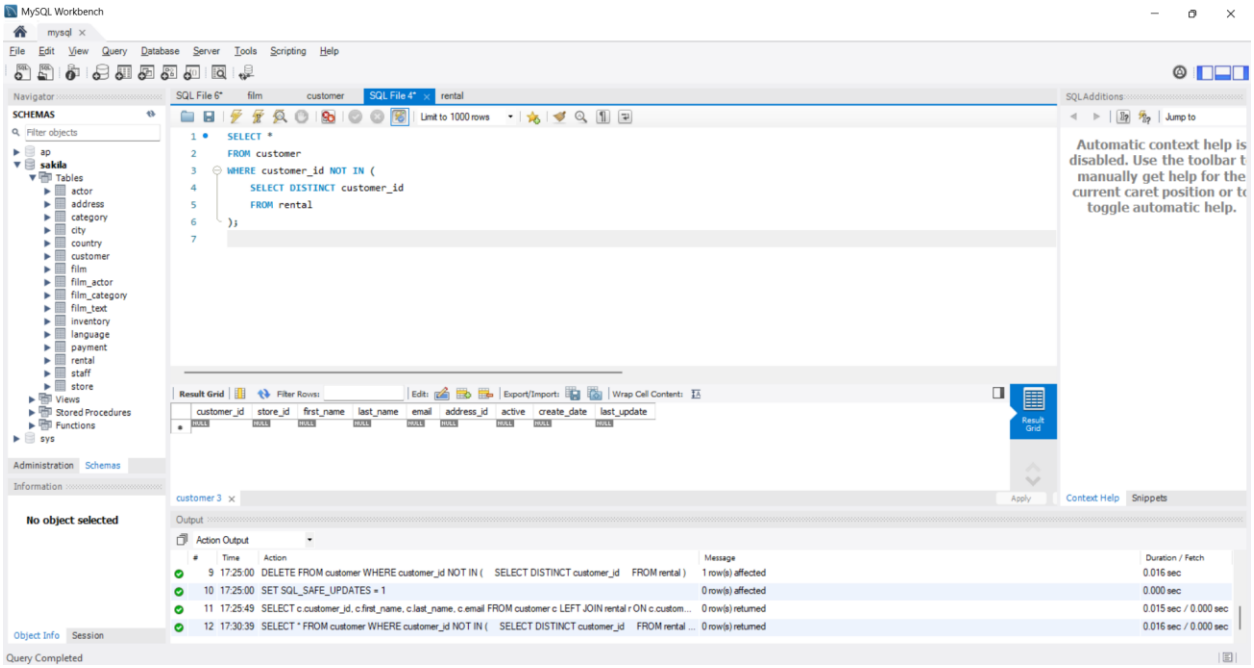


10. Delete Data:

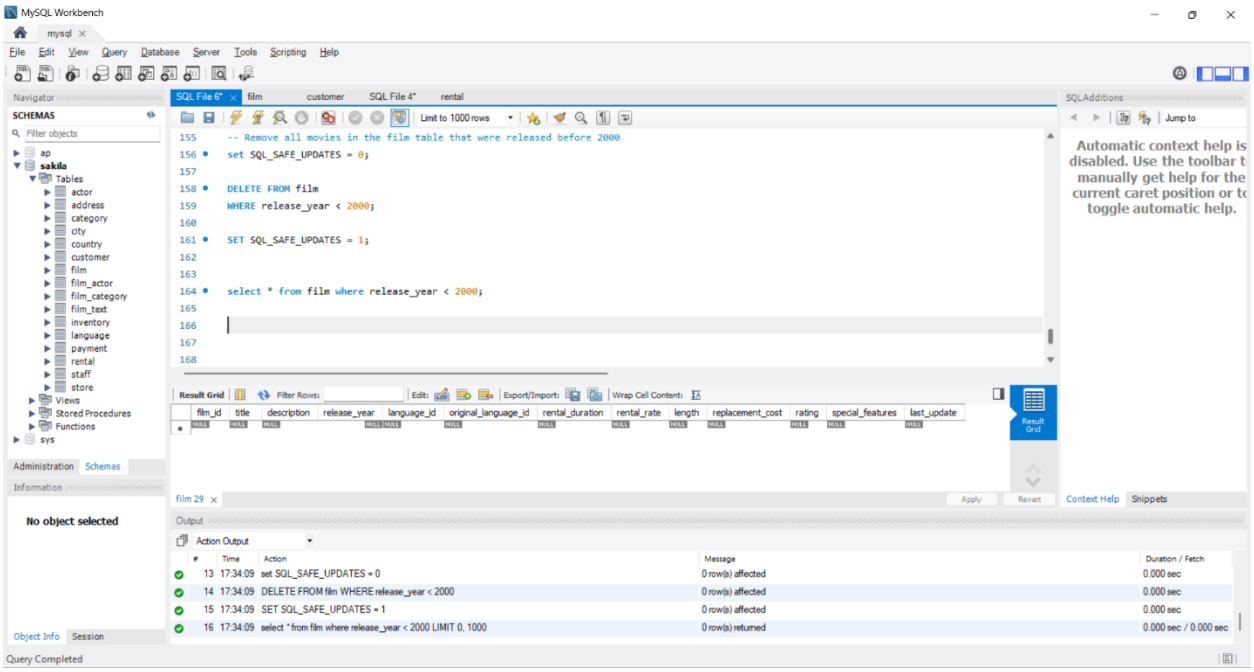
- Delete a customer from the customer table who hasn’t rented any movies



- **The verification after delete a customer table who hasn’t rented any movies**

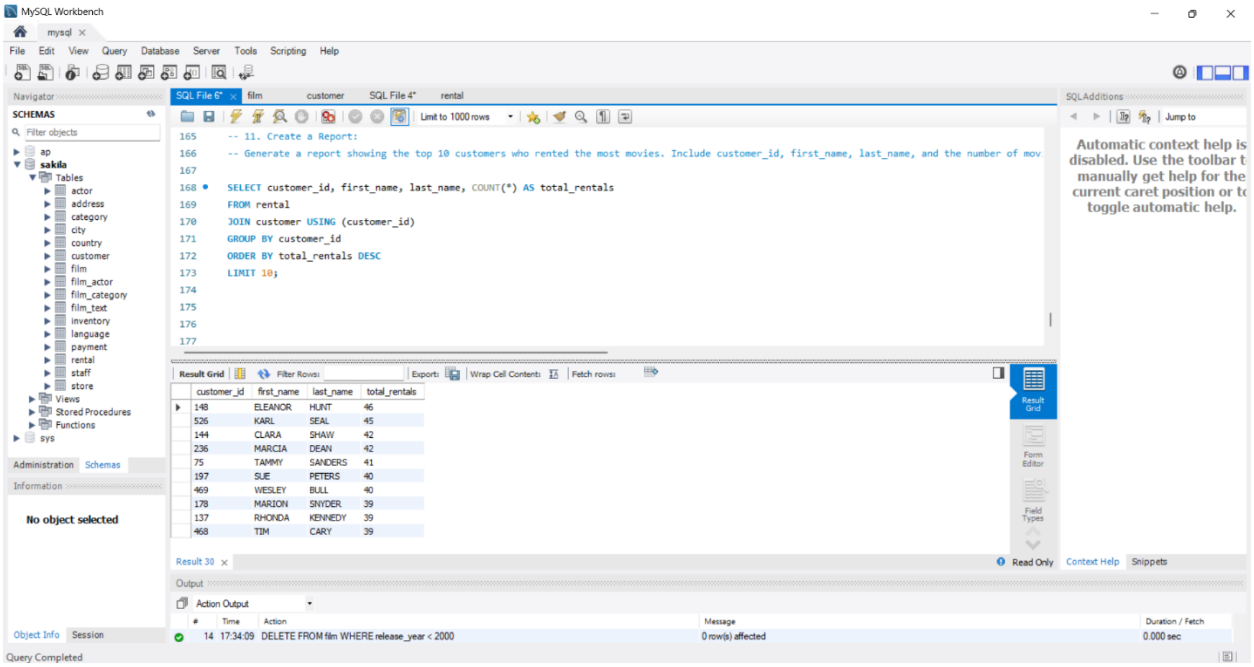


- Remove all movies in the film table that were released before 2000



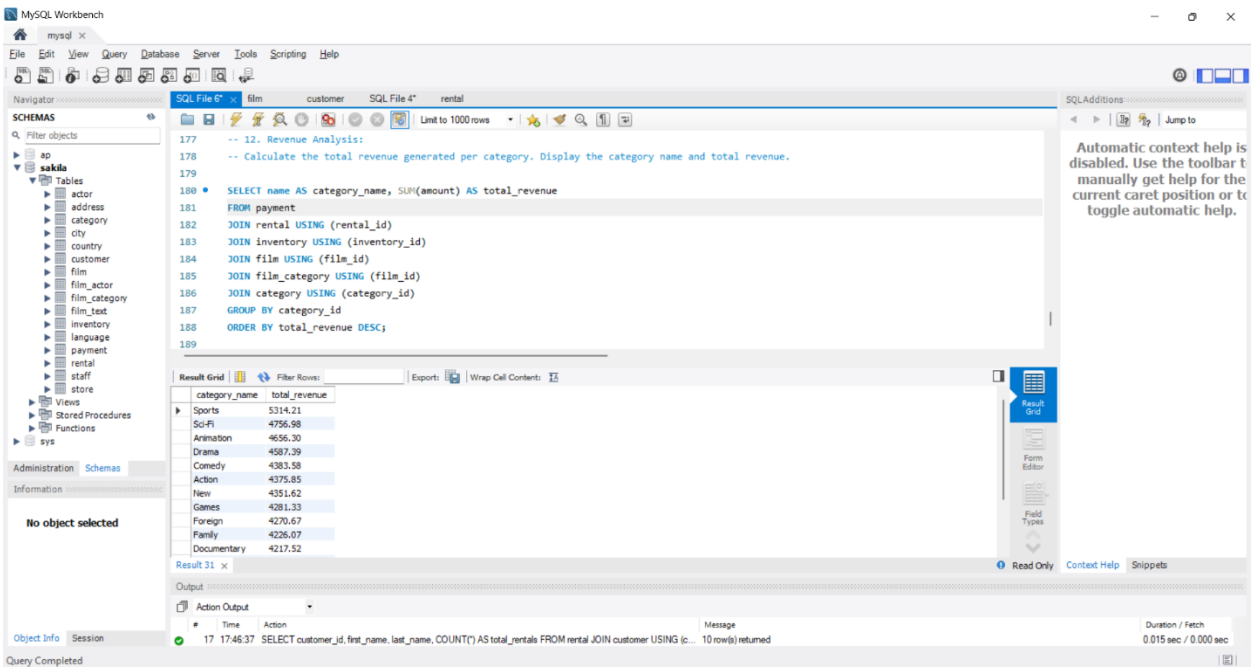
11. Create a Report:

- Generate a report showing the top 10 customers who rented the most movies. Include customer_id, first_name, last_name, and the number of movies rented.



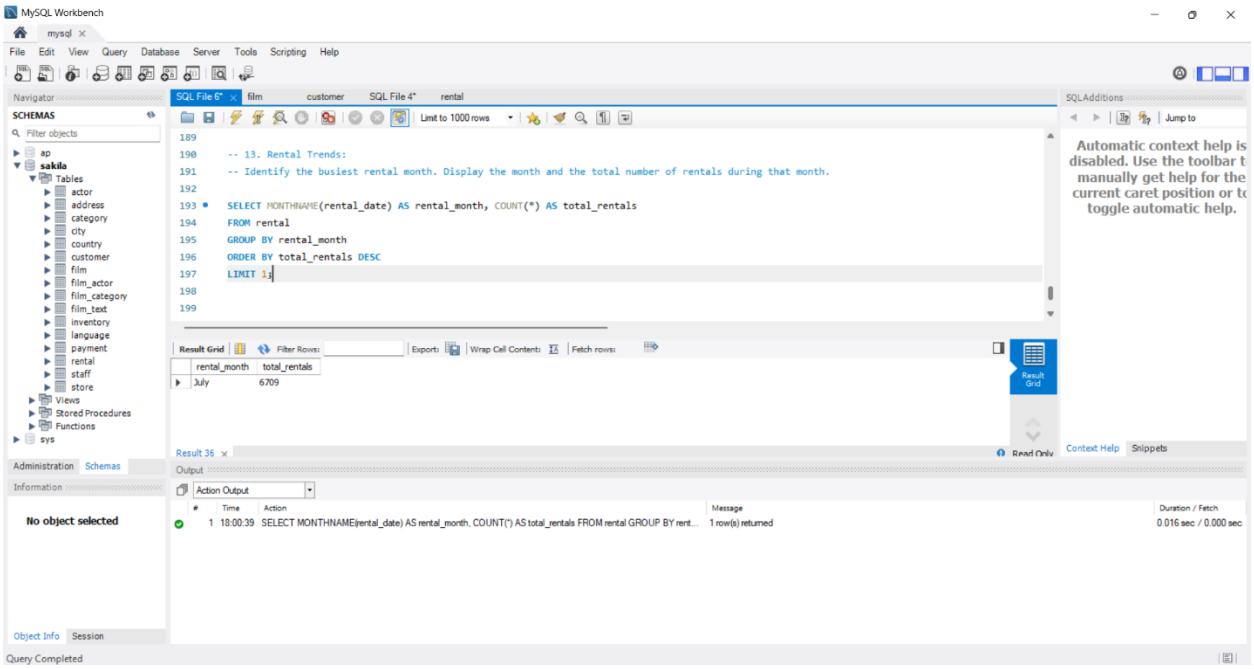
12. Revenue Analysis:

- Calculate the total revenue generated per category. Display the category name and total revenue.



13. Rental Trends:

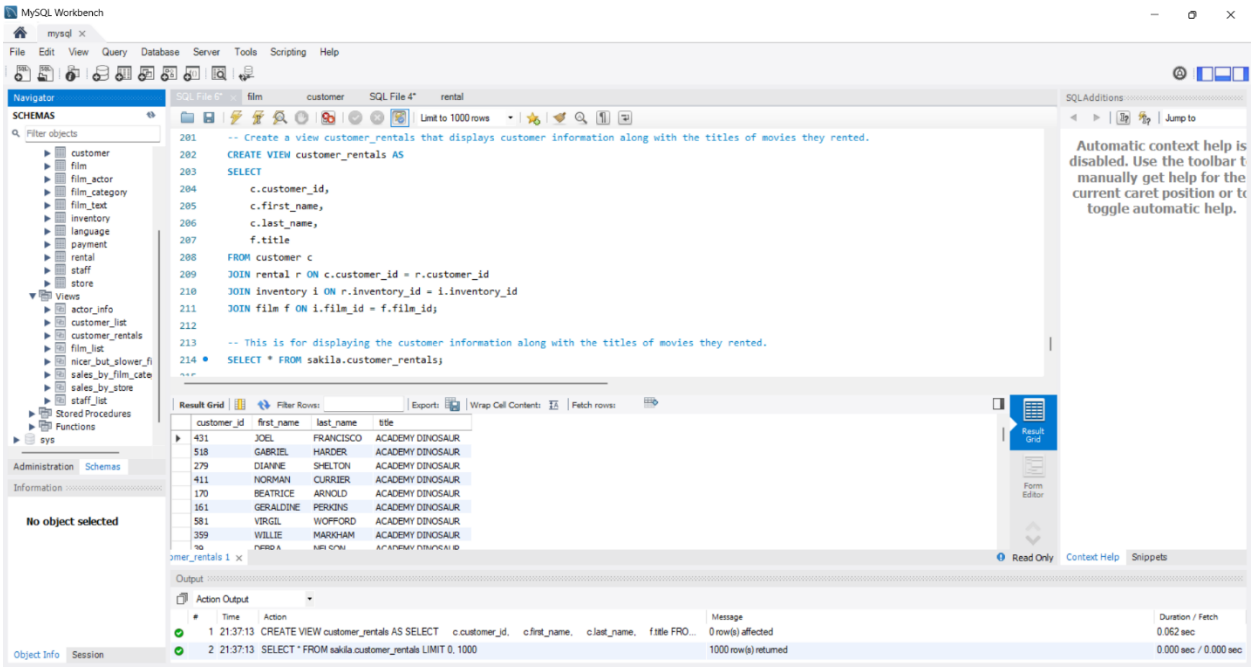
- Identify the busiest rental month. Display the month and the total number of rentals during that month.



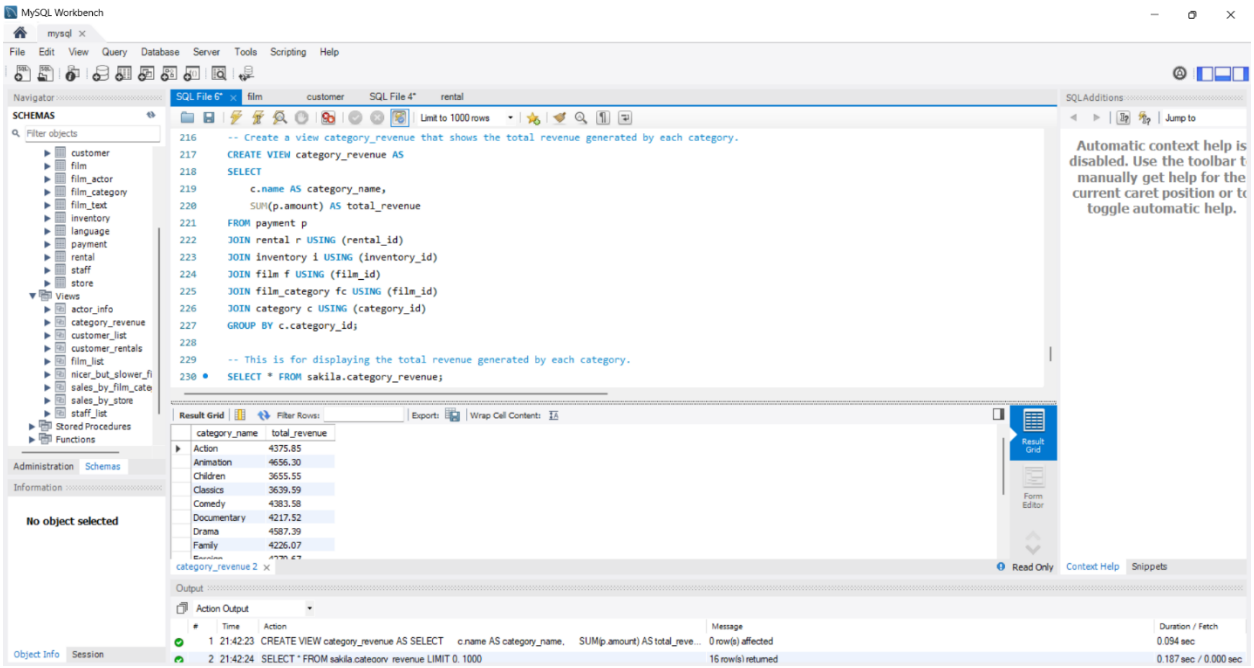
Part 5: Views, Indexes, and Stored Procedures

14. Create Views:

- Create a view customer_rentals that displays customer information along with the titles of movies they rented.

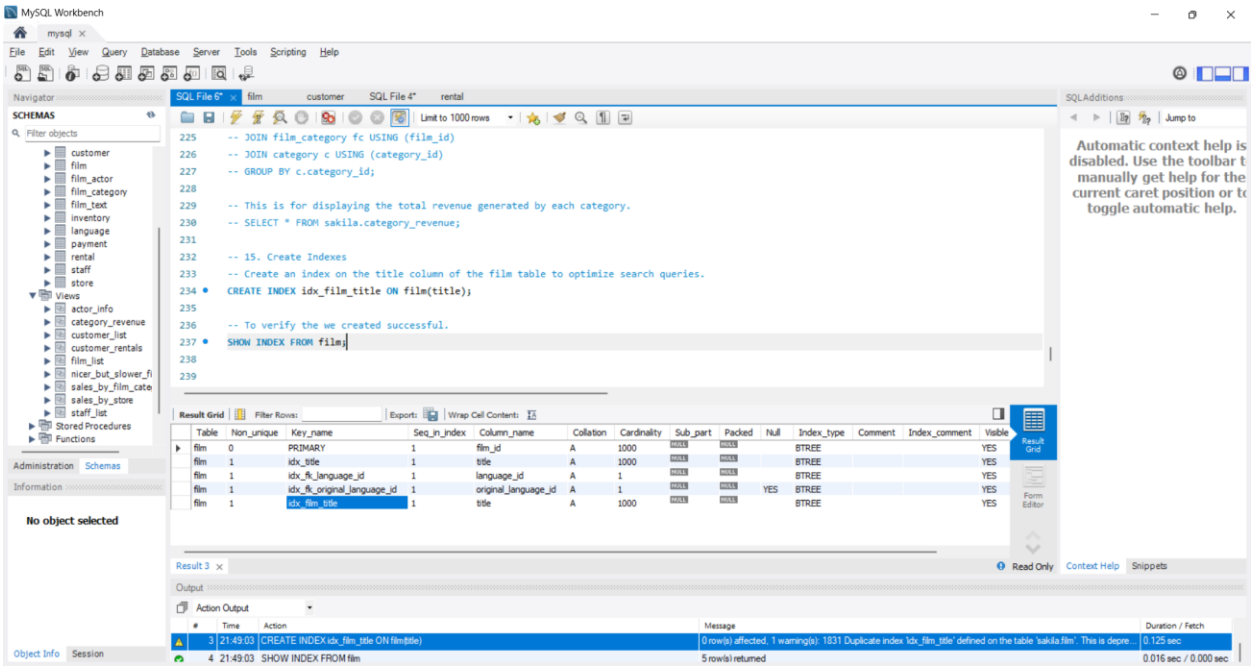


- Create a view category_revenue that shows the total revenue generated by each category.

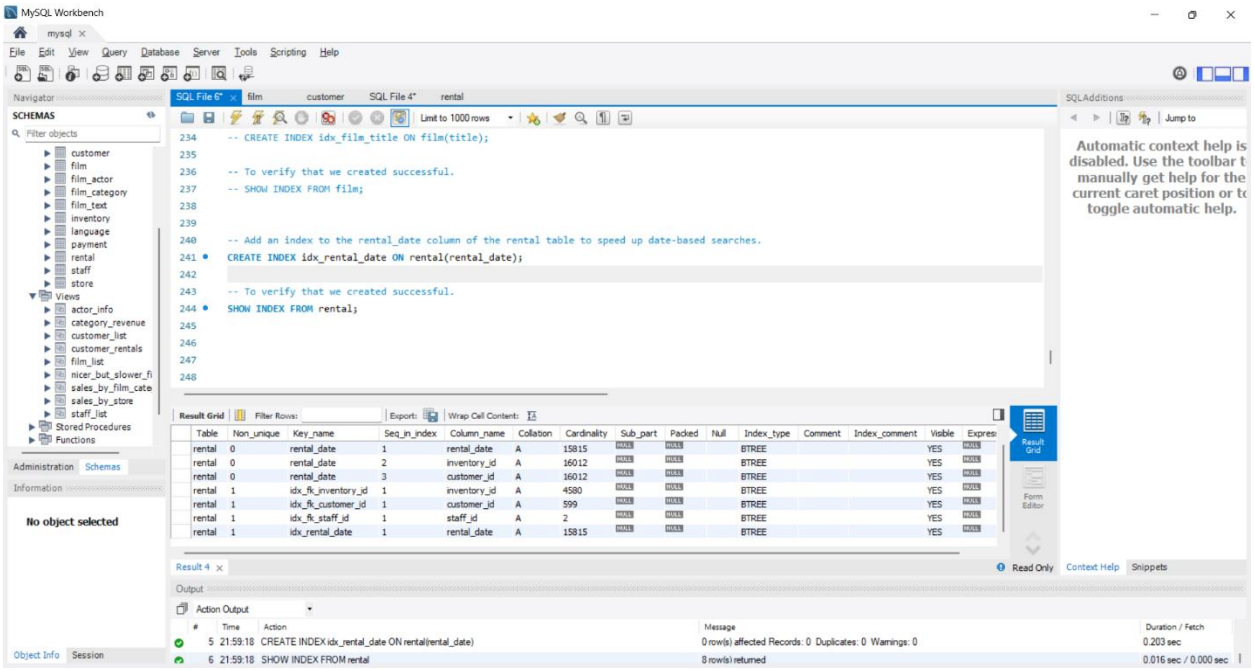


15. Create Indexes:

- Create an index on the title column of the film table to optimize search queries.



- Add an index to the rental_date column of the rental table to speed up date-based searches.



16. Stored Procedure:

- Write a stored procedure get_customer_rentals that accepts a customer_id as input and returns the list of movies rented by that customer.