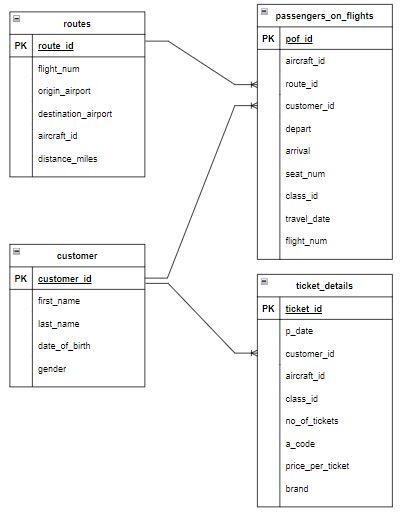
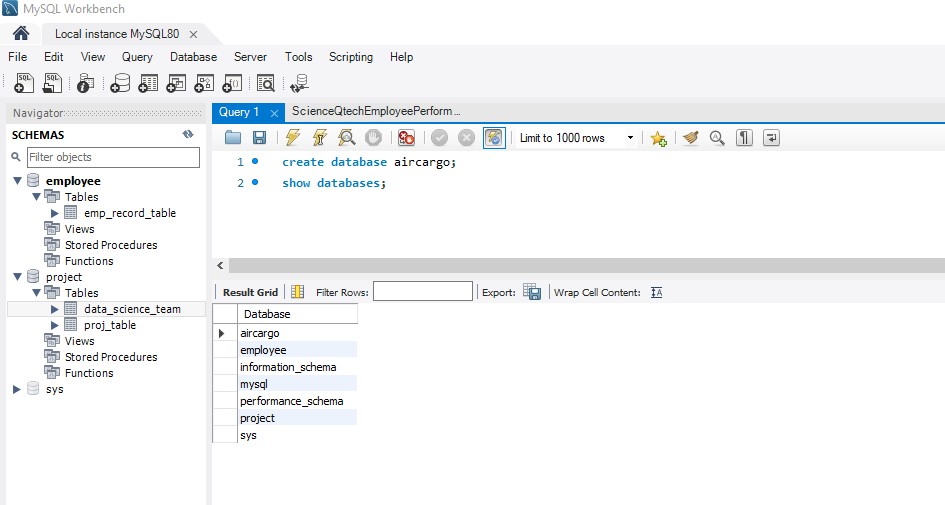
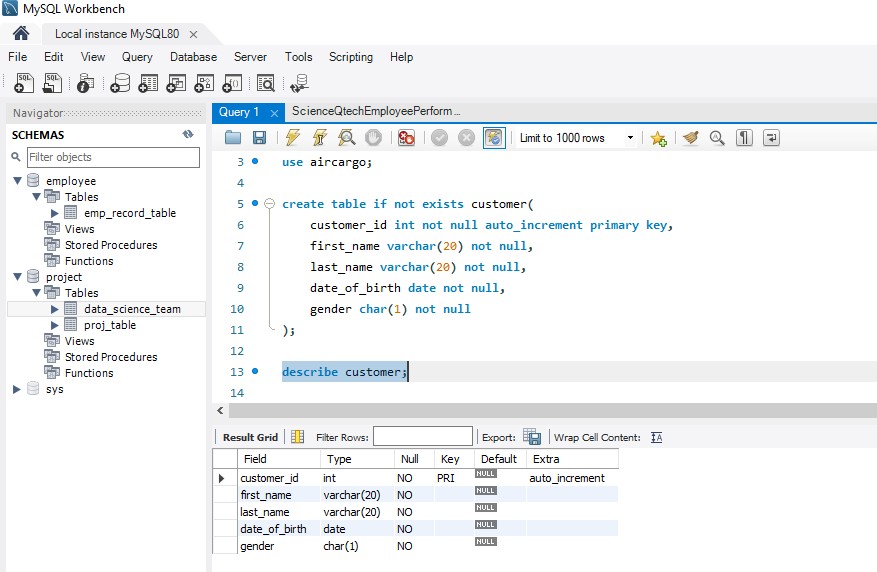


**Following operations should be performed: SQL Code and Output Screenshots**

1. Create an ER diagram for the given airlines database.

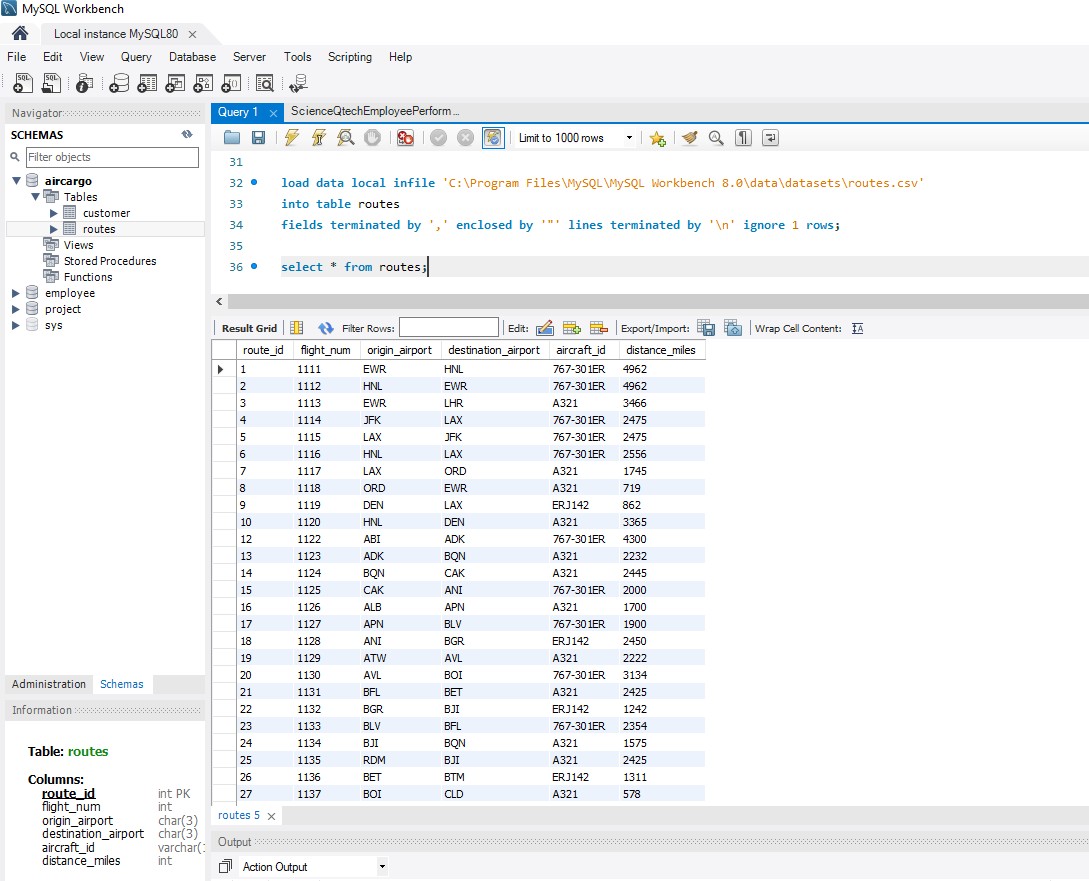


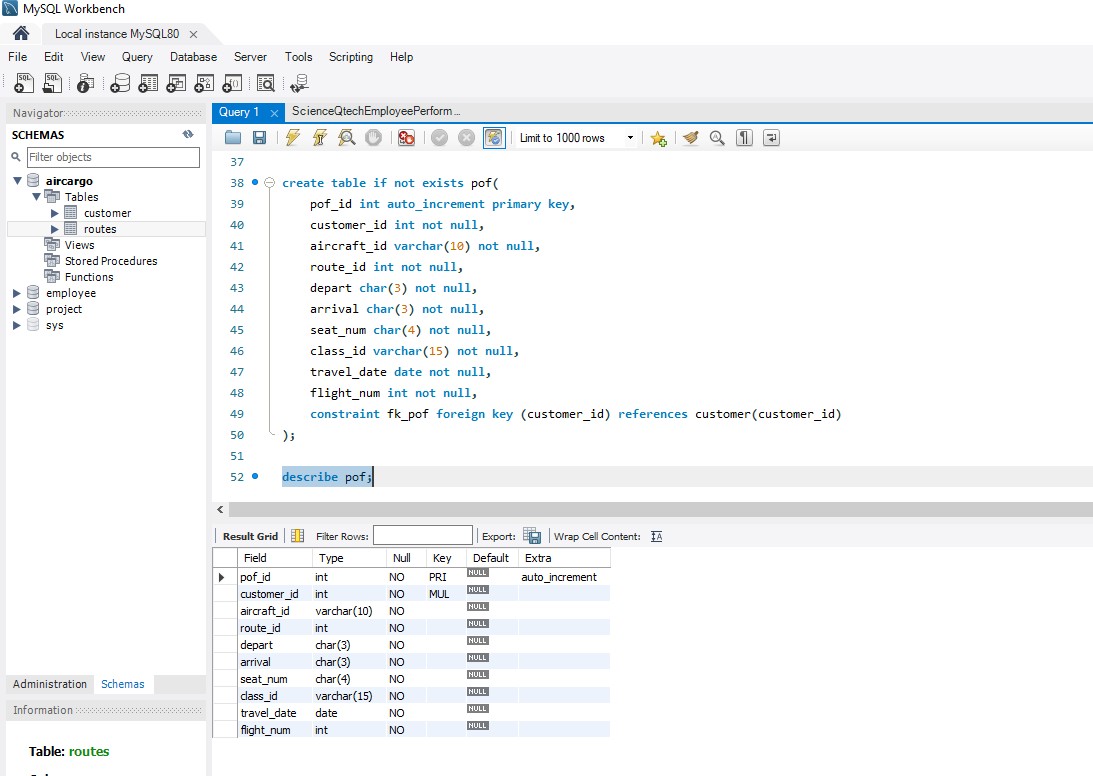
1. Write a query to create route\_details table using suitable data types for the fields, such as route\_id, flight\_num, origin\_airport, destination\_airport, aircraft\_id, and distance\_miles. Implement the check constraint for the flight number and unique constraint for the route\_id fields. Also, make sure that the distance miles field is greater than 0.

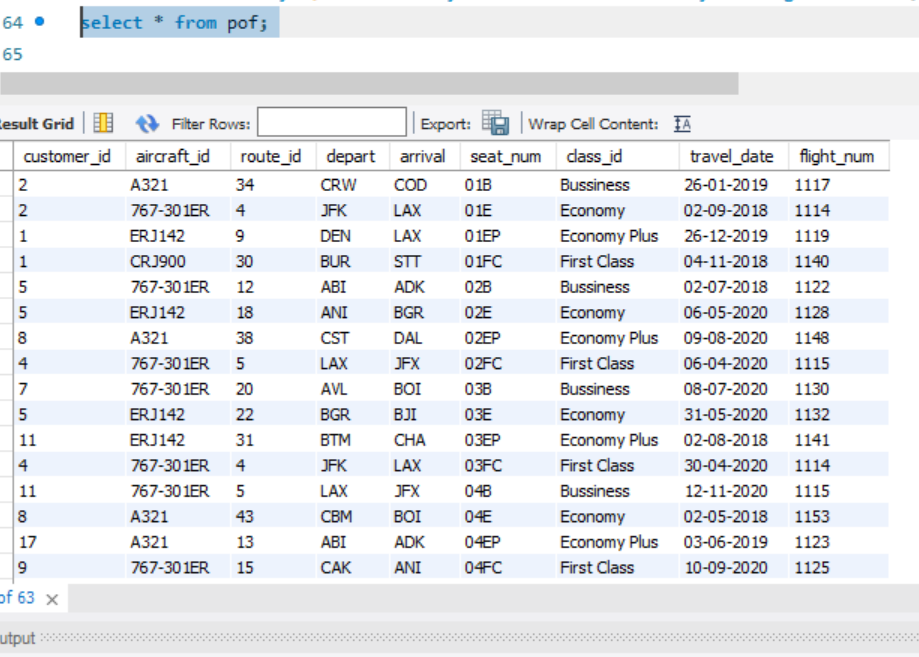
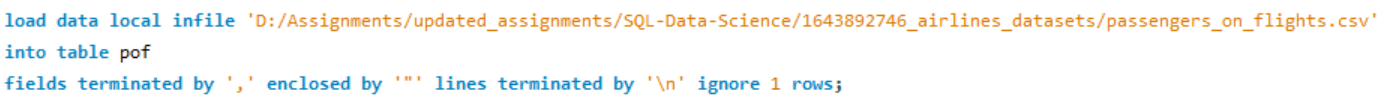


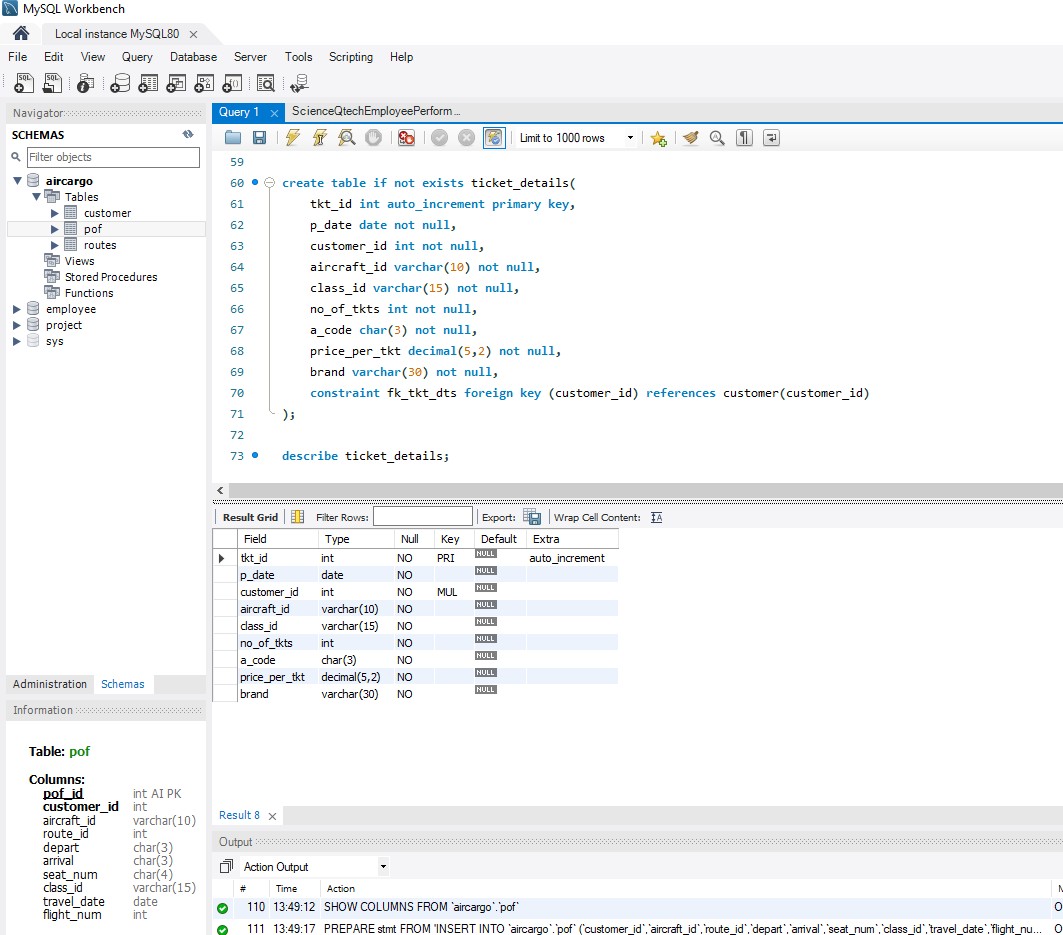






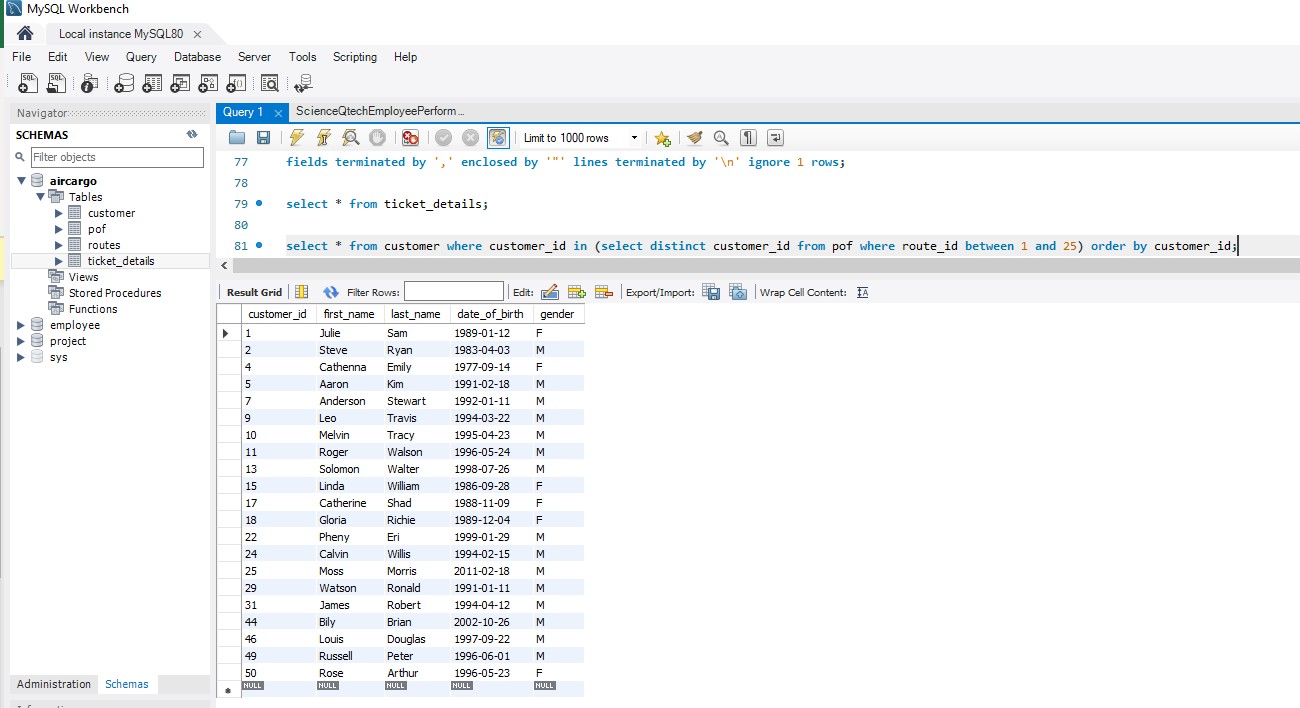








1. Write a query to display all the passengers (customers) who have travelled in routes 01 to 25. Take data from the passengers\_on\_flights table.

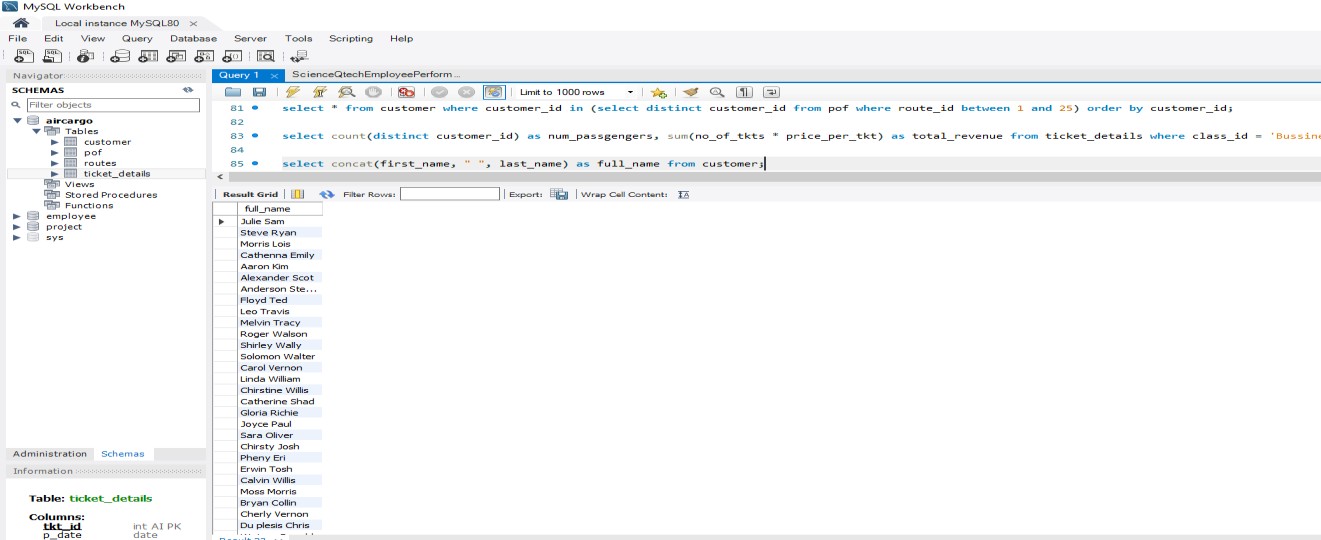


1. Write a query to identify the number of passengers and total revenue in business class from the ticket\_details table.

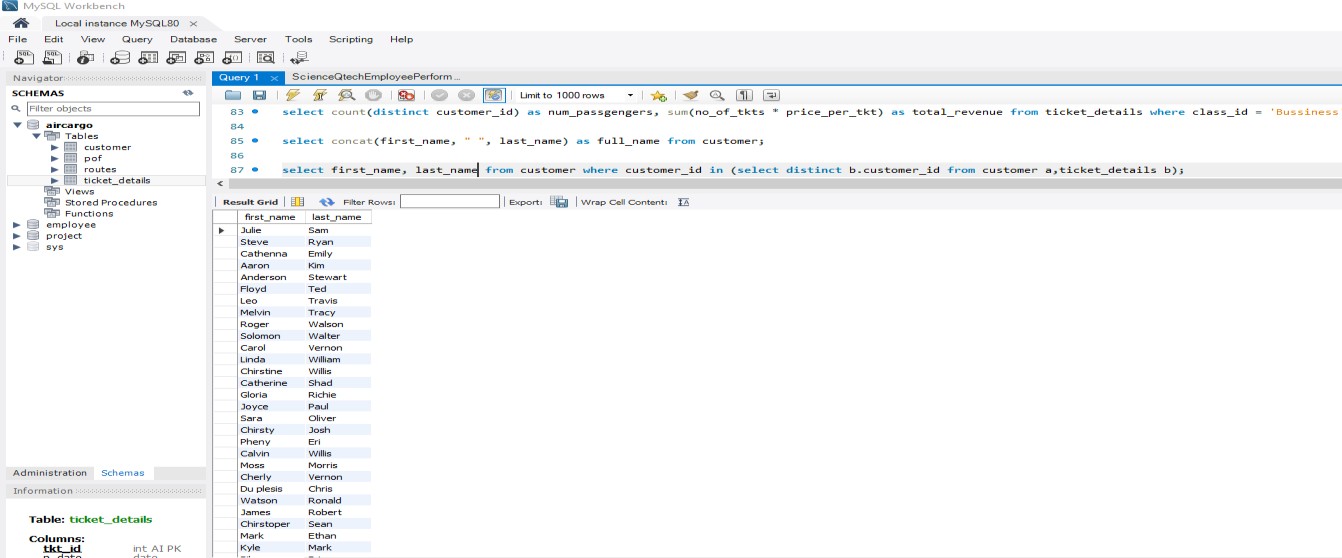
Graphical user interface, text, application

Description automatically generated

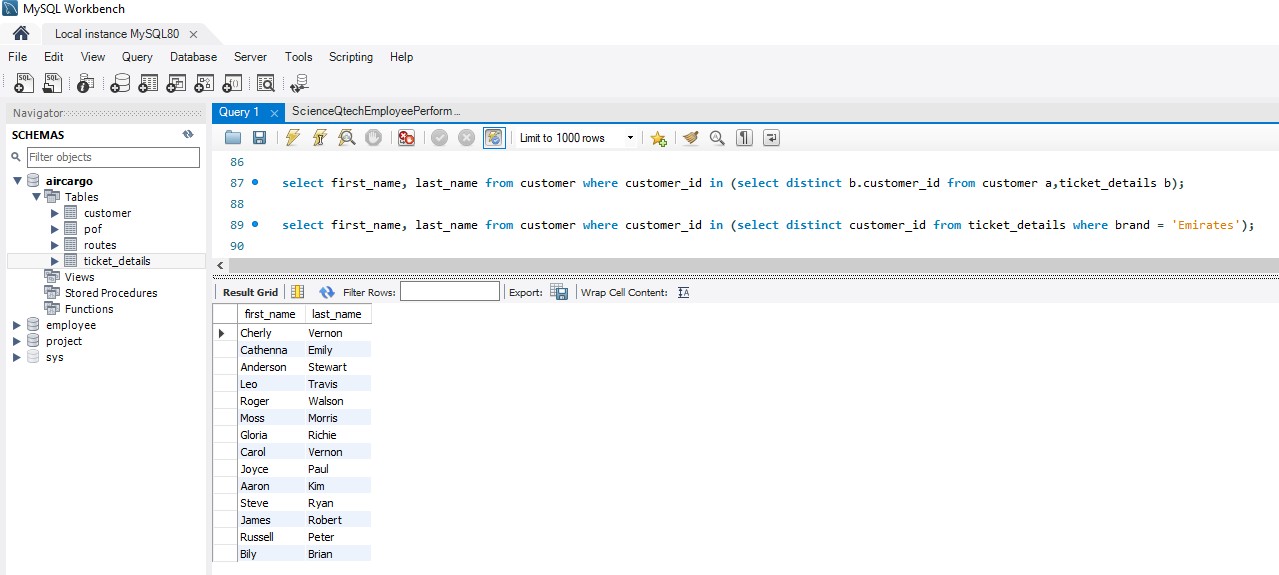
1. Write a query to display the full name of the customer by extracting the first name and last name from the customer table.



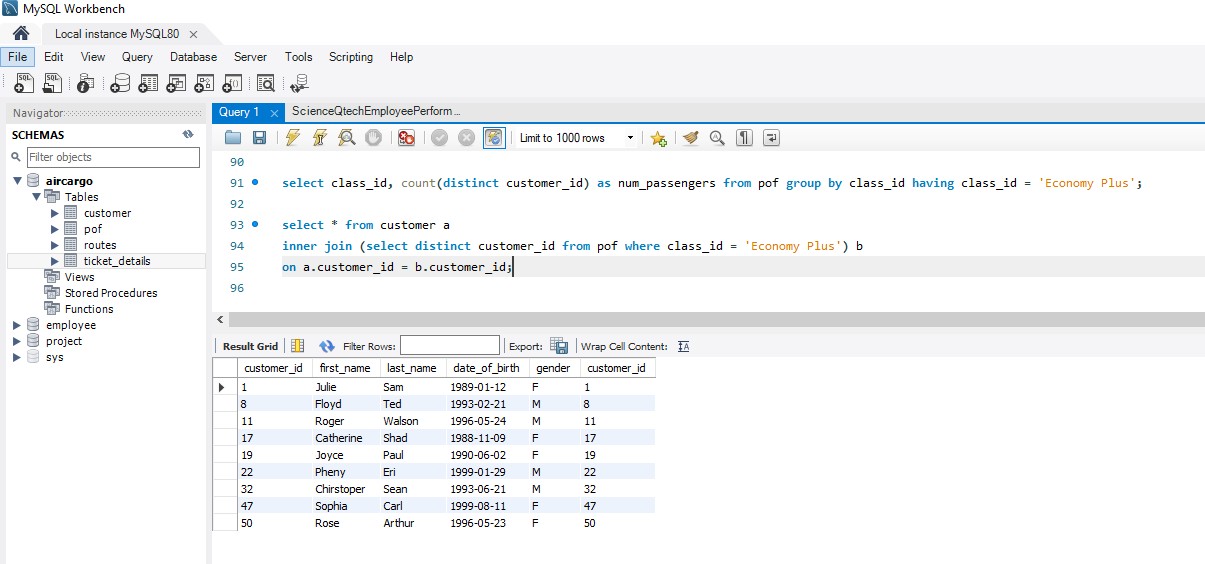
1. Write a query to extract the customers who have registered and booked a ticket. Use data from the customer and ticket\_details tables.

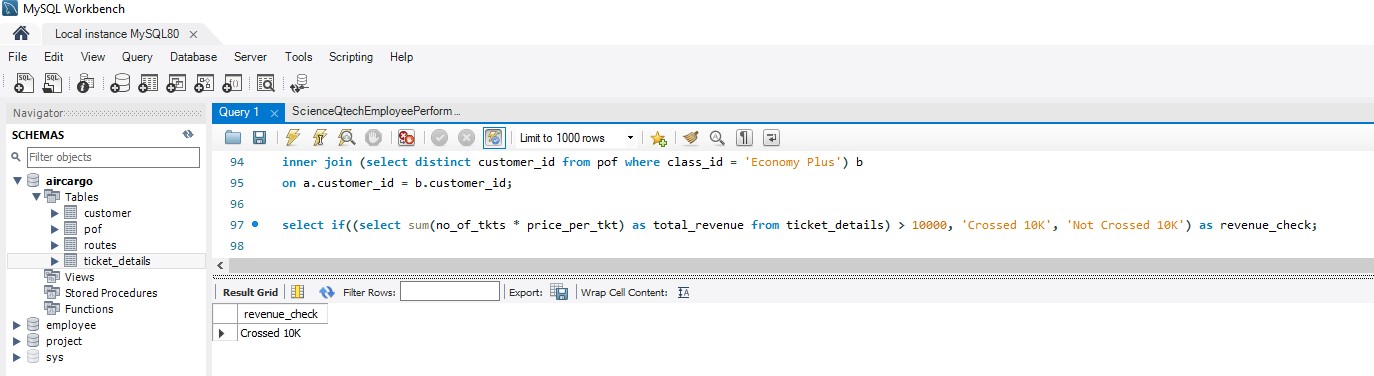
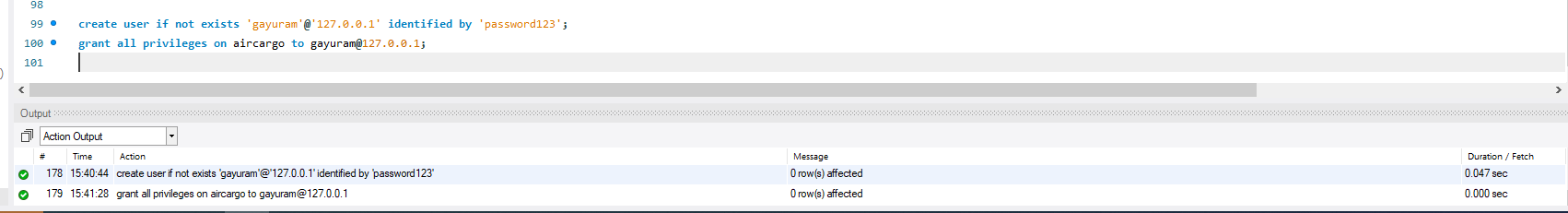
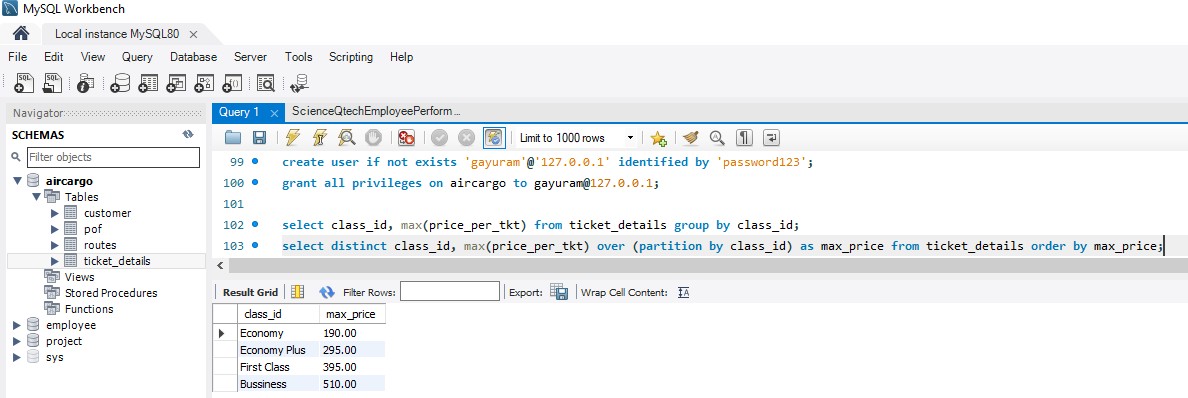


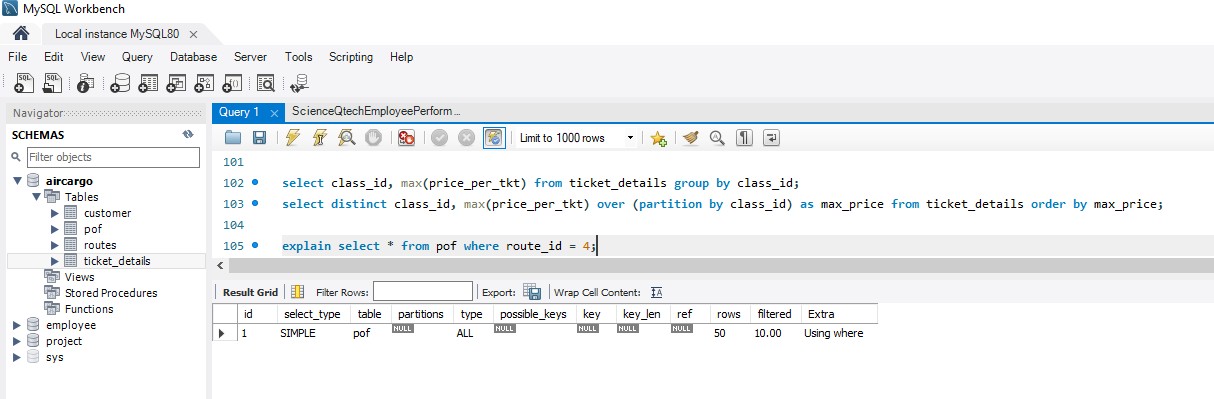
1. Write a query to identify the customer’s first name and last name based on their customer ID and brand (Emirates) from the ticket\_details table.



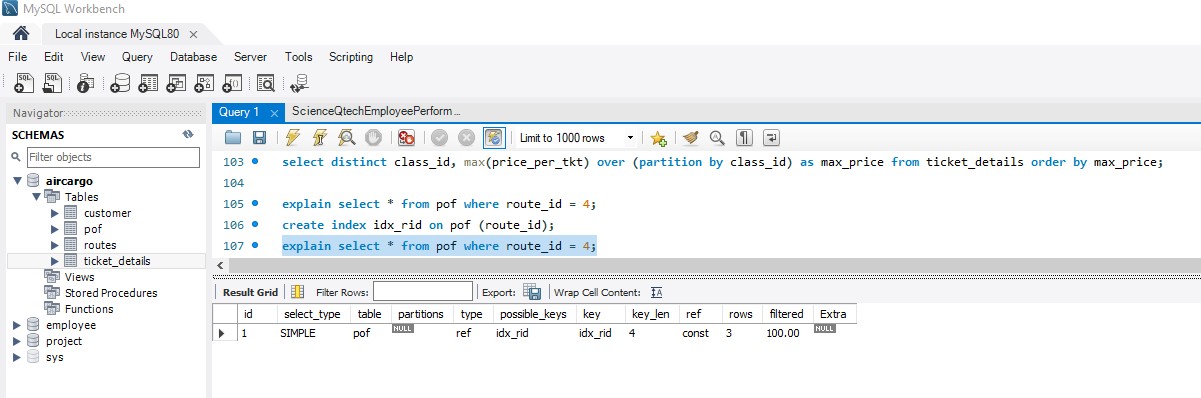
1. Write a query to identify the customers who have travelled by *Economy Plus* class using Group By and Having clause on the passengers\_on\_flights table.



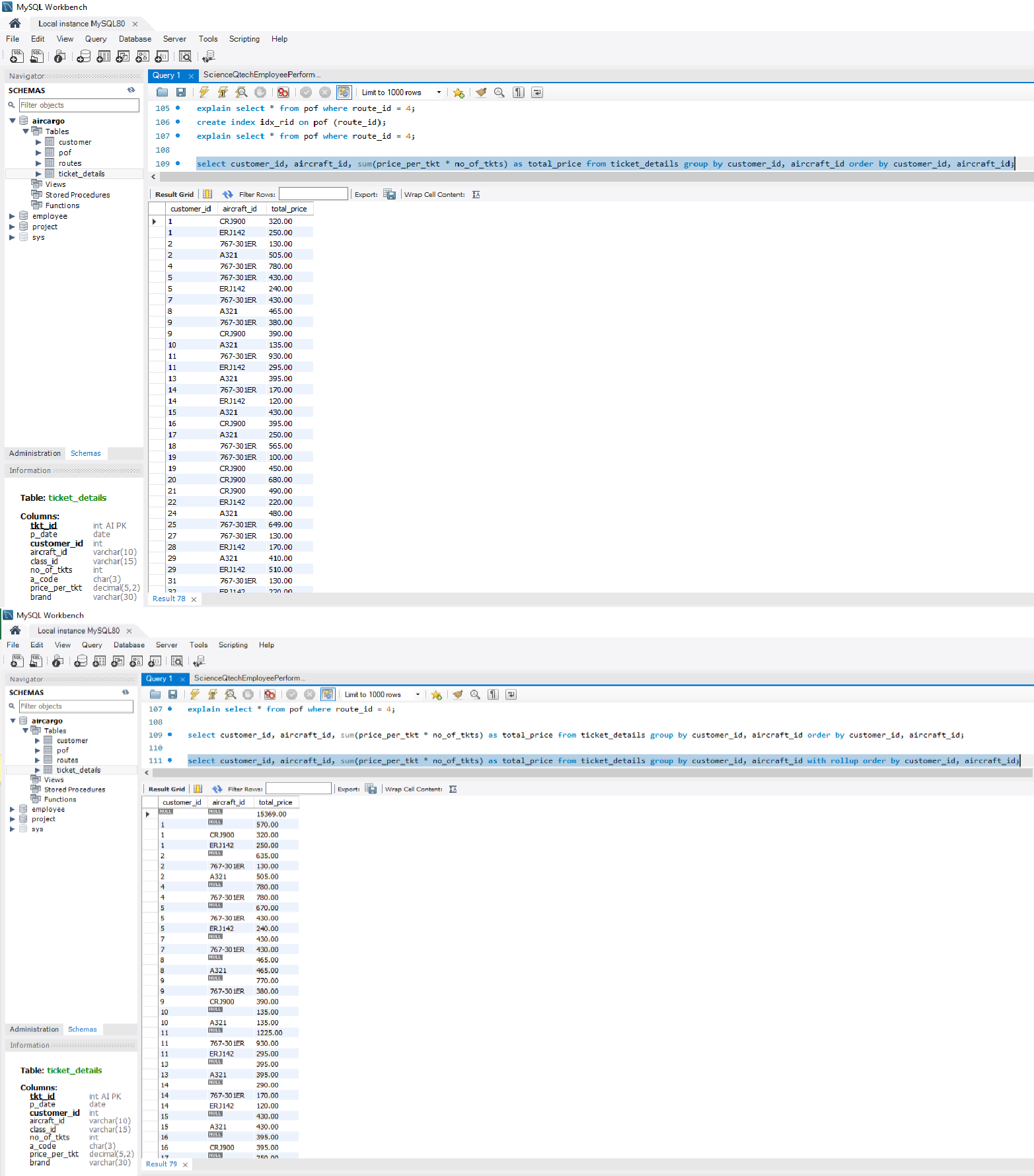
1. Write a query to identify whether the revenue has crossed 10000 using the IF clause on the ticket\_details table.
2. Write a query to create and grant access to a new user to perform operations on a database.
3. Write a query to find the maximum ticket price for each class using window functions on the ticket\_details table.
4. For the route ID 4, write a query to view the execution plan of the passengers\_on\_flights table.



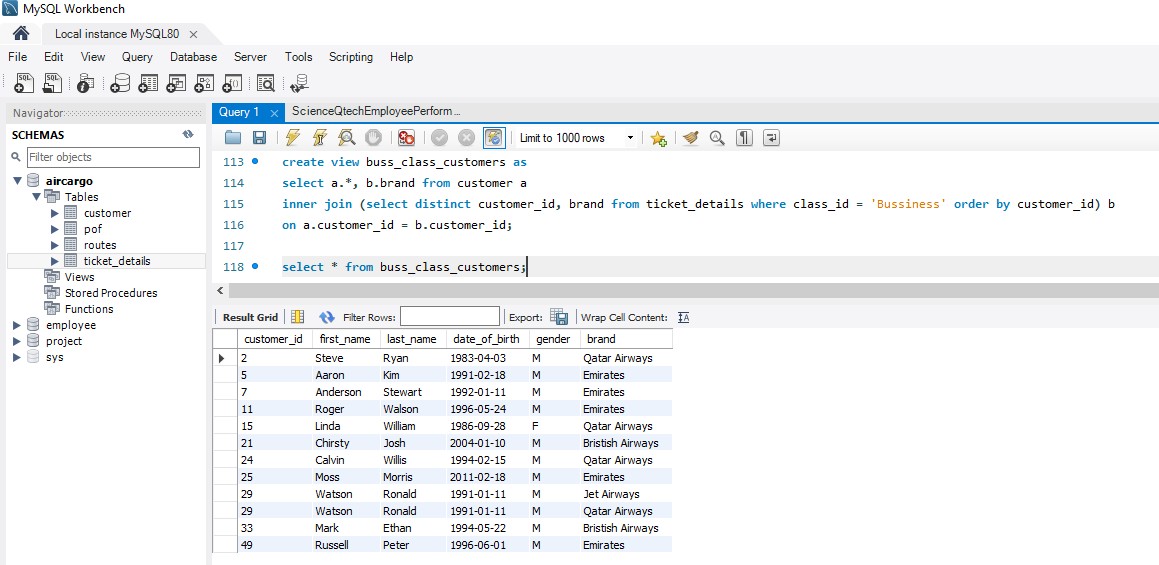
1. Write a query to extract the passengers whose route ID is 4 by improving the speed and performance of the passengers\_on\_flights table.



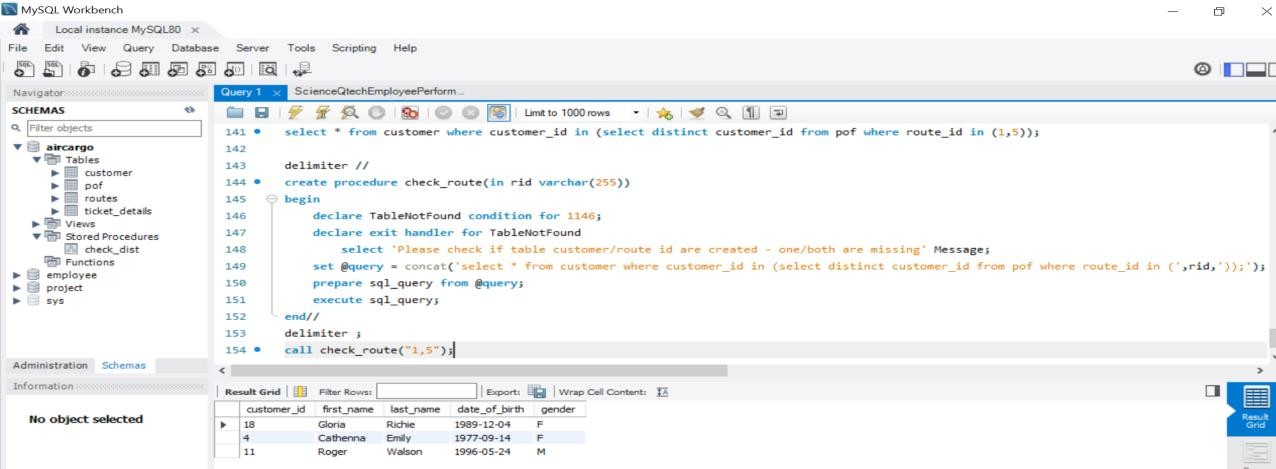
1. Write a query to calculate the total price of all tickets booked by a customer across different aircraft IDs using rollup function.



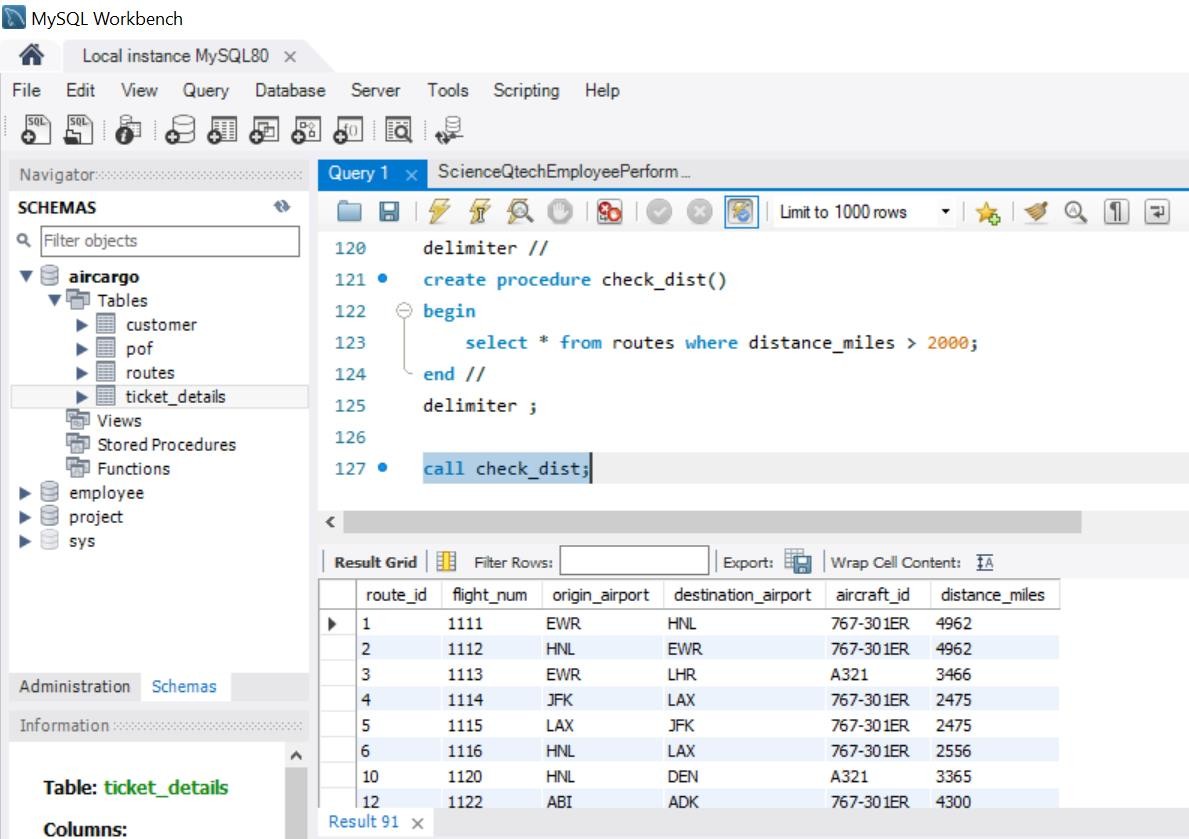
1. Write a query to create a view with only business class customers along with the brand of airlines.



1. Write a query to create a stored procedure to get the details of all passengers flying between a range of routes defined in run time. Also, return an error message if the table doesn't exist.

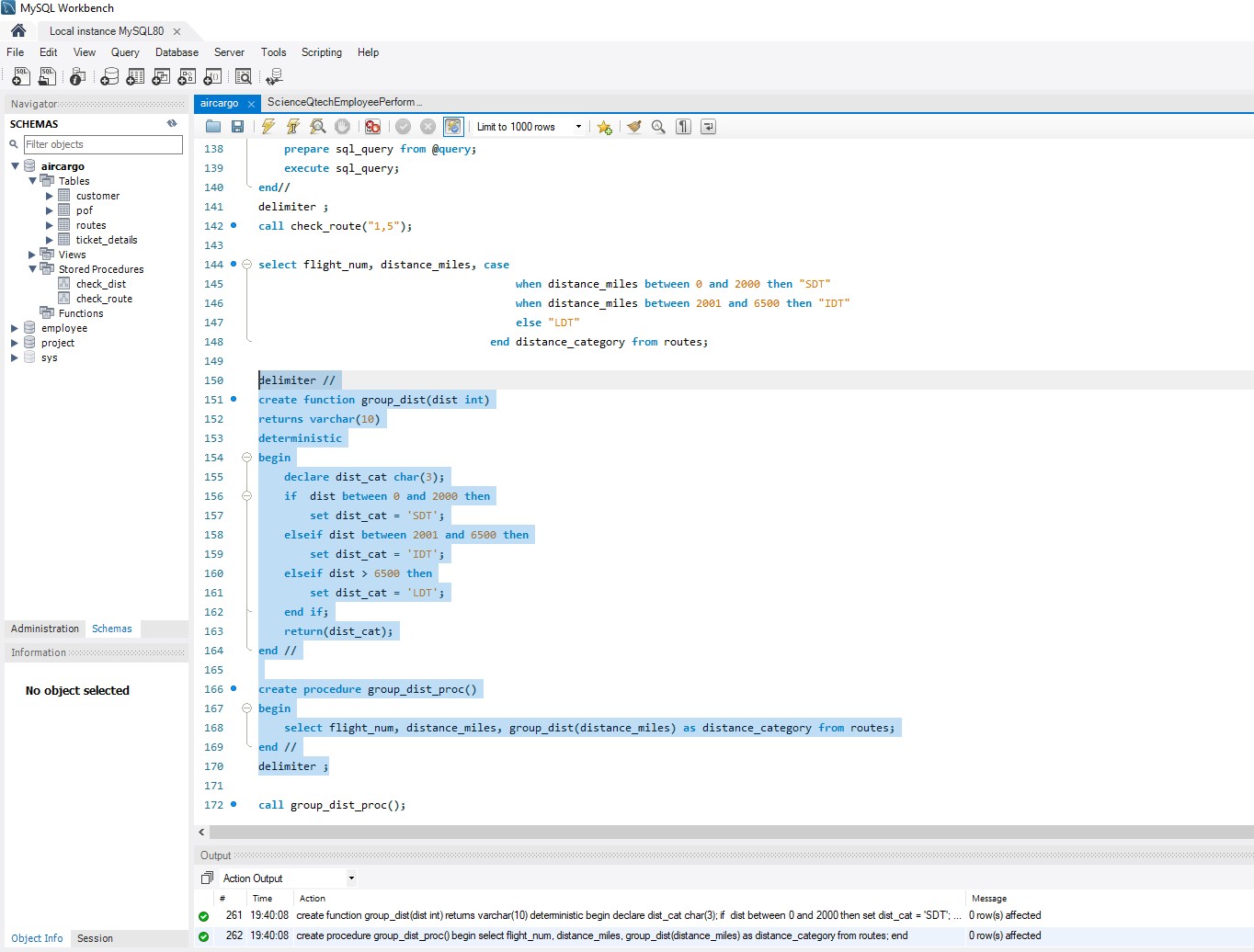
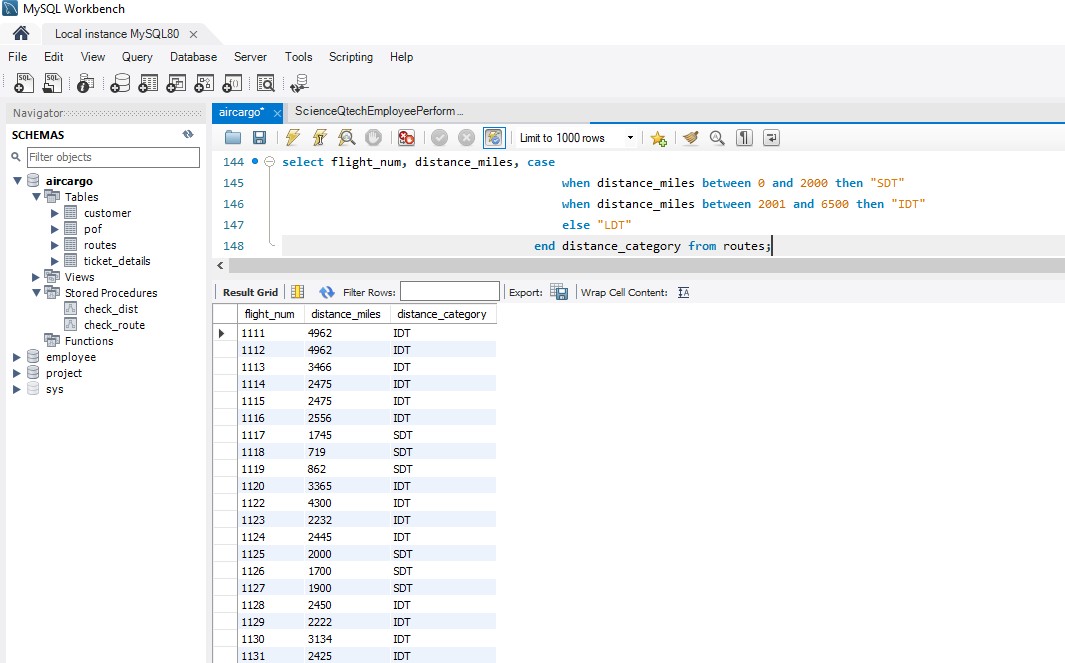


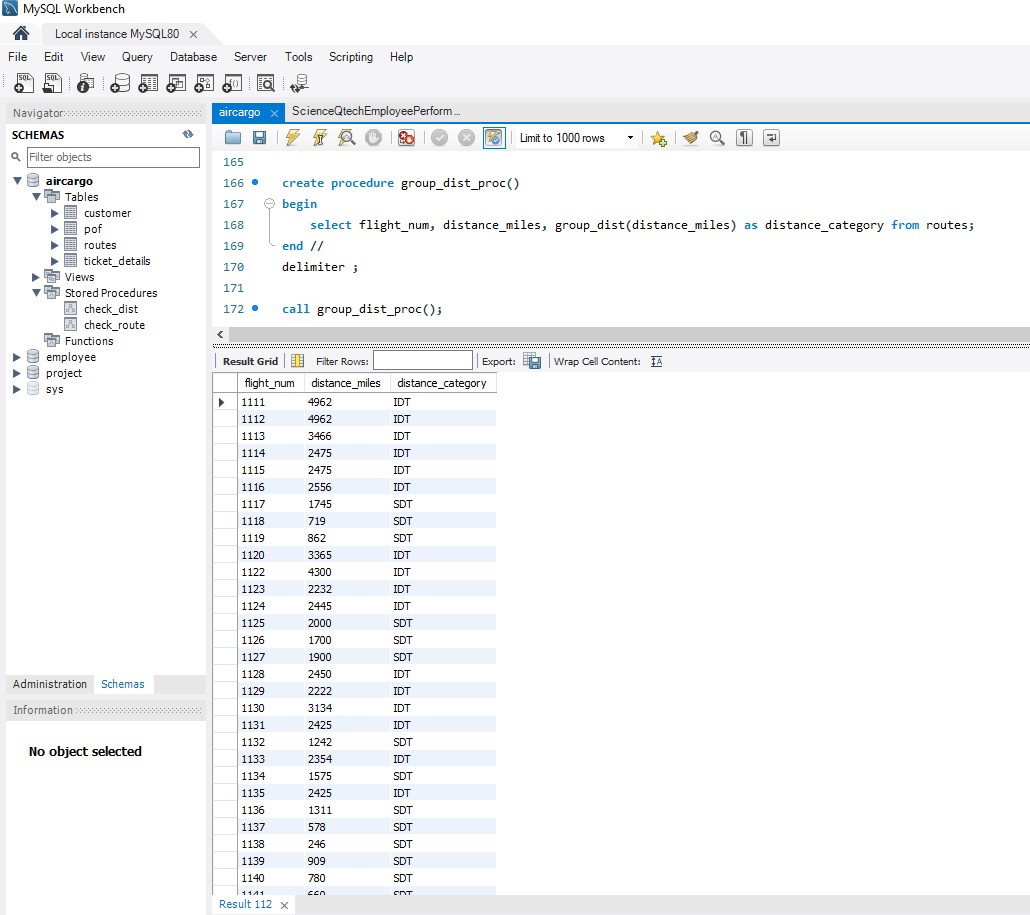
1. Write a query to create a stored procedure that extracts all the details from the routes table where the travelled distance is more than 2000 miles.



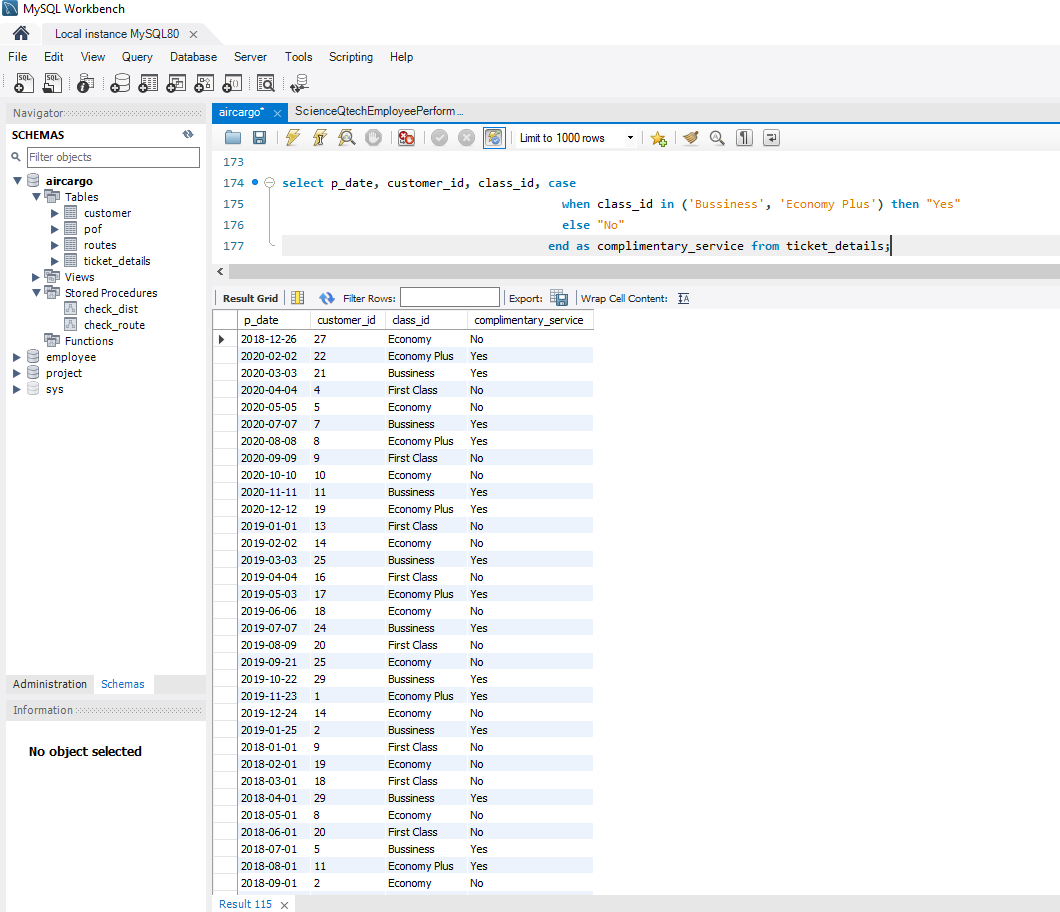
1. Write a query to create a stored procedure that groups the distance travelled by each flight into three categories. The categories are, short distance travel (SDT) for >=0 AND <= 2000 miles, intermediate distance travel (IDT) for >2000 AND <=6500, and long-distance travel (LDT) for

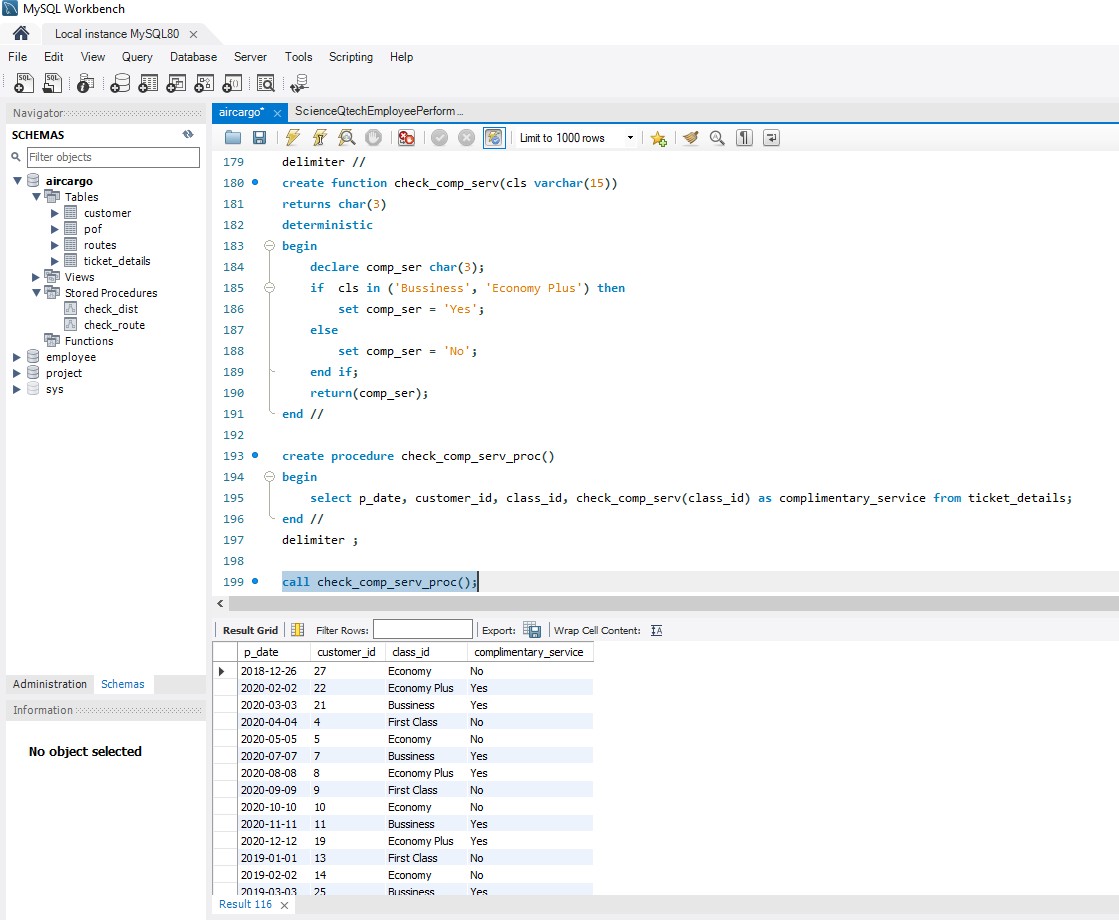
>6500.

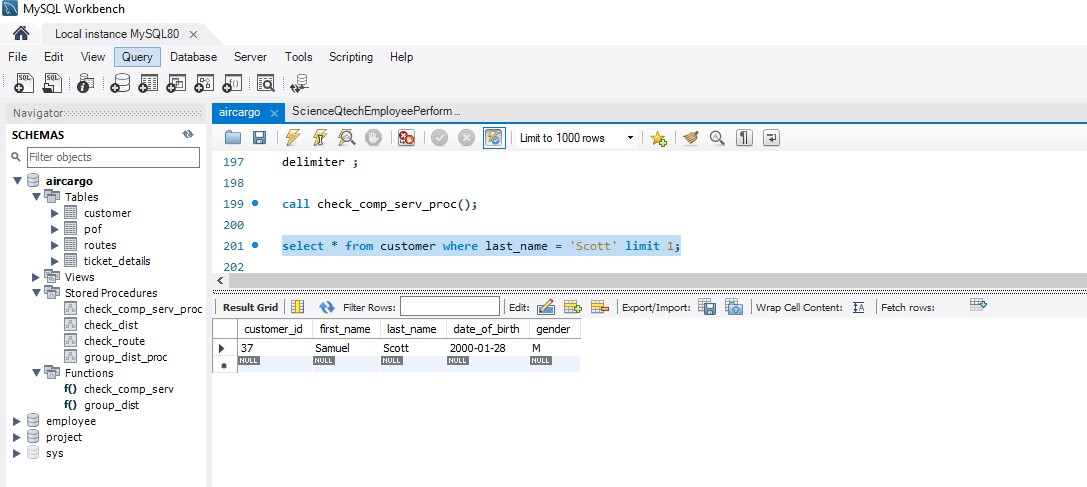


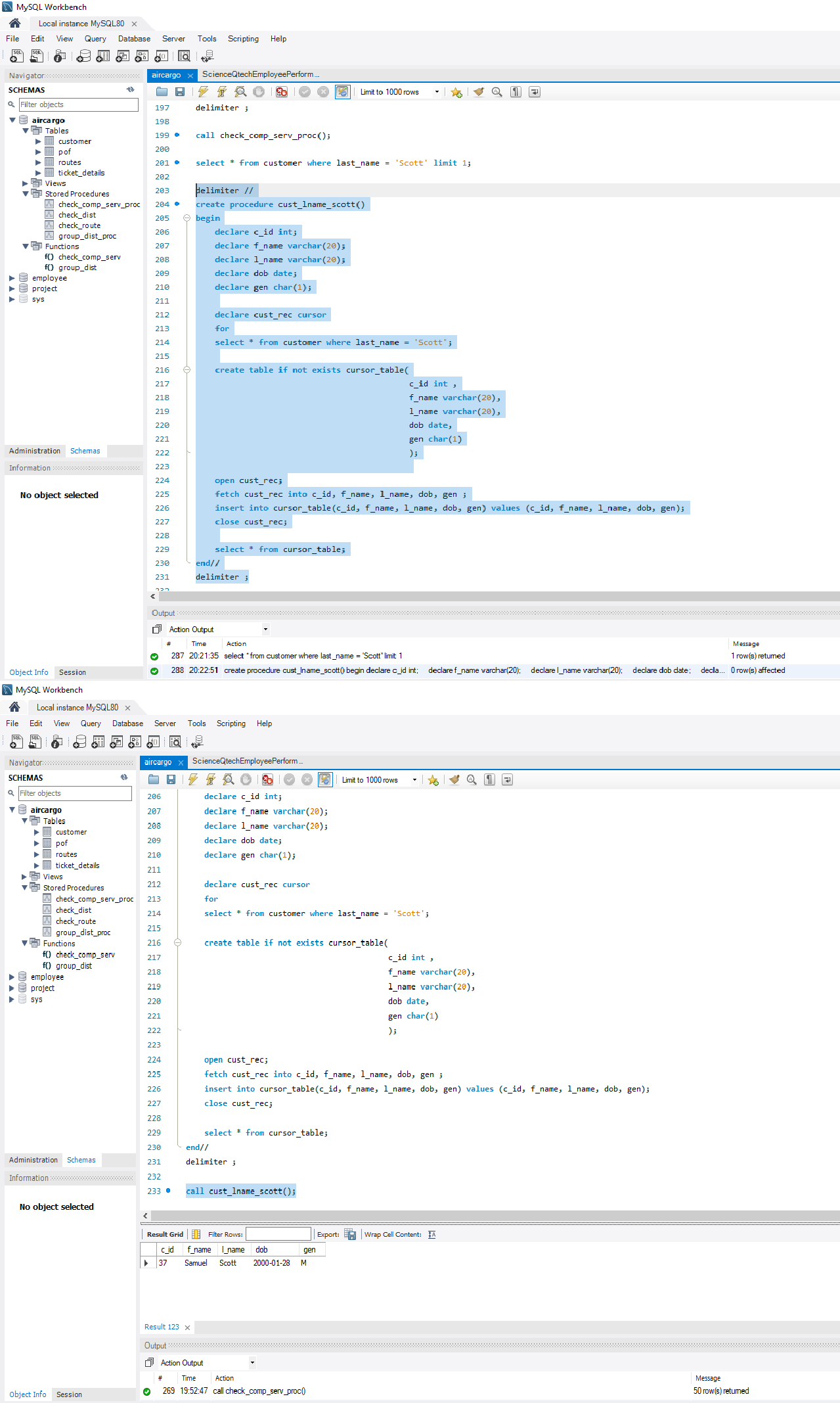


1. Write a query to extract ticket purchase date, customer ID, class ID and specify if the complimentary services are provided for the specific class using a stored function in stored procedure on the ticket\_details table. Condition: If the class is *Business* and *Economy Plus,* then complimentary services are given as *Yes,* else it is *No*

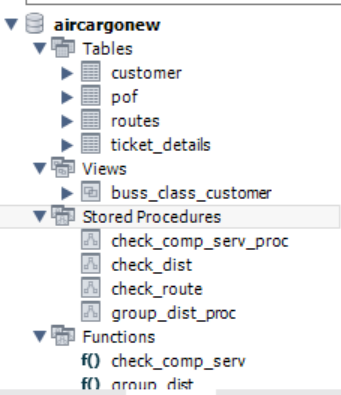




1. Write a query to extract the first record of the customer whose last name ends with Scott using a cursor from the customer table.



So, finally Schema Screen Shot is given below



Done By,

**Kaushik Prasad Dey**