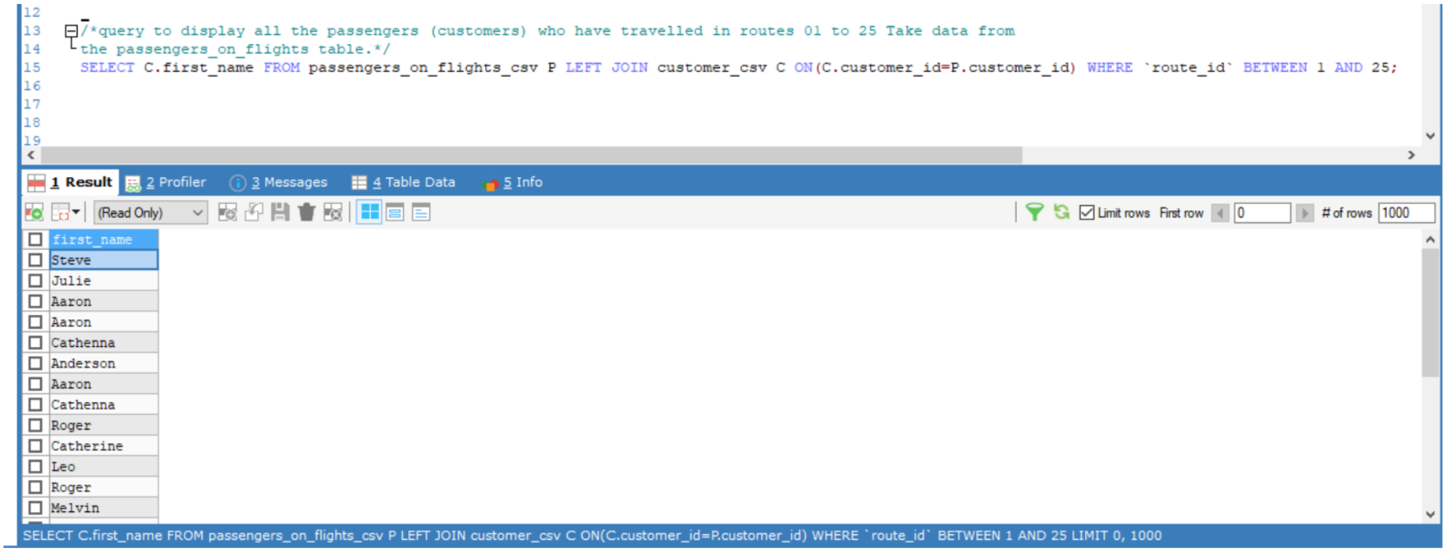
Air Cargo Analysis

1)Query to display all the passengers (customers) who have travelled in routes 01 to 25 Take data from the passengers_on_flights table.

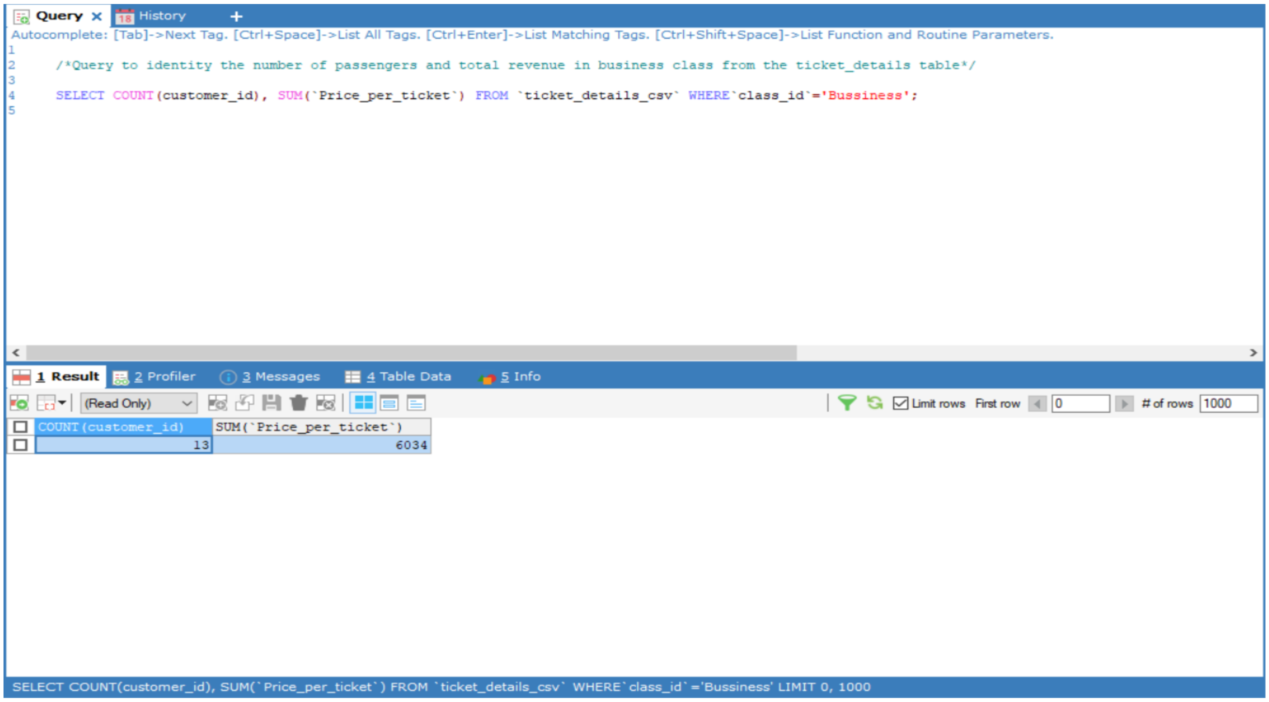


```
/*query to display all the passengers (customers) who have travelled in routes 01 to 25 Take data from
the passengers_on_flights table.*/
SELECT C.first_name FROM passengers_on_flights_csv P LEFT JOIN customer_csv C ON(C.customer_id=P.customer_id) WHERE `route_id` BETWEEN 1 AND 25;
```

first_name
Steve
Julie
Aaron
Aaron
Cathenna
Anderson
Aaron
Cathenna
Roger
Catherine
Leo
Roger
Melvin

```
SELECT C.first_name FROM passengers_on_flights_csv P LEFT JOIN customer_csv C ON(C.customer_id=P.customer_id) WHERE `route_id` BETWEEN 1 AND 25 LIMIT 0, 1000
```

2)Query to identity the number of passengers and total revenue in business class from the ticket_details table



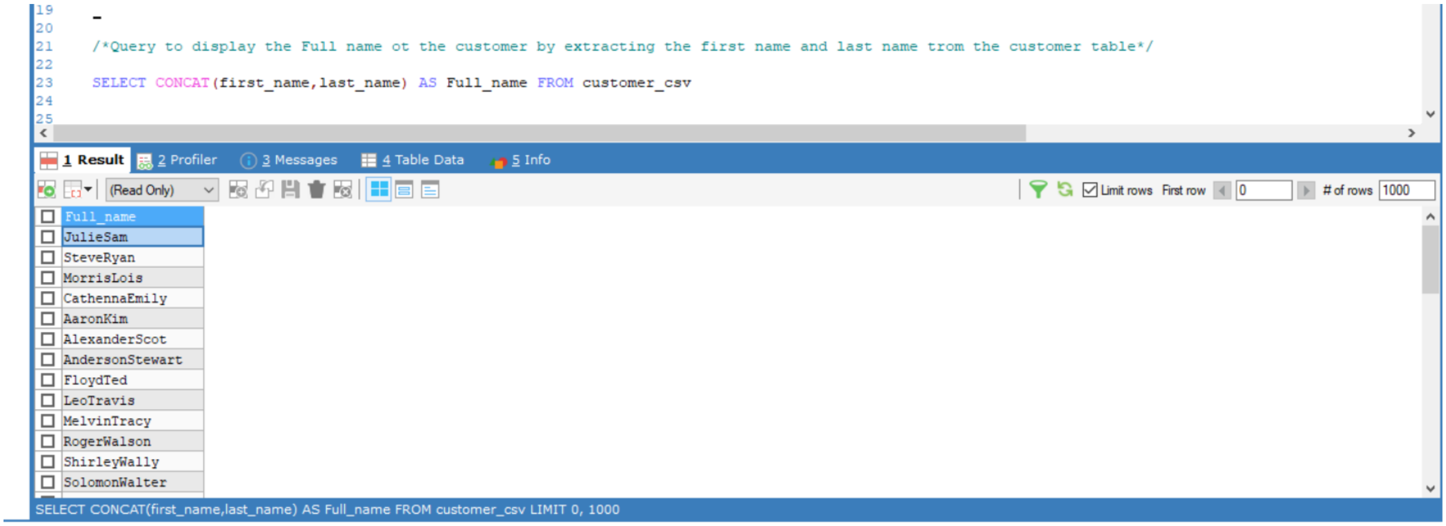
Autocomplete: [Tab]->Next Tag. [Ctrl+Space]->List All Tags. [Ctrl+Enter]->List Matching Tags. [Ctrl+Shift+Space]->List Function and Routine Parameters.

```
/*Query to identity the number of passengers and total revenue in business class from the ticket_details table*/

SELECT COUNT(customer_id), SUM(`Price_per_ticket`) FROM `ticket_details_csv` WHERE`class_id`='Bussiness';
```

COUNT(customer_id)	SUM(`Price_per_ticket`)
13	6034

```
SELECT COUNT(customer_id), SUM(`Price_per_ticket`) FROM `ticket_details_csv` WHERE`class_id`='Bussiness' LIMIT 0, 1000
```

3) Query to display the Full name ot the customer by extracting the first name and last name trom the customer table.



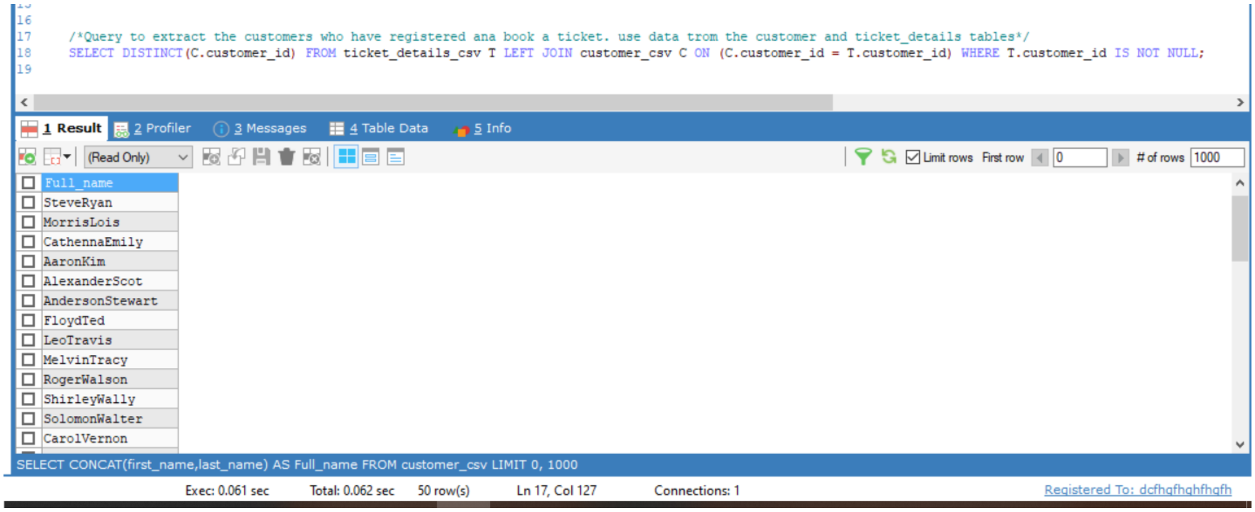
```
 -

/*Query to display the Full name ot the customer by extracting the first name and last name trom the customer table*/

SELECT CONCAT(first_name,last_name) AS Full_name FROM customer_csv
```

☑ Limit rows First row 0 # of rows 1000

Full_name
JulieSam
SteveRyan
MorrisLois
CathennaEmily
AaronKim
AlexanderScot
AndersonStewart
FloydTed
LeoTravis
MelvinTracy
RogerWalson
ShirleyWally
SolomonWalter

```
SELECT CONCAT(first_name,last_name) AS Full_name FROM customer_csv LIMIT 0, 1000
```

4) Query to extract the customers who have registered ana booked a ticket. use data from the customer and ticket_details tables.



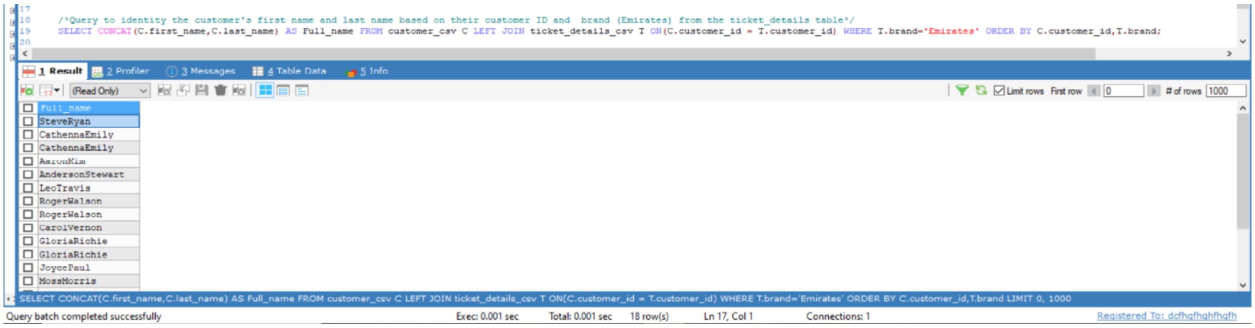
```
/*Query to extract the customers who have registered ana book a ticket. use data trom the customer and ticket_details tables*/
SELECT DISTINCT(C.customer_id) FROM ticket_details_csv T LEFT JOIN customer_csv C ON (C.customer_id = T.customer_id) WHERE T.customer_id IS NOT NULL;
```

☑ Limit rows First row 0 # of rows 1000

Full_name
SteveRyan
MorrisLois
CathennaEmily
AaronKim
AlexanderScot
AndersonStewart
FloydTed
LeoTravis
MelvinTracy
RogerWalson
ShirleyWally
SolomonWalter
CarolVernon

```
SELECT CONCAT(first_name,last_name) AS Full_name FROM customer_csv LIMIT 0, 1000
Exec: 0.061 sec    Total: 0.062 sec    50 row(s)    Ln 17, Col 127    Connections: 1    Registered To: dcfhgfhghfhgfh
```

5) Query to identity the customer's first name and last name based on their customer ID and brand (Emirates) from the ticket_details table.



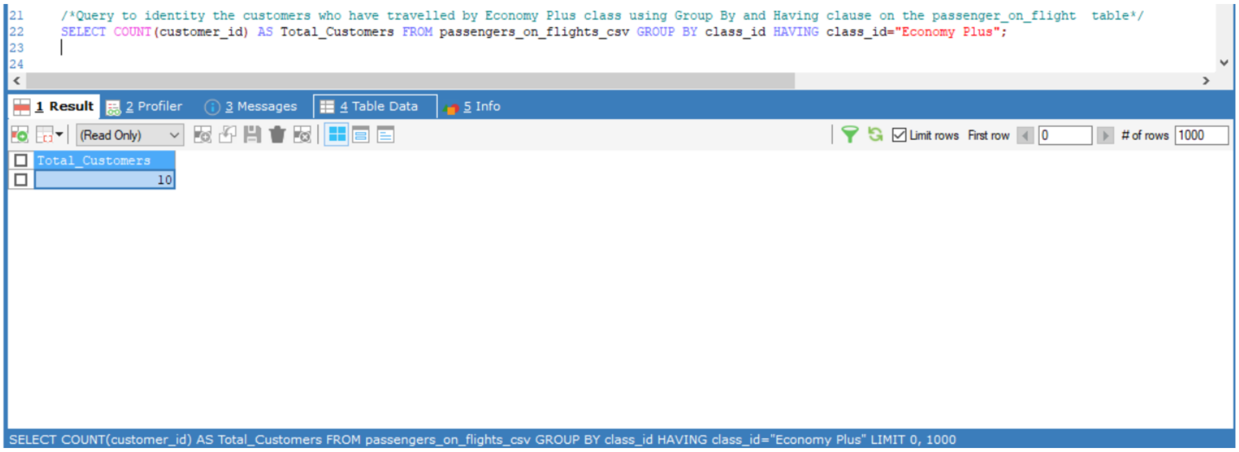
```
/*Query to identity the customer's first name and last name based on their customer ID and  brand (Emirates) from the ticket_details table*/
SELECT CONCAT(C.first_name,C.last_name) AS Full_name FROM customer_csv C LEFT JOIN ticket_details_csv T ON(C.customer_id = T.customer_id) WHERE T.brand='Emirates' ORDER BY C.customer_id,T.brand;
```

☑ Limit rows First row 0 # of rows 1000

Full_name
SteveRyan
CathennaEmily
CathennaEmily
AaronKim
AndersonStewart
LeoTravis
RogerWalson
RogerWalson
CarolVernon
GloriaRichie
GloriaRichie
JoycePaul
MossMorris

```
SELECT CONCAT(C.first_name,C.last_name) AS Full_name FROM customer_csv C LEFT JOIN ticket_details_csv T ON(C.customer_id = T.customer_id) WHERE T.brand='Emirates' ORDER BY C.customer_id,T.brand LIMIT 0, 1000
Query batch completed successfully    Exec: 0.001 sec    Total: 0.001 sec    18 row(s)    Ln 17, Col 1    Connections: 1    Registered To: dcfhgfhghfhgfh
```

6) Query to identity the customers who have travelled by Economy Plus class using Group By and Having clause on the passenger_on_flight table.

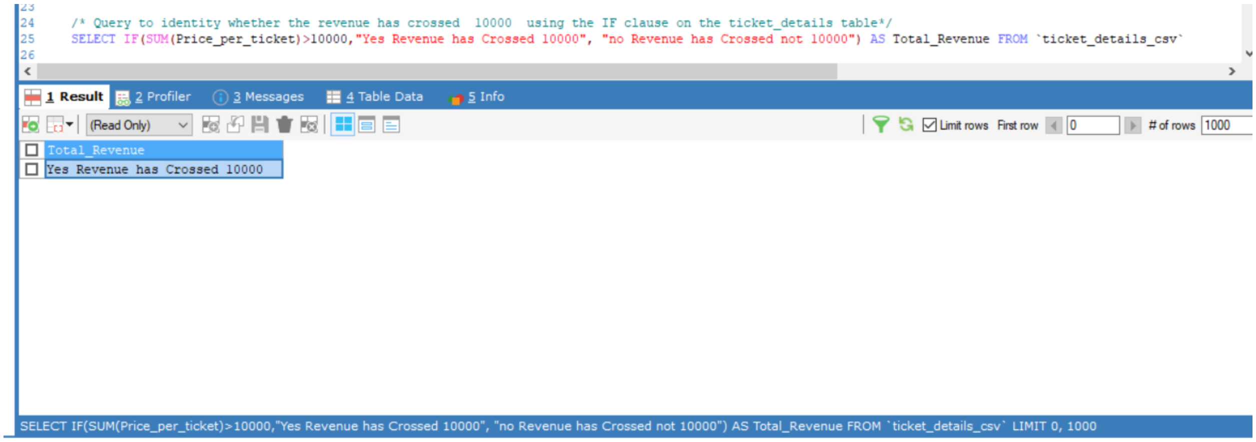


```
/*Query to identity the customers who have travelled by Economy Plus class using Group By and Having clause on the passenger_on_flight  table*/
SELECT COUNT(customer_id) AS Total_Customers FROM passengers_on_flights_csv GROUP BY class_id HAVING class_id="Economy Plus";
```

Total_Customers
10

```
SELECT COUNT(customer_id) AS Total_Customers FROM passengers_on_flights_csv GROUP BY class_id HAVING class_id="Economy Plus" LIMIT 0, 1000
```

7) Query to identity whether the revenue has crossed 10000 using the IF clause on the ticket_details table

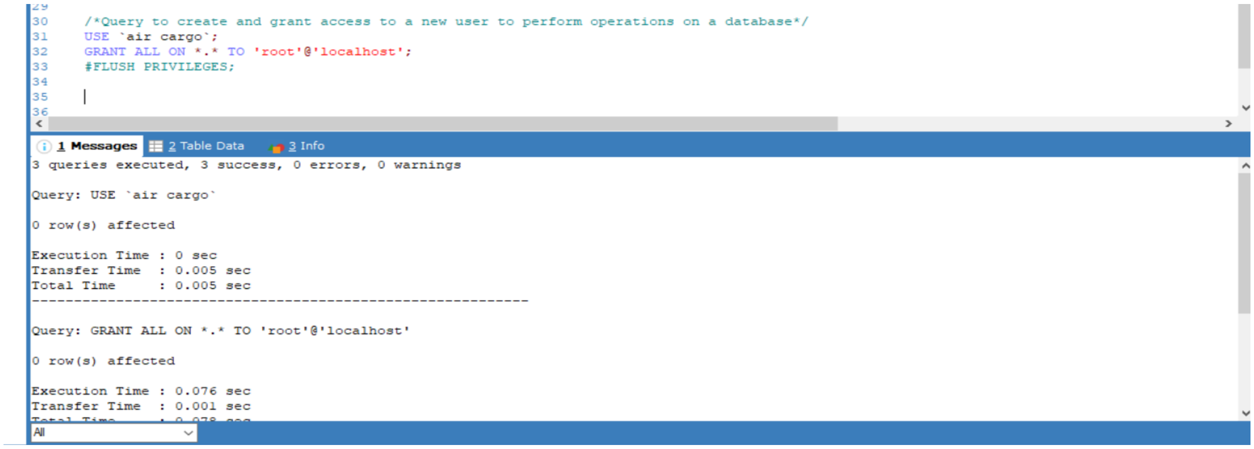


```
/* Query to identity whether the revenue has crossed  10000  using the IF clause on the ticket_details table*/
SELECT IF(SUM(Price_per_ticket)>10000,"Yes Revenue has Crossed 10000", "no Revenue has Crossed not 10000") AS Total_Revenue FROM `ticket_details_csv`
```

Total_Revenue
Yes Revenue has Crossed 10000

```
SELECT IF(SUM(Price_per_ticket)>10000,"Yes Revenue has Crossed 10000", "no Revenue has Crossed not 10000") AS Total_Revenue FROM `ticket_details_csv` LIMIT 0, 1000
```

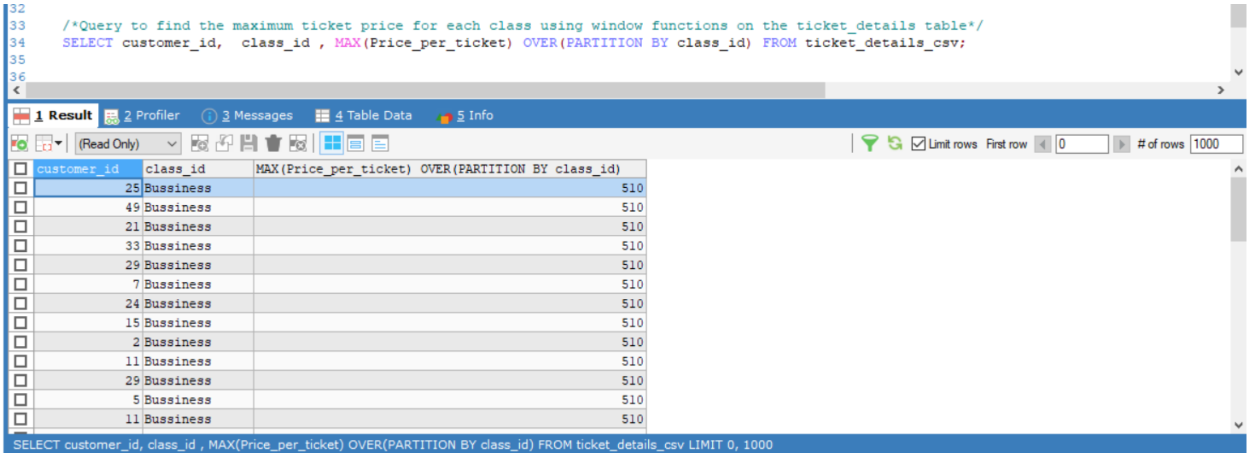
8) Query to create and grant access to a new user to perform operations on a database.



```
/*Query to create and grant access to a new user to perform operations on a database*/
USE `air cargo`;
GRANT ALL ON *.* TO 'root'@'localhost';
#FLUSH PRIVILEGES;
```

```
3 queries executed, 3 success, 0 errors, 0 warnings

Query: USE `air cargo`

0 row(s) affected

Execution Time : 0 sec
Transfer Time  : 0.005 sec
Total Time     : 0.005 sec
-----------------------------------------------------------

Query: GRANT ALL ON *.* TO 'root'@'localhost'

0 row(s) affected

Execution Time : 0.076 sec
Transfer Time  : 0.001 sec
Total Time     : 0.078 sec
```

9) Query to find the maximum ticket price for each class using window functions on the ticket_details table.

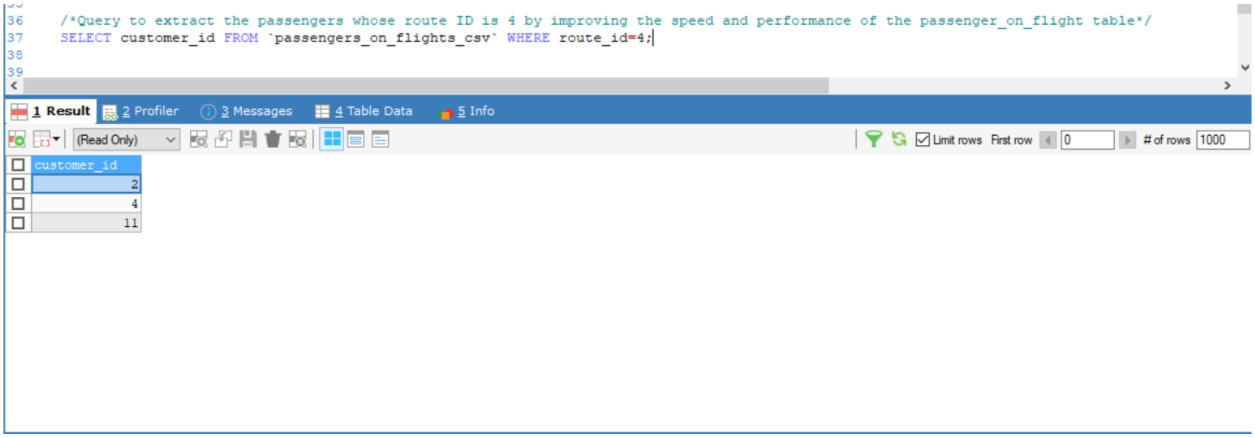


```
/*Query to find the maximum ticket price for each class using window functions on the ticket_details table*/
SELECT customer_id,  class_id , MAX(Price_per_ticket) OVER(PARTITION BY class_id) FROM ticket_details_csv;
```

customer_id	class_id	MAX(Price_per_ticket) OVER(PARTITION BY class_id)
25	Bussiness	510
49	Bussiness	510
21	Bussiness	510
33	Bussiness	510
29	Bussiness	510
7	Bussiness	510
24	Bussiness	510
15	Bussiness	510
2	Bussiness	510
11	Bussiness	510
29	Bussiness	510
5	Bussiness	510
11	Bussiness	510

SELECT customer_id, class_id , MAX(Price_per_ticket) OVER(PARTITION BY class_id) FROM ticket_details_csv LIMIT 0, 1000

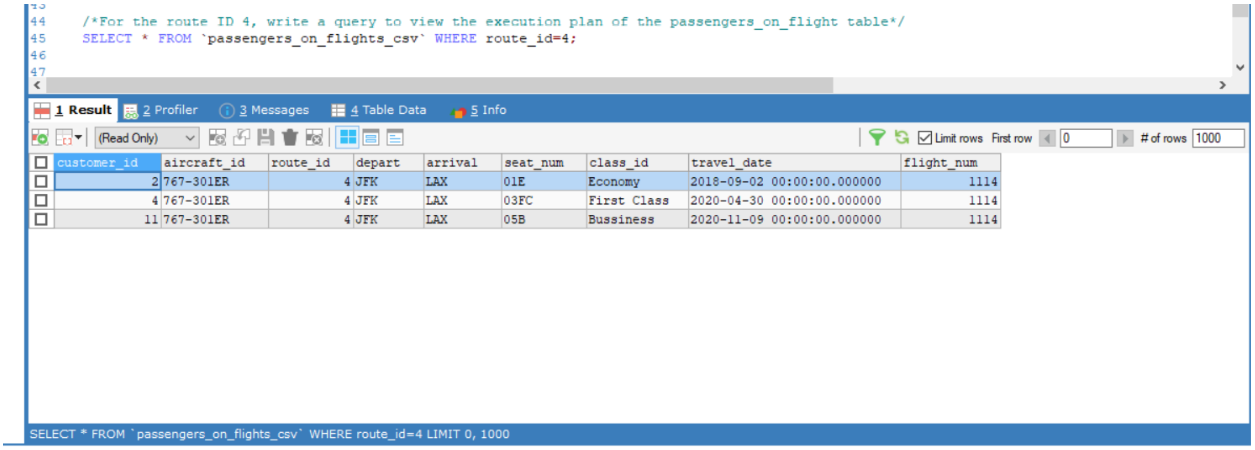
10) Query to extract the passengers whose route ID is 4 by improving the speed and performance of the passengers_on_flight table.



```
/*Query to extract the passengers whose route ID is 4 by improving the speed and performance of the passenger_on_flight table*/
SELECT customer_id FROM `passengers_on_flights_csv` WHERE route_id=4;
```

customer_id
2
4
11

11) For the route ID 4, write a query to view the execution plan of the passengers_on_flight table

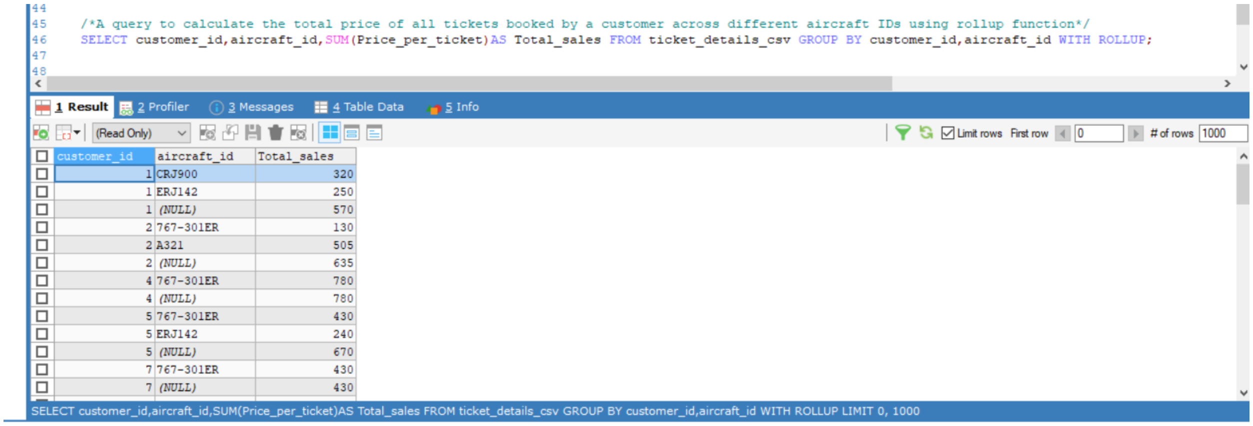


```
/*For the route ID 4, write a query to view the execution plan of the passengers_on_flight table*/
SELECT * FROM `passengers_on_flights_csv` WHERE route_id=4;
```

customer_id	aircraft_id	route_id	depart	arrival	seat_num	class_id	travel_date	flight_num
2	767-301ER	4	JFK	LAX	01E	Economy	2018-09-02 00:00:00.000000	1114
4	767-301ER	4	JFK	LAX	03FC	First Class	2020-04-30 00:00:00.000000	1114
11	767-301ER	4	JFK	LAX	05B	Bussiness	2020-11-09 00:00:00.000000	1114

SELECT * FROM `passengers_on_flights_csv` WHERE route_id=4 LIMIT 0, 1000

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

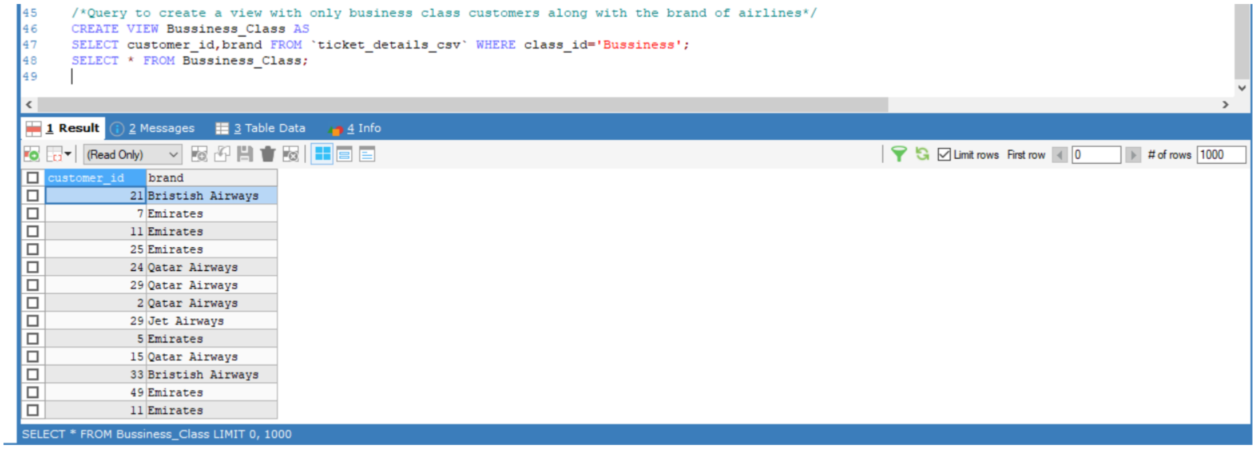


```sql
/*A query to calculate the total price of all tickets booked by a customer across different aircraft IDs using rollup function*/
SELECT customer_id,aircraft_id,SUM(Price_per_ticket)AS Total_sales FROM ticket_details_csv GROUP BY customer_id,aircraft_id WITH ROLLUP;
```

customer_id	aircraft_id	Total_sales
1	CRJ900	320
1	ERJ142	250
1	(NULL)	570
2	767-301ER	130
2	A321	505
2	(NULL)	635
4	767-301ER	780
4	(NULL)	780
5	767-301ER	430
5	ERJ142	240
5	(NULL)	670
7	767-301ER	430
7	(NULL)	430

```
SELECT customer_id,aircraft_id,SUM(Price_per_ticket)AS Total_sales FROM ticket_details_csv GROUP BY customer_id,aircraft_id WITH ROLLUP LIMIT 0, 1000
```

13) Query to create a view with only business class customers along with the brand of airlines.



```sql
/*Query to create a view with only business class customers along with the brand of airlines*/
CREATE VIEW Bussiness_Class AS
SELECT customer_id,brand FROM `ticket_details_csv` WHERE class_id='Bussiness';
SELECT * FROM Bussiness_Class;
```

customer_id	brand
21	Bristish Airways
7	Emirates
11	Emirates
25	Emirates
24	Qatar Airways
29	Qatar Airways
2	Qatar Airways
29	Jet Airways
5	Emirates
15	Qatar Airways
33	Bristish Airways
49	Emirates
11	Emirates

```
SELECT * FROM Bussiness_Class LIMIT 0, 1000
```

Here, the given data was in Excel, so we imported that to SQL and created a database and analyzed and wrote queries for some of the various specific information from which Air Cargo can get clear insights of their company.