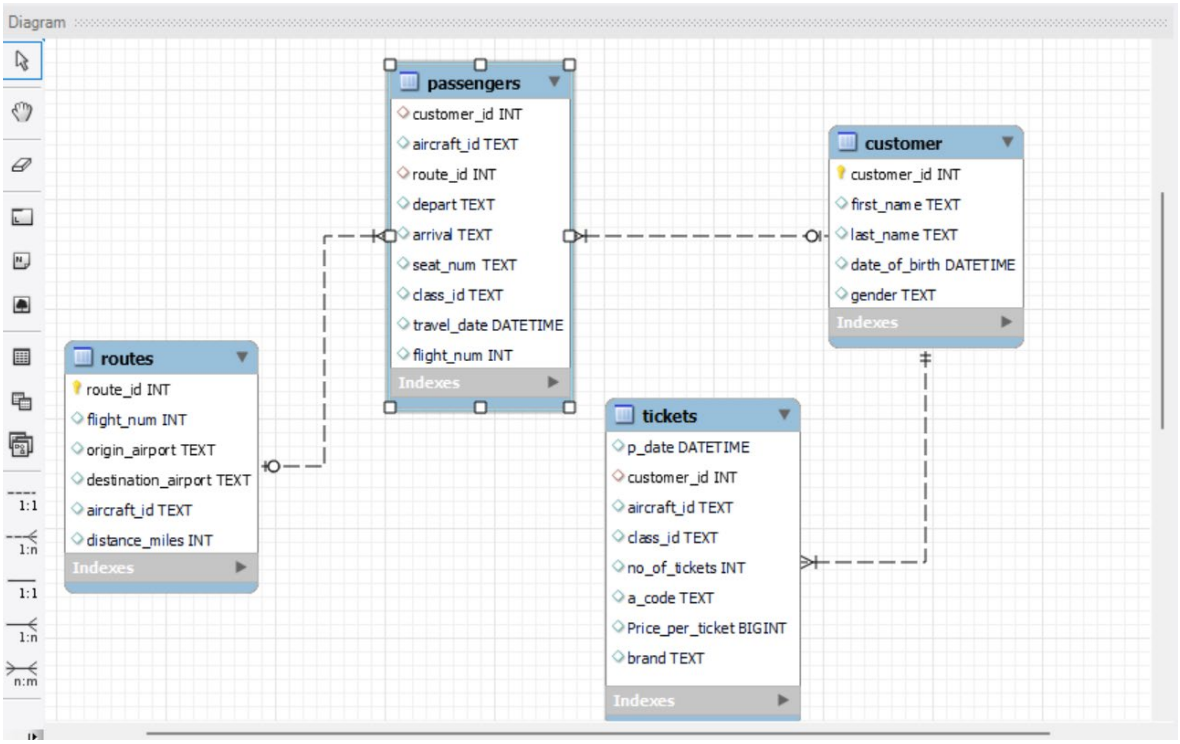
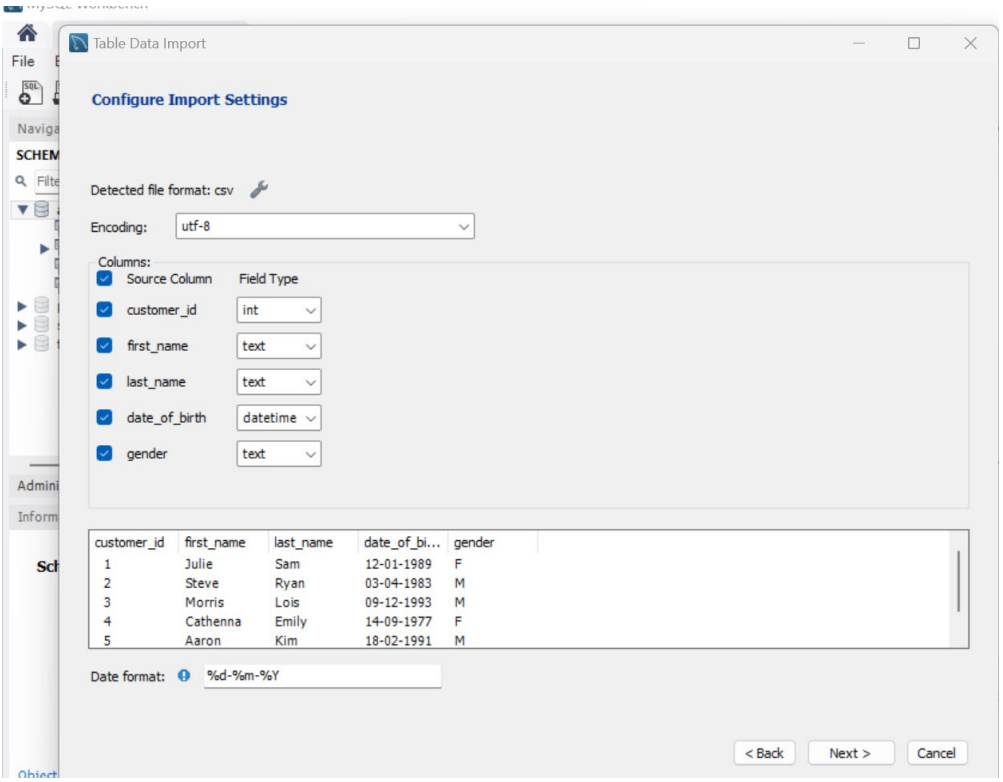
Q1. ER Diagram

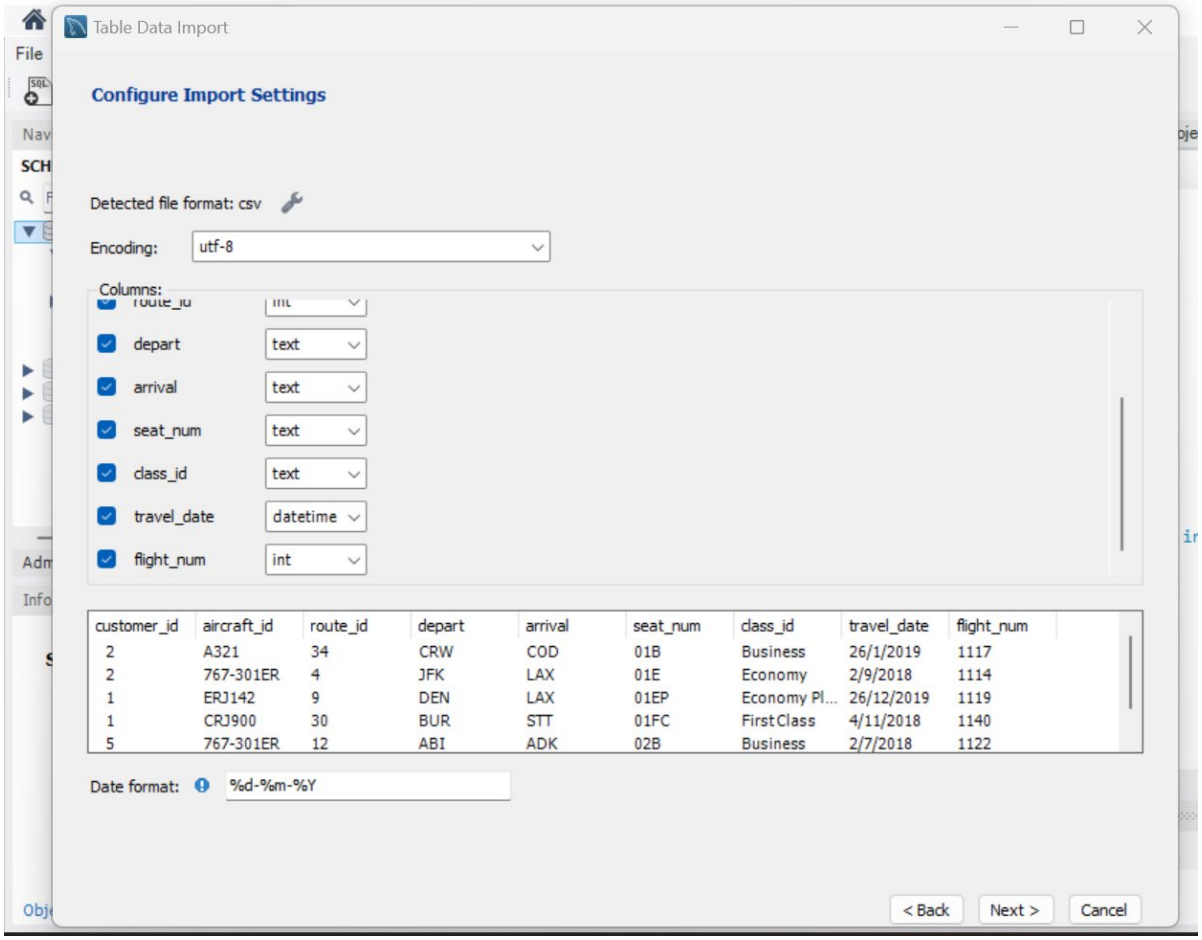


Q2. We were advised to not to create a new table for this. Hence altered the existing table to add constraints.

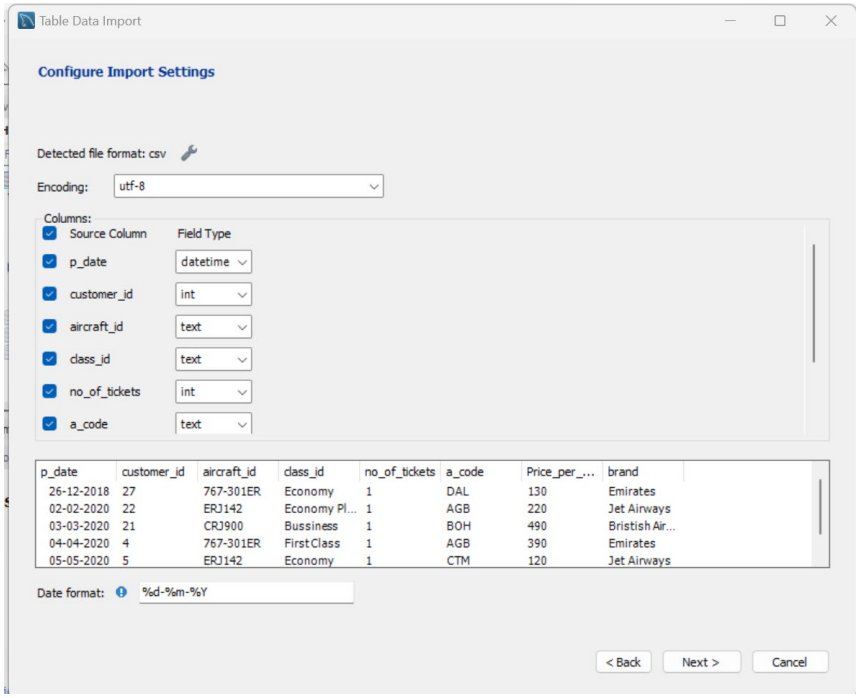
Did this using both “table data import” wizard and using MYSQL querries. Using the wizard , for the Customer data set- data type changed for date_of_birth as below.



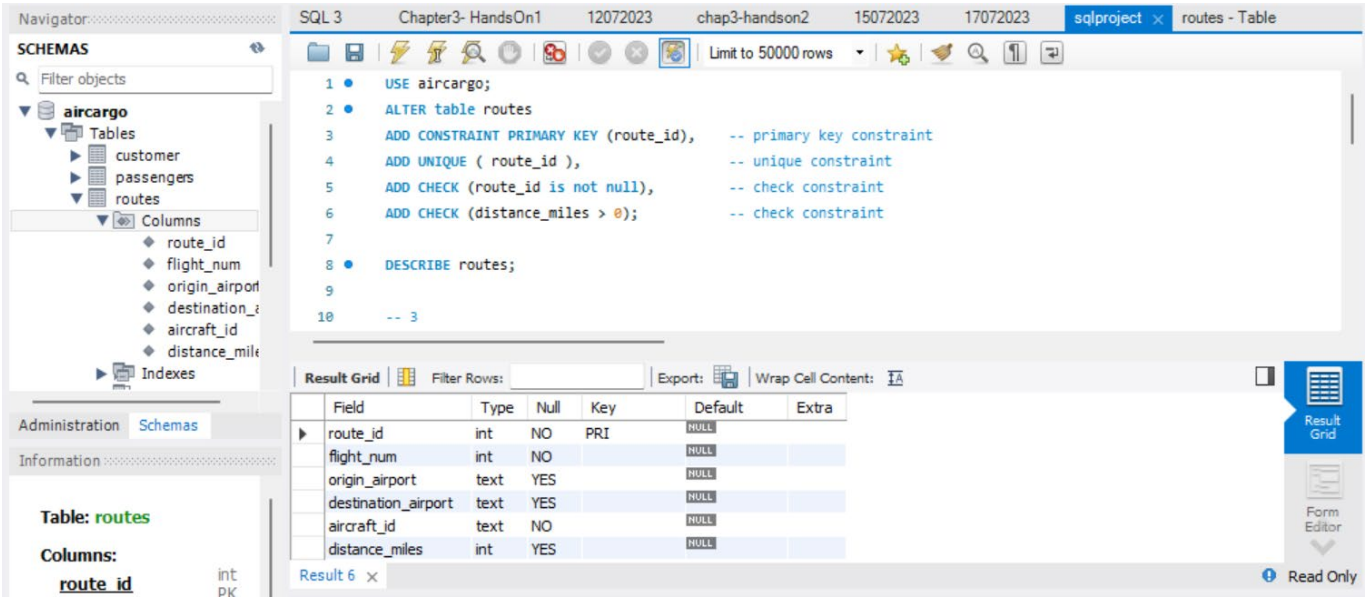
Passenger's details table-travel date data type changed as below.



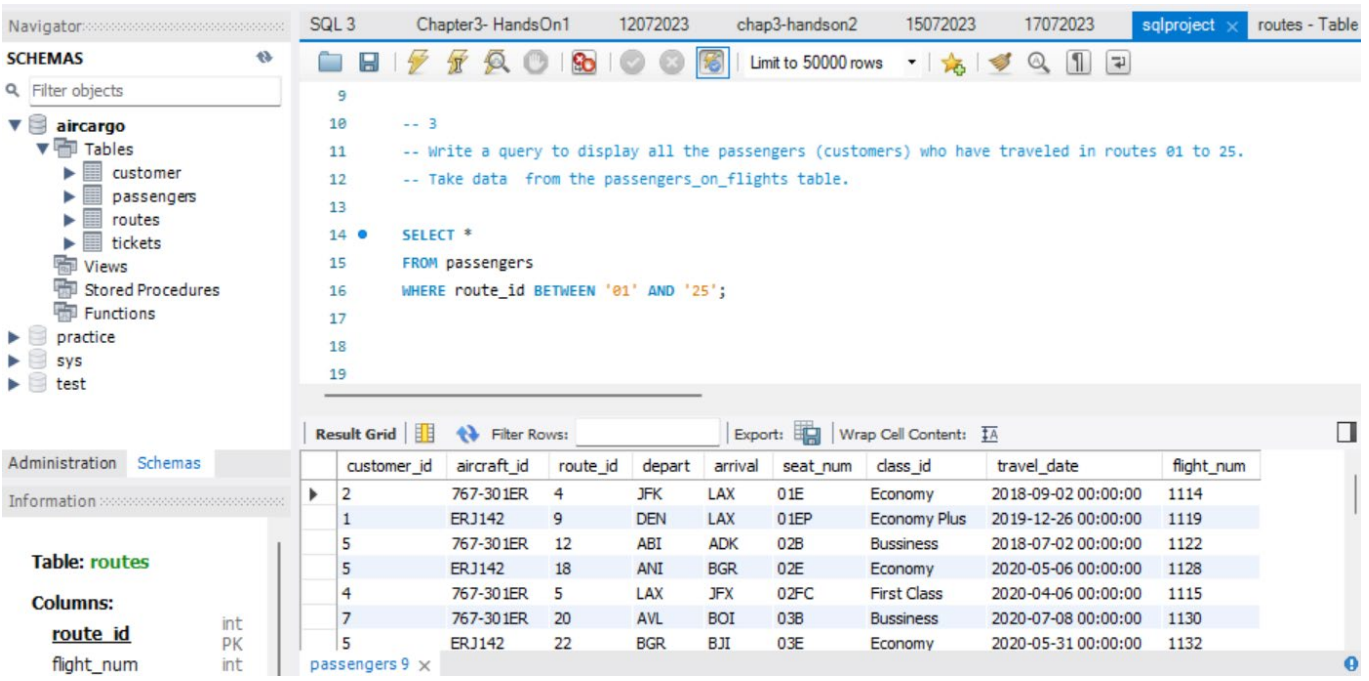
For tickets_details data set- changed the P-date data type as date_time below



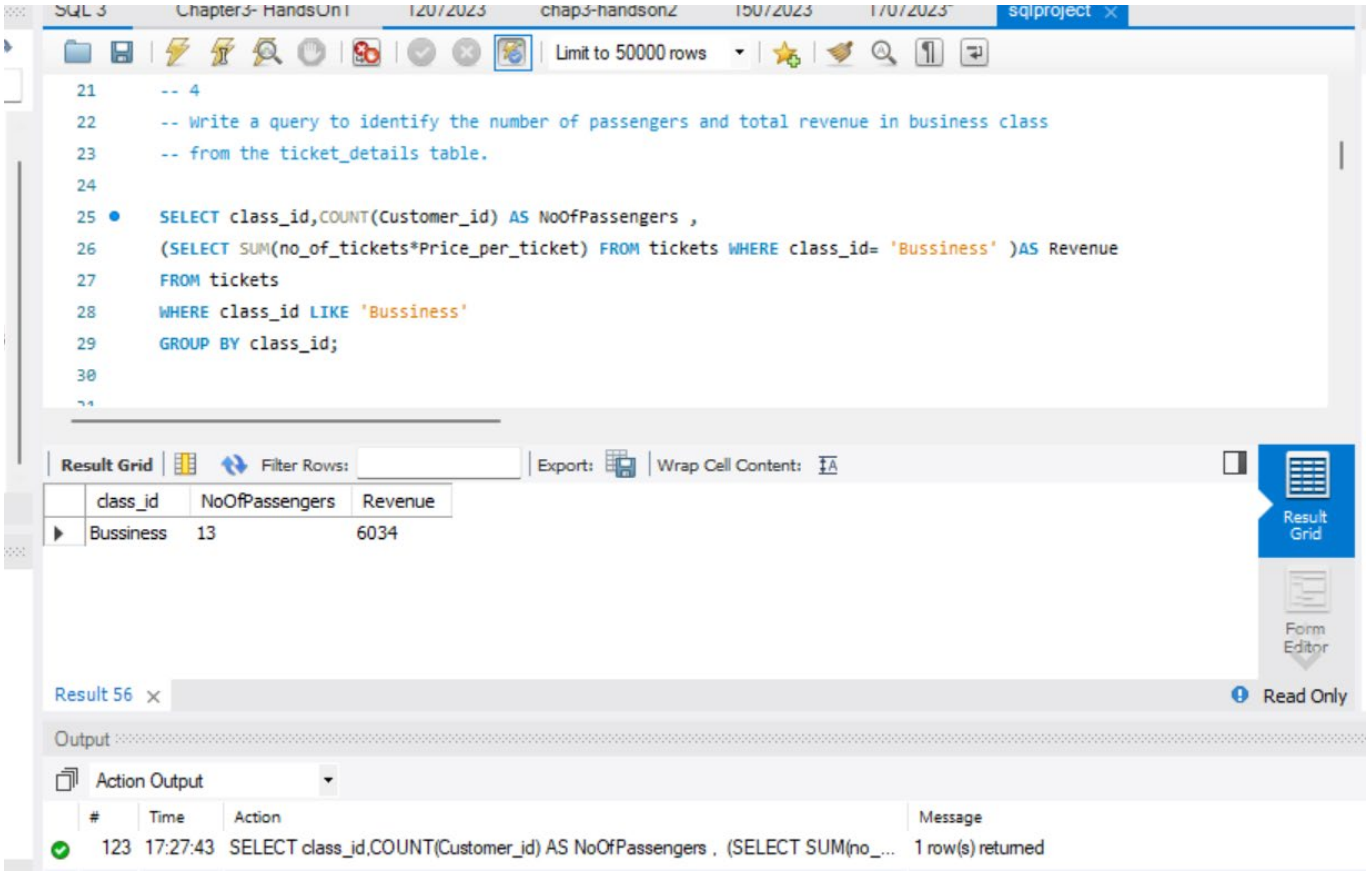
Then used SQL query as below to do add further constraints.



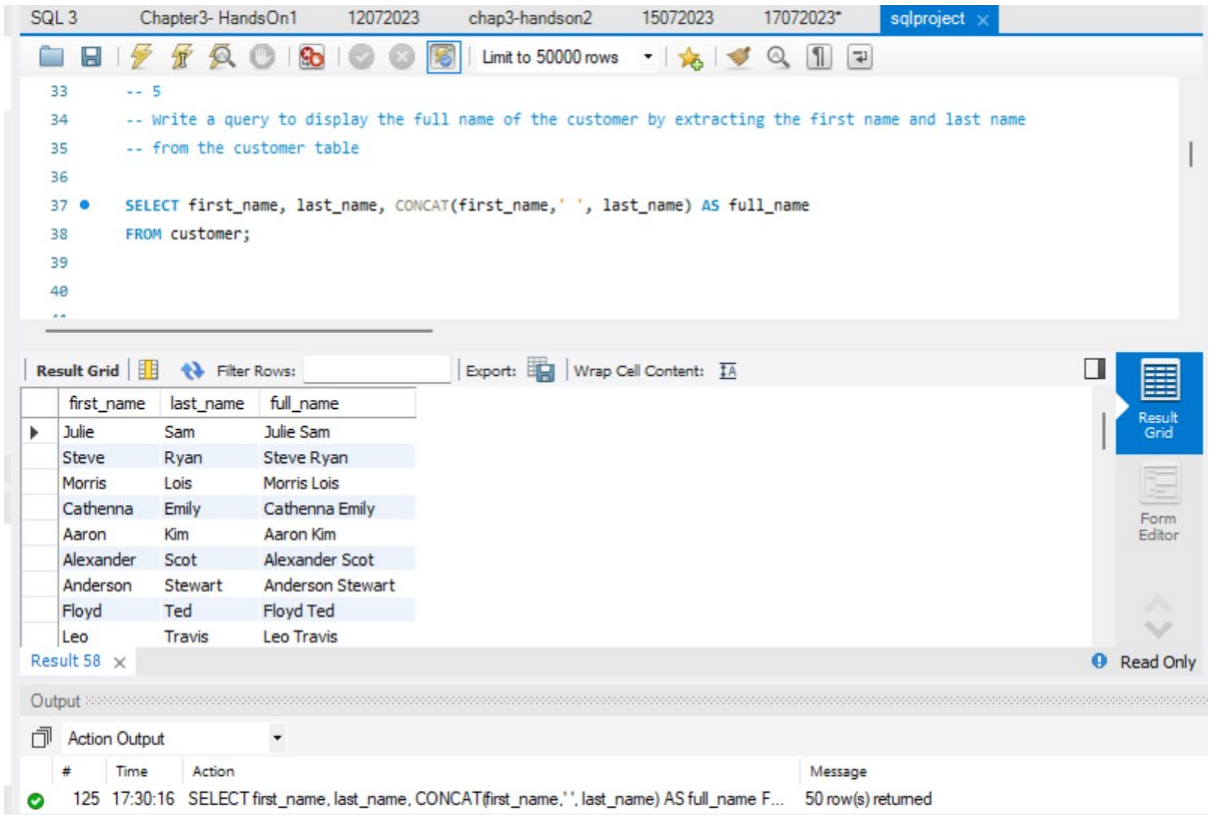
Q3.



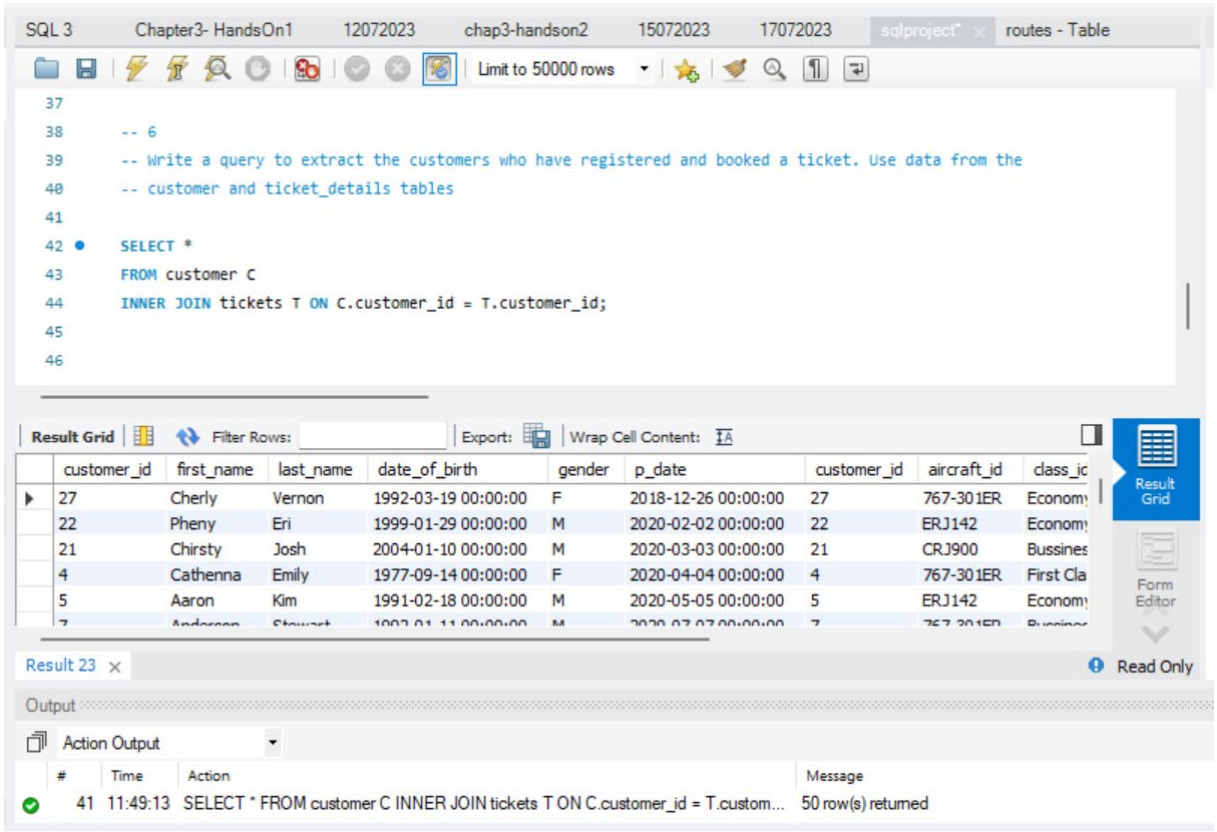
Q4.


SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023
sqlproject
Limit to 50000 rows
-- 4
-- Write a query to identify the number of passengers and total revenue in business class
-- from the ticket_details table.
SELECT class_id,COUNT(Customer_id) AS NoOfPassengers ,
(SELECT SUM(no_of_tickets*Price_per_ticket) FROM tickets WHERE class_id= 'Bussiness')AS Revenue
FROM tickets
WHERE class_id LIKE 'Bussiness'
GROUP BY class_id;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
class_id
NoOfPassengers
Revenue
Bussiness
13
6034
Result Grid
Form Editor
Result 56
Read Only
Output
Action Output
Time Action Message
123 17:27:43 SELECT class_id,COUNT(Customer_id) AS NoOfPassengers , (SELECT SUM(no_... 1 row(s) returned

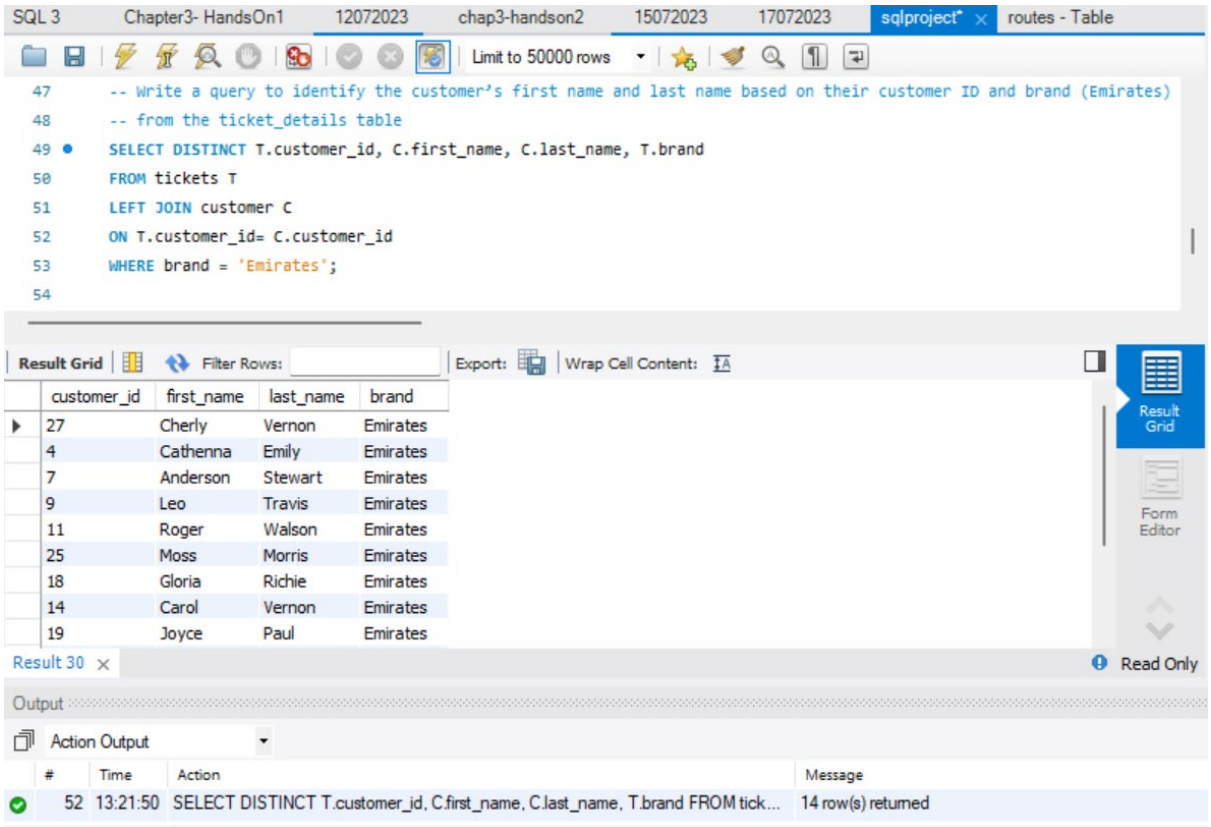
Q5.


SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023*
sqlproject
Limit to 50000 rows
-- 5
-- Write a query to display the full name of the customer by extracting the first name and last name
-- from the customer table
SELECT first_name, last_name, CONCAT(first_name,' ', last_name) AS full_name
FROM customer;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
first_name
last_name
full_name
Julie
Sam
Julie Sam
Steve
Ryan
Steve Ryan
Morris
Lois
Morris Lois
Cathenna
Emily
Cathenna Emily
Aaron
Kim
Aaron Kim
Alexander
Scot
Alexander Scot
Anderson
Stewart
Anderson Stewart
Floyd
Ted
Floyd Ted
Leo
Travis
Leo Travis
Result Grid
Form Editor
Result 58
Read Only
Output
Action Output
Time Action Message
125 17:30:16 SELECT first_name, last_name, CONCAT(first_name,' ', last_name) AS full_name F... 50 row(s) returned

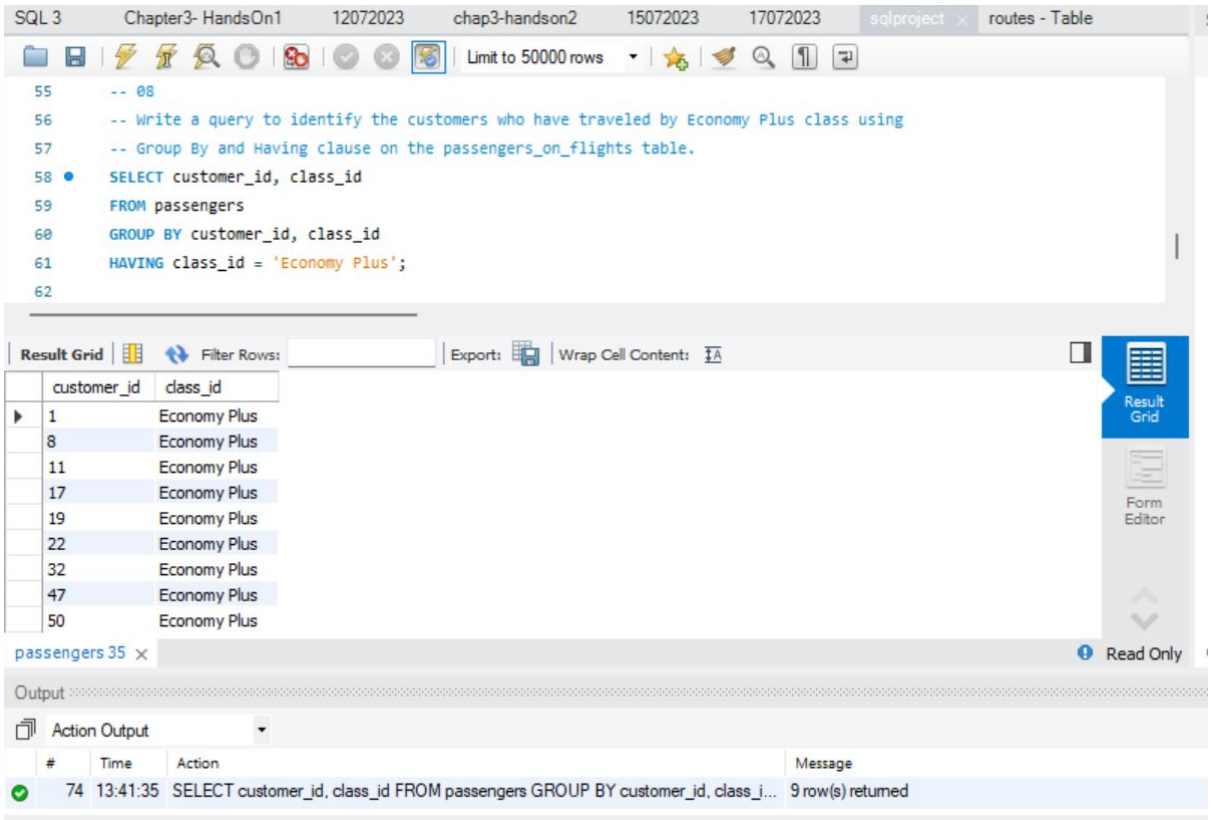
Q6.


SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023
sqlproject*
routes - Table
Limit to 50000 rows
-- 6
-- Write a query to extract the customers who have registered and booked a ticket. Use data from the
-- customer and ticket_details tables
SELECT *
FROM customer C
INNER JOIN tickets T ON C.customer_id = T.customer_id;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
customer_id | first_name | last_name | date_of_birth | gender | p_date | customer_id | aircraft_id | class_id
27 | Cherly | Vernon | 1992-03-19 00:00:00 | F | 2018-12-26 00:00:00 | 27 | 767-301ER | Economy
22 | Pheny | Eri | 1999-01-29 00:00:00 | M | 2020-02-02 00:00:00 | 22 | ERJ142 | Economy
21 | Chirsty | Josh | 2004-01-10 00:00:00 | M | 2020-03-03 00:00:00 | 21 | CRJ900 | Bussines
4 | Cathenna | Emily | 1977-09-14 00:00:00 | F | 2020-04-04 00:00:00 | 4 | 767-301ER | First Cla
5 | Aaron | Kim | 1991-02-18 00:00:00 | M | 2020-05-05 00:00:00 | 5 | ERJ142 | Economy
Result Grid
Form Editor
Result 23
Read Only
Output
Action Output
| Time | Action | Message
41 | 11:49:13 | SELECT * FROM customer C INNER JOIN tickets T ON C.customer_id = T.custom... | 50 row(s) returned

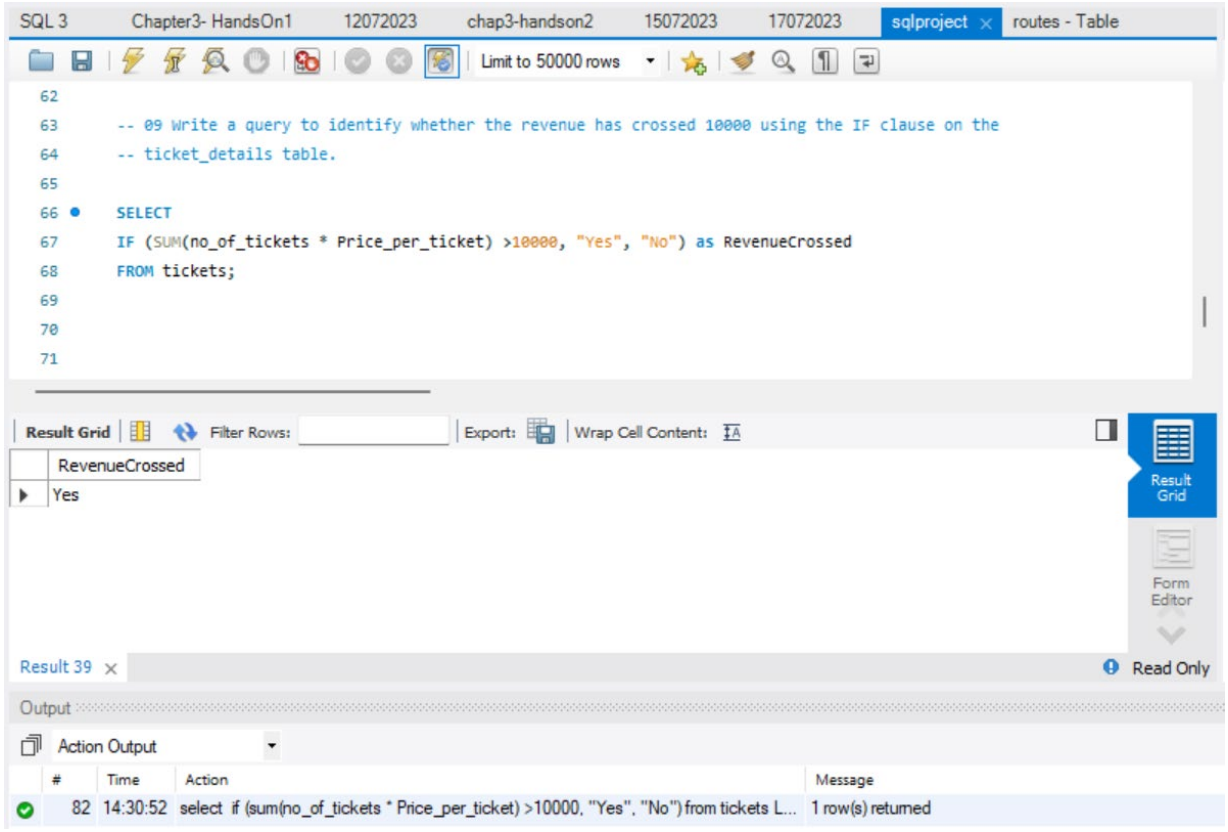
Q.7


SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023
sqlproject*
routes - Table
Limit to 50000 rows
-- 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
SELECT DISTINCT T.customer_id, C.first_name, C.last_name, T.brand
FROM tickets T
LEFT JOIN customer C
ON T.customer_id= C.customer_id
WHERE brand = 'Emirates';
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
customer_id | first_name | last_name | brand
27 | Cherly | Vernon | Emirates
4 | Cathenna | Emily | Emirates
7 | Anderson | Stewart | Emirates
9 | Leo | Travis | Emirates
11 | Roger | Walson | Emirates
25 | Moss | Morris | Emirates
18 | Gloria | Richie | Emirates
14 | Carol | Vernon | Emirates
19 | Joyce | Paul | Emirates
Result Grid
Form Editor
Result 30
Read Only
Output
Action Output
| Time | Action | Message
52 | 13:21:50 | SELECT DISTINCT T.customer_id, C.first_name, C.last_name, T.brand FROM tick... | 14 row(s) returned

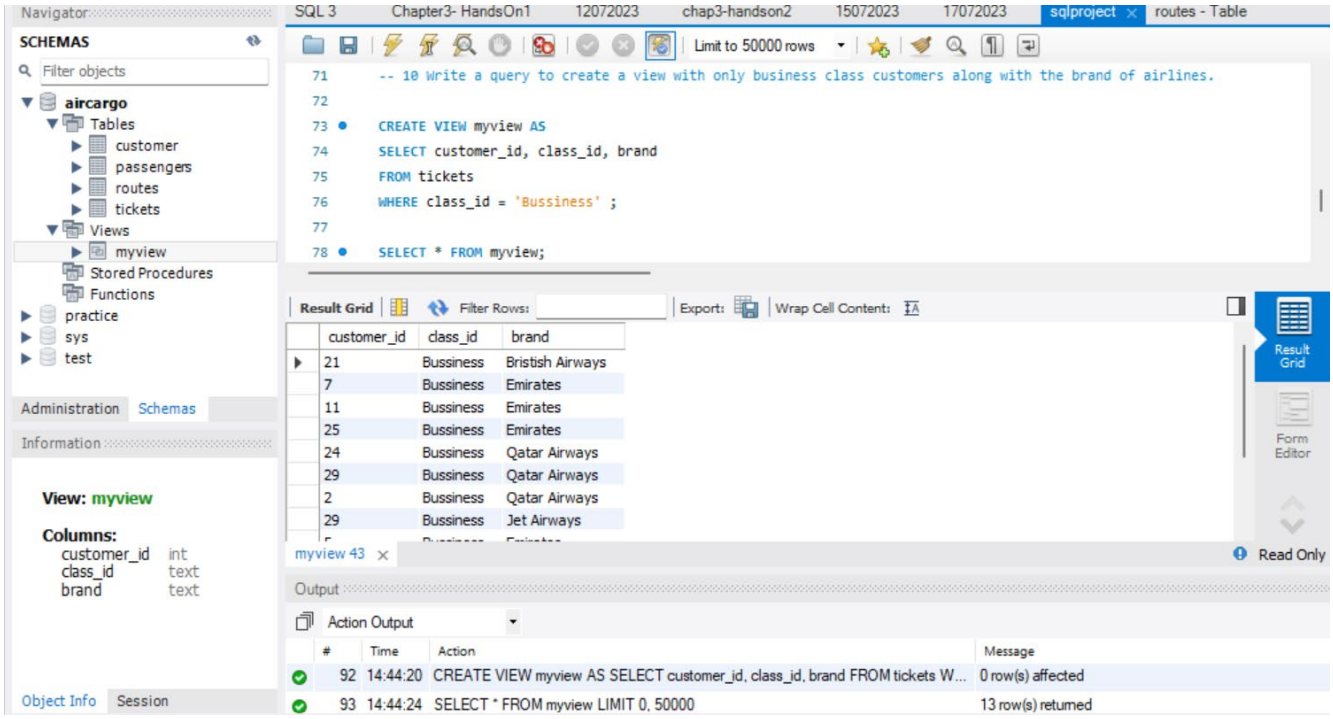
Q8.


SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023
sqlproject
routes - Table
Limit to 50000 rows
55 -- 08
56 -- Write a query to identify the customers who have traveled by Economy Plus class using
57 -- Group By and Having clause on the passengers_on_flights table.
58 SELECT customer_id, class_id
59 FROM passengers
60 GROUP BY customer_id, class_id
61 HAVING class_id = 'Economy Plus';
62
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
customer_id class_id
1 Economy Plus
8 Economy Plus
11 Economy Plus
17 Economy Plus
19 Economy Plus
22 Economy Plus
32 Economy Plus
47 Economy Plus
50 Economy Plus
Result Grid
Form Editor
passengers 35
Read Only
Output
Action Output
Time Action Message
74 13:41:35 SELECT customer_id, class_id FROM passengers GROUP BY customer_id, class_i... 9 row(s) returned

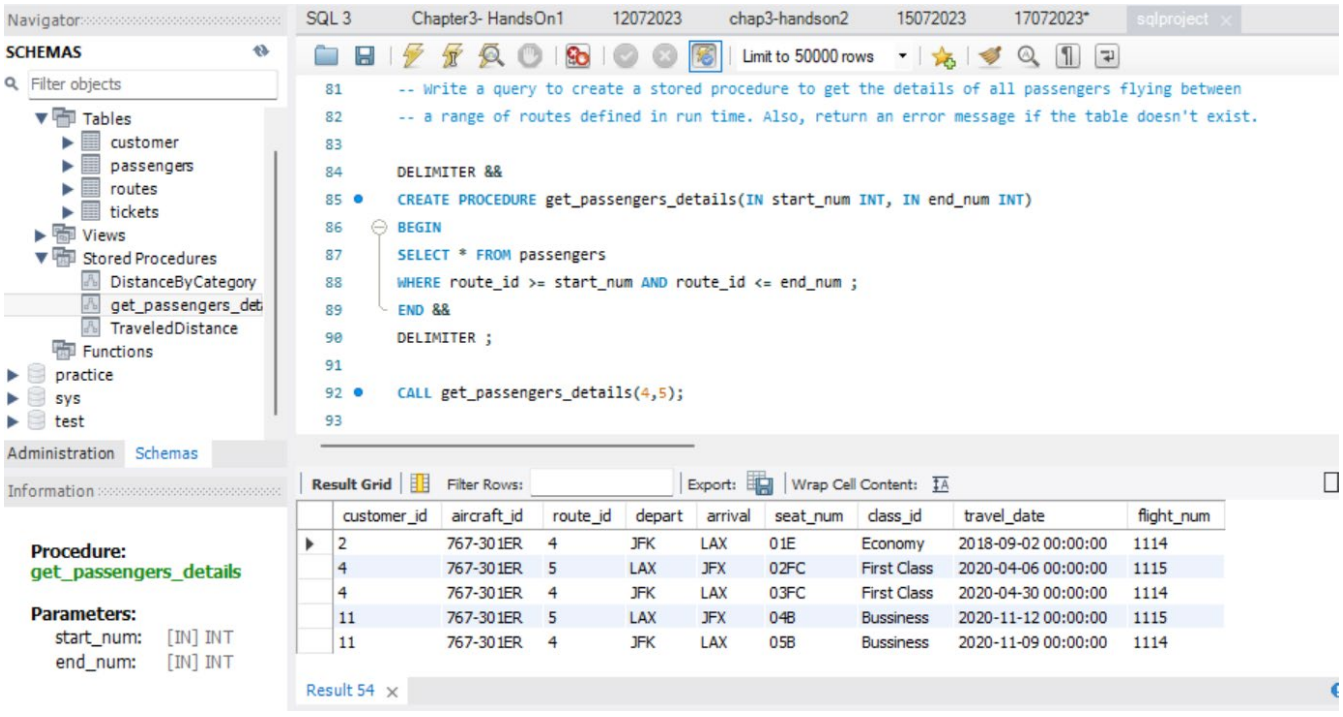
Q9.


SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023
sqlproject
routes - Table
Limit to 50000 rows
62
63 -- 09 Write a query to identify whether the revenue has crossed 10000 using the IF clause on the
64 -- ticket_details table.
65
66 SELECT
67 IF (SUM(no_of_tickets * Price_per_ticket) >10000, "Yes", "No") as RevenueCrossed
68 FROM tickets;
69
70
71
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
RevenueCrossed
Yes
Result Grid
Form Editor
Result 39
Read Only
Output
Action Output
Time Action Message
82 14:30:52 select if (sum(no_of_tickets * Price_per_ticket) >10000, "Yes", "No") from tickets L... 1 row(s) returned

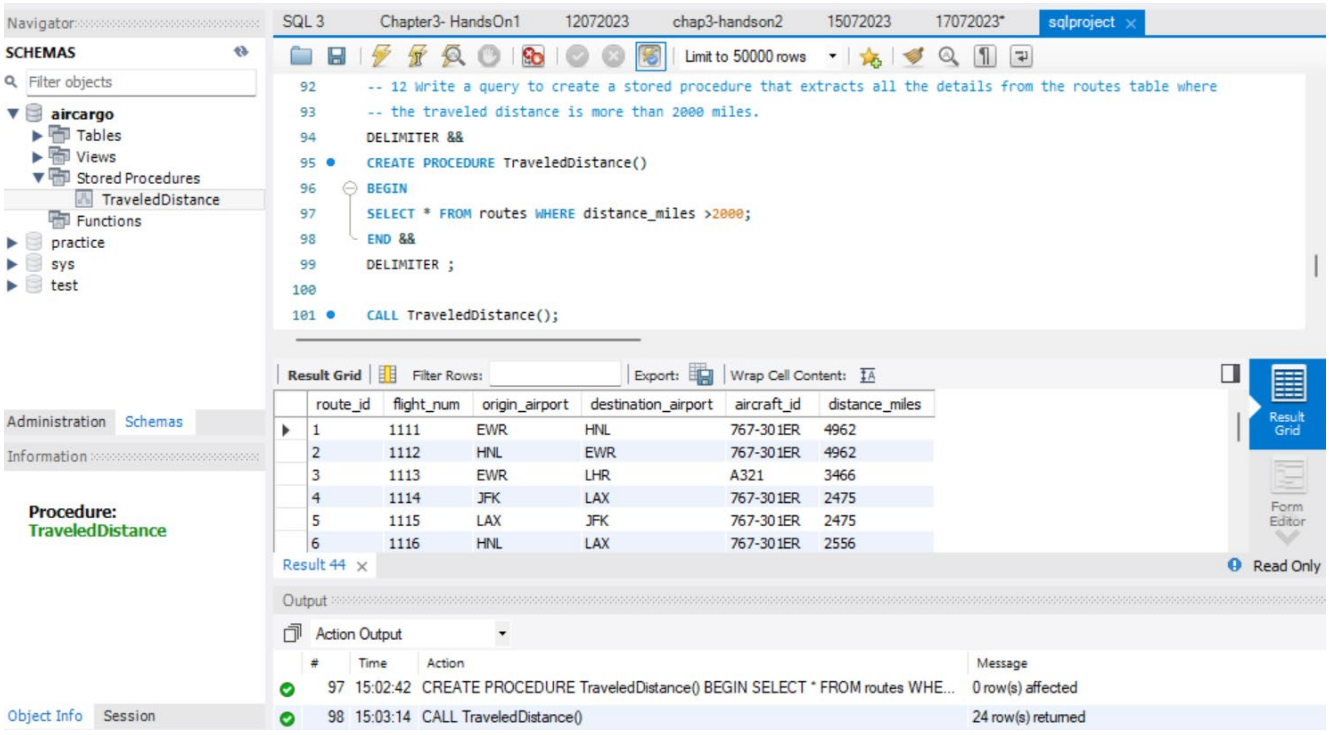
Q10.


Navigator
SCHEMAS
Filter objects
aircargo
Tables
customer
passengers
routes
tickets
Views
myview
Stored Procedures
Functions
practice
sys
test
Administration
Schemas
Information
View: myview
Columns:
customer_id int
class_id text
brand text
Object Info
Session
SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023
sqlproject
routes - Table
Limit to 50000 rows
71 -- 10 Write a query to create a view with only business class customers along with the brand of airlines.
72
73 CREATE VIEW myview AS
74 SELECT customer_id, class_id, brand
75 FROM tickets
76 WHERE class_id = 'Bussiness' ;
77
78 SELECT * FROM myview;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
customer_id class_id brand
21 Bussiness Bristish Airways
7 Bussiness Emirates
11 Bussiness Emirates
25 Bussiness Emirates
24 Bussiness Qatar Airways
29 Bussiness Qatar Airways
2 Bussiness Qatar Airways
29 Bussiness Jet Airways
myview 43
Read Only
Output
Action Output
Time Action Message
92 14:44:20 CREATE VIEW myview AS SELECT customer_id, class_id, brand FROM tickets W... 0 row(s) affected
93 14:44:24 SELECT * FROM myview LIMIT 0, 50000 13 row(s) returned

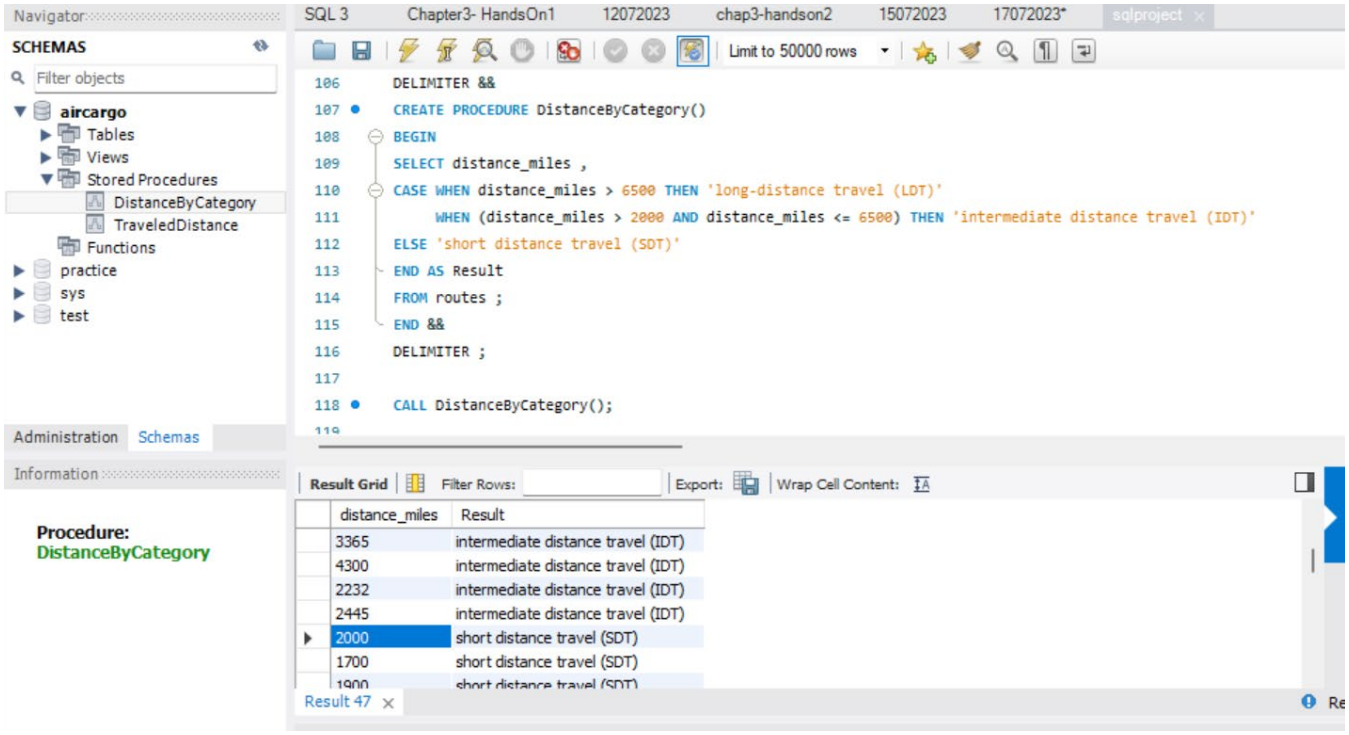
Q11.


Navigator
SCHEMAS
Filter objects
Tables
customer
passengers
routes
tickets
Views
Stored Procedures
DistanceByCategory
get_passengers_deti
TraveledDistance
Functions
practice
sys
test
Administration
Schemas
Information
Procedure:
get_passengers_details
Parameters:
start_num: [IN] INT
end_num: [IN] INT
SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023*
sqlproject
Limit to 50000 rows
81 -- Write a query to create a stored procedure to get the details of all passengers flying between
82 -- a range of routes defined in run time. Also, return an error message if the table doesn't exist.
83
84 DELIMITER &&
85 CREATE PROCEDURE get_passengers_details(IN start_num INT, IN end_num INT)
86 BEGIN
87 SELECT * FROM passengers
88 WHERE route_id >= start_num AND route_id <= end_num ;
89 END &&
90 DELIMITER ;
91
92 CALL get_passengers_details(4,5);
93
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
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 1114
4 767-301ER 5 LAX JFX 02FC First Class 2020-04-06 00:00:00 1115
4 767-301ER 4 JFK LAX 03FC First Class 2020-04-30 00:00:00 1114
11 767-301ER 5 LAX JFX 04B Bussiness 2020-11-12 00:00:00 1115
11 767-301ER 4 JFK LAX 05B Bussiness 2020-11-09 00:00:00 1114
Result 54

Q12.


Navigator
SCHEMAS
Filter objects
aircargo
Tables
Views
Stored Procedures
TraveledDistance
Functions
practice
sys
test
Administration
Schemas
Information
Procedure:
TraveledDistance
Object Info
Session
SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023*
sqlproject
Limit to 50000 rows
92 -- 12 Write a query to create a stored procedure that extracts all the details from the routes table where
93 -- the traveled distance is more than 2000 miles.
94 DELIMITER &&
95 CREATE PROCEDURE TraveledDistance()
96 BEGIN
97 SELECT * FROM routes WHERE distance_miles >2000;
98 END &&
99 DELIMITER ;
100
101 CALL TraveledDistance();
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
route_id flight_num origin_airport destination_airport aircraft_id distance_miles
1 1111 EWR HNL 767-301ER 4962
2 1112 HNL EWR 767-301ER 4962
3 1113 EWR LHR A321 3466
4 1114 JFK LAX 767-301ER 2475
5 1115 LAX JFK 767-301ER 2475
6 1116 HNL LAX 767-301ER 2556
Result 44
Read Only
Output
Action Output
Time Action Message
97 15:02:42 CREATE PROCEDURE TraveledDistance() BEGIN SELECT * FROM routes WHE... 0 row(s) affected
98 15:03:14 CALL TraveledDistance() 24 row(s) returned

Q13.


Navigator
SCHEMAS
Filter objects
aircargo
Tables
Views
Stored Procedures
DistanceByCategory
TraveledDistance
Functions
practice
sys
test
Administration
Schemas
Information
Procedure:
DistanceByCategory
SQL 3
Chapter3- HandsOn1
12072023
chap3-handson2
15072023
17072023*
sqlproject
Limit to 50000 rows
106 DELIMITER &&
107 CREATE PROCEDURE DistanceByCategory()
108 BEGIN
109 SELECT distance_miles ,
110 CASE WHEN distance_miles > 6500 THEN 'long-distance travel (LDT)'
111 WHEN (distance_miles > 2000 AND distance_miles <= 6500) THEN 'intermediate distance travel (IDT)'
112 ELSE 'short distance travel (SDT)'
113 END AS Result
114 FROM routes ;
115 END &&
116 DELIMITER ;
117
118 CALL DistanceByCategory();
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
distance_miles Result
3365 intermediate distance travel (IDT)
4300 intermediate distance travel (IDT)
2232 intermediate distance travel (IDT)
2445 intermediate distance travel (IDT)
2000 short distance travel (SDT)
1700 short distance travel (SDT)
Result 47