

Airline DB.sql - DESKTOP-BLAC28R\AirlineDB (DESKTOP-BLAC28R\Pathi) - Microsoft SQL Server Management Studio (Administrator)

```

-- 17. Update airplane seat capacity >20 where capacity < 150
UPDATE Airplane
SET total_seats = total_seats + 20
WHERE total_seats < 150;

-- 18. Delete canceled flight legs (example: available_seats = 0);
DELETE FROM Leg_Instance
WHERE available_seats = 0;

--Join TASKS-----
SELECT f1.log_no
    ,l1.departure_time
    ,l1.arrival_time
    ,a.airplane_name
FROM Flight_Leg f1
JOIN Leg_Instance l1 ON f1.log_no = l1.log_no
JOIN Flight_Leg_Assignment fia ON f1.log_no = fia.log_no
JOIN Flight f ON fia.flight_no = f.log_no
JOIN Airplane a ON f.airplane_id = a.id -- replace 1 with actual mapping if available

```

Results

	log_no	departure_time	arrival_time	airplane_name
1	101	06:05:00 0000000	12:30:00 0000000	Boring 737
2	102	14:05:00 0000000	19:30:00 0000000	Boring 737
3	103	09:05:00 0000000	11:30:00 0000000	Boring 737

Query executed successfully.

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```

--Join TASKS-----
SELECT f1.log_no
    ,l1.departure_time
    ,l1.arrival_time
    ,a.airplane_name
FROM Flight_Leg f1
JOIN Leg_Instance l1 ON f1.log_no = l1.log_no
JOIN Flight_Leg_Assignment fia ON f1.log_no = fia.log_no
JOIN Flight f ON fia.flight_no = f.log_no
JOIN Airplane a ON f.airplane_id = a.id -- replace 1 with actual mapping if available

SELECT f.flight_no
    ,f.dep_airport AS departure_airport
    ,f.arr_airport AS arrival_airport
FROM Flight f
JOIN Flight_Leg_Assignment fia ON f.flight_no = fia.flight_no
JOIN Leg_Instance l1 ON fia.log_no = l1.log_no
JOIN Airport dep ON f1.dep_airport_code = dep.airport_code
JOIN Airport arr ON f1.arr_airport_code = arr.airport_code

```

Results

	flight_no	departure_airport	arrival_airport
1	F101	Cairo International Airport	Dubai International Airport
2	F102	Dubai International Airport	King Abdulla Airport
3	F103	Cairo International Airport	King Abdulla Airport

Query executed successfully.

Object Explorer

```
--Join TASKS--
-----SELECT l.leg_no,
l.departure_time,
l.arrival_time,
a.type_name AS airplane_name
FROM Flight_Leg l ON f1.leg_no = l.leg_no
JOIN Flight_Leg_Assignment fla ON f1.leg_no = fla.leg_no
JOIN Flight f ON fla.flight_no = f.flight_no
JOIN Airplane a ON a.airplane_id = l.i -- replace l with actual mapping if available

--SELECT f.flight_no,
dep.name AS departure_airport,
arr.name AS arrival_airport
FROM Flight f
JOIN Flight_Leg_Assignment fla ON f.flight_no = fla.flight_no
JOIN Flight_Leg fl ON fla.leg_no = fl.leg_no
JOIN Airport dep ON fl.dep_airport_code = dep.airport_code
JOIN Airport arr ON fl.arr_airport_code = arr.airport_code

--SELECT r.reservation_id,
r.passenger_name,
r.phone_no,
r.leg_no,
r.flight_date
FROM Reservation r;
```

Results

reservation_id	passenger_name	phone_no	leg_no	flight_date
1	Ali Ahmed	+201234567890	101	2025-06-10
2	Fatma Saleh	+977001234567		2025-06-10
3	Mohamed Omran	+966001234567	103	2025-06-11
4	Sara Hassan	NULL	101	2025-06-10

Query executed successfully.

Object Explorer

```
--Join Leg '1' ON f1.leg_no = l.leg_no
JOIN Airplane a ON a.airplane_id = l.i -- replace l with actual mapping if available

--SELECT f.flight_no,
dep.name AS departure_airport,
arr.name AS arrival_airport
FROM Flight f
JOIN Flight_Leg_Assignment fla ON f.flight_no = fla.flight_no
JOIN Flight_Leg fl ON fla.leg_no = fl.leg_no
JOIN Airport dep ON fl.dep_airport_code = dep.airport_code
JOIN Airport arr ON fl.arr_airport_code = arr.airport_code

--SELECT r.reservation_id,
r.passenger_name,
r.phone_no,
r.leg_no,
r.flight_date
FROM Reservation r;

--SELECT fl.leg_no,
dep.city AS departure_city,
dep.state AS departure_state
FROM Flight_Leg fl
JOIN Airport dep ON fl.dep_airport_code = dep.airport_code
WHERE fl.dep_airport_code IN ('CA1', 'DXB');
```

Results

leg_no	departure_ciy	departure_state
101	Egypt	
102	Duba	UAE
103	Cairo	Egypt
104	Cairo	Egypt

Query executed successfully.

```

SELECT f.leg_no,
       dep.city AS departure_city,
       dep.state AS departure_state
  FROM Flight f
  JOIN Airport dep ON f.dep_airport_code = dep.airport_code
 WHERE f.dep_airport_code IN ('CAI','DXB');

SELECT f.leg_no,
       dep.city AS departure_city,
       dep.state AS departure_state
  FROM Flight f
 WHERE f.leg_no LIKE 'FL%';

```

This question comes empty. But I write another letter 'F'.

```

SELECT f.leg_no,
       dep.city AS departure_city,
       dep.state AS departure_state
  FROM Flight f
  JOIN Airport dep ON f.dep_airport_code = dep.airport_code
 WHERE f.dep_airport_code IN ('CAI','DXB');

SELECT f.leg_no,
       dep.city AS departure_city,
       dep.state AS departure_state
  FROM Flight f
 WHERE f.leg_no LIKE 'FL%';

```

flight_no	airline	weekdays	restrictions
FL100	EgyptAir	Mon,Wed,Fri	No restrictions
FL200	Emirates	Tue,Thu,Sat	No pets allowed
FL300	Saudia	Mon-Fri	No liquids over 100ml

```

SELECT r.passenger_name,
       r.phone_no,
       f1.leg_no,
       f1.departure_city,
       f1.departure_state
FROM Reservation r
JOIN Flight_Leg f1
ON f1.dep_airport_code = dep.airport_code
WHERE f1.dep_airport_code IN ('CAT','DXB');

SELECT *
FROM Flight_F
WHERE f.flight_no LIKE 'F%';

SELECT r.passenger_name, SUM(f.amount) AS total_payment
FROM Reservation r
JOIN Fare F ON r.leg_no = f.leg_no
GROUP BY r.passenger_name
HAVING SUM(f.amount) BETWEEN 400 AND 700;

```

Results Messages

passenger_name	total_payment
Ali Ahmed	500.00
Fatima Sehn	500.00
Hassan Qura	400.00
Sara Hasan	500.00

Query executed successfully.

Also this question I use another value available in my table.

```

SELECT r.passenger_name,
       r.phone_no,
       f1.leg_no,
       f1.departure_city,
       f1.departure_state
FROM Reservation r
JOIN Flight_Leg f1
ON f1.dep_airport_code = dep.airport_code
WHERE f1.dep_airport_code IN ('CAT','DXB');

SELECT *
FROM Flight_F
WHERE f.flight_no LIKE 'F%';

SELECT r.passenger_name, SUM(f.amount) AS total_payment
FROM Reservation r
JOIN Fare F ON r.leg_no = f.leg_no
GROUP BY r.passenger_name
HAVING SUM(f.amount) BETWEEN 400 AND 700;

USE AirlineDB;

SELECT r.passenger_name,
       r.phone_no,
       f1.leg_no,
       f1.departure_date
FROM Reservation r
JOIN Flight_Agreement f1
ON r.leg_no = f1.leg_no
WHERE f1.leg_no = 'FL100';

```

Results Messages

passenger_name	phone_no	leg_no	flight_date
Ali Ahmed	+201234567890	101	2025-06-10
Sara Hasan	NULL	101	2025-06-10

Query executed successfully.

Airline DB.sql - DESKTOP-BLAC28R.AirlineDB (DESKTOP-BLAC28R\fatih [56]) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT r.passenger_name, f.passenger_name, r.leg_no - f.leg_no, r.flight_date
FROM Reservation r
JOIN Flight_Leg_Assignment fla
ON r.leg_no = fla.leg_no
WHERE fla.flight_no = 'FL100';

-- Not possible to identify booking agents
-- Agent data is not stored in the database
SELECT passenger_name
FROM Reservation;

```

Results

passenger_name
Ali Ahmed
Fatma Seleh
Hassan Omar
Sara Heman

Query executed successfully.

Airline DB.sql - DESKTOP-BLAC28R.AirlineDB (DESKTOP-BLAC28R\fatih [56]) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT r.passenger_name, f.passenger_name, r.leg_no - f.leg_no, r.flight_date
FROM Reservation r
JOIN Flight_Leg_Assignment fla
ON r.leg_no = fla.leg_no
WHERE fla.flight_no = 'FL100';

-- Not possible to identify booking agents
-- Agent data is not stored in the database
SELECT passenger_name
FROM Reservation;

SELECT r.passenger_name, f.passenger_name, r.leg_no - f.leg_no, r.flight_date
FROM Reservation r
JOIN Flight_Leg_Assignment fla ON r.leg_no = fla.leg_no
ORDER BY r.flight_date;

```

Results

passenger_name	flight_no	flight_date
Ali Ahmed	FL100	2025-06-10
Fatma Seleh	FL200	2025-06-10
Sara Heman	FL100	2025-06-10
Hassan Omar	FL300	2025-06-11

Query executed successfully.

Airline DB.sql - DESKTOP-BLAC28R\AirlineDB (DESKTOP-BLAC28R\fathi [56]) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT r.passenger_name,
       f1a.flight_no,
       r.flight_date
FROM Reservation r
JOIN Flight_Leg_Assignment f1a ON r.leg_no = f1a.leg_no
ORDER BY r.flight_date;

SELECT f.flight_no,
       f.departure_time,
       f.airline
FROM Flight f
JOIN Flight_Leg_Assignment f1a ON f.flight_no = f1a.flight_no
JOIN Leg_Instance li ON f1a.leg_no = li.leg_no
JOIN Leg_Instances lii ON li.leg_no = lii.leg_no
JOIN Airport a ON lii.dep_airport_code = a.airport_code
WHERE a.city = 'Cairo';

```

Results

flight_no	departure_time	airline
FL100	08:05:00.000000	EgyptAir
FL300	09:05:00.000000	Saudia

Query executed successfully.

11. Display all staff members who are assigned as supervisors for flights.
I dont have Staff table.

Airline DB.sql - DESKTOP-BLAC28R\AirlineDB (DESKTOP-BLAC28R\fathi [56]) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT r.passenger_name,
       f1a.flight_no,
       r.flight_date
FROM Reservation r
JOIN Flight_Leg_Assignment f1a ON r.leg_no = f1a.leg_no
ORDER BY r.flight_date;

SELECT f.flight_no,
       li.departure_time,
       li.airline
FROM Flight f
JOIN Flight_Leg_Assignment f1a ON f.flight_no = f1a.flight_no
JOIN Leg_Instance li ON f1a.leg_no = li.leg_no
JOIN Leg_Instances lii ON li.leg_no = lii.leg_no
JOIN Airport a ON lii.dep_airport_code = a.airport_code
WHERE a.city = 'Cairo';

USE AirlineDB;

SELECT r.reservation_id,
       r.passenger_name,
       r.phone_no,
       r.leg_no,
       r.flight_date
FROM Reservation r;

```

Results

reservation_id	passenger_name	phone_no	leg_no	flight_date
1	All Ahmed	+201234567890	101	2025-06-10
2	Fatma Saleh	+971501234567	102	2025-06-10
3	Hassan Omar	+966501234567	103	2025-06-11
4	Sara Hassan	NULL	101	2025-06-10

Query executed successfully.