

## Airline Database – JOIN Queries

1. Display each flight leg's ID, schedule, and the name of the airplane assigned to it.

The screenshot shows a SQL query in a database client. The query is as follows:

```
----1. Display each flight leg's ID, schedule, and the name of the airplane assigned to  
  
SELECT li.leg_instance_id, li.depart_time AS schedule, a.type_name AS airplane_name  
FROM LegInstance li  
JOIN Airplane a ON li.airplane_id = a.airplane_id;
```

The results are displayed in a table with the following data:

	leg_instance_id	schedule	airplane_name
1	1	2025-12-16 10:00:00.000	Boeing737
2	2	2025-12-17 12:00:00.000	AirbusA320
3	3	2025-12-18 14:00:00.000	Boeing737

2. Display all flight numbers and the names of the departure and arrival airports.

The screenshot shows a SQL query in a database client. The query is as follows:

```
SELECT fl.flight_leg_code,  
       dep.name AS departure_airport  
FROM FlightLeg fl  
inner JOIN Airport dep ON fl.air_code = dep.air_code;
```

The results are displayed in a table with the following data:

	flight_leg_code	departure_airport
1	1	Muscat International Airport
2	2	Salalah Airport
3	3	Masirah Airport

3. Display all reservation data with the name and phone of the customer who made each booking.

```
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```

```
SELECT reservation_id,
       seat_number,
       customer_name,
       customer_phone,
       leg_instance_id
FROM Reservation;
```

100 % 4 0

	reservation_id	seat_number	customer_name	customer_phone	leg_instance_id
1	1	1	Ahmed Al-Amri	968-99123456	1
2	2	2	Salma Al-Balushi	968-99112233	1
3	3	3	Hamad Al-Harthy	968-99234567	2
4	4	4	Aisha Al-Lawati	968-99345678	2
5	5	5	Sultan Al-Rashidi	968-99456789	1
6	6	6	Fatma Al-Mahrouqi	968-99567890	3
7	7	7	Khalid Al-Salmi	968-99678901	3
8	8	8	Laila Al-Hinai	968-99789012	3

4. Display IDs and locations of flights departing from 'CAI' or 'DXB'.

```
25
26
27
28
29
30
31
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```

```
----4. Display IDs and locations of flights departing from 'CAI' or 'DXB'

SELECT li.leg_instance_id, li.depart_time, fl.air_code
FROM LegInstance li
JOIN FlightLeg fl ON li.leg_no = fl.leg_no
WHERE fl.air_code IN ('CAI', 'DXB');
```

100 % 4 0 Ln:

leg_instance_id	depart_time	air_code
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5. Display full data of flights whose names start with 'A'.

```

33
34      ----5. Display full data of flights whose names start with 'A'.
35      SELECT *
36      FROM Flight
37      WHERE airline LIKE 'A%';
38
39
40      |
41

```

%	4	0	↑	↓
Results	Messages			
flight_leg_code	restriction	airline	weekdays	

6. List customers who have bookings with total payment between 3000 and 5000.

```

40
41      SELECT r.customer_name,
42             r.customer_phone,
43             (f.amount * r.seat_number) AS total_payment
44      FROM Reservation r
45      JOIN LegInstance li ON r.leg_instance_id = li.leg_instance_id
46      JOIN Fare f ON li.leg_no = f.flight_leg_code
47      WHERE (f.amount * r.seat_number) BETWEEN 3000 AND 5000;
48

```

%	4	0	↑	↓
Results	Messages			
customer_name	customer_phone	total_payment		

7. Retrieve all passengers on 'Flight 110' who booked more than 2 seats.

```
51
52 SELECT r.customer_name,
53        SUM(r.seat_number) AS seats_booked
54 FROM Reservation r
55 JOIN LegInstance li ON r.leg_instance_id = li.leg_instance_id
56 JOIN Flight f ON li.leg_no = f.flight_leg_code
57 WHERE f.flight_leg_code = 1 -- Flight 110
58 GROUP BY r.customer_name
59 HAVING SUM(r.seat_number) > 2;
60
```

100 % 5 0

Results Messages

	customer_name	seats_booked
1	Sultan Al-Rashidi	5

8. Find names of passengers whose booking was handled by agent "Youssef Hamed".

There is no table with agent name

9. Display each passenger's name and the flights they booked, ordered by flight date.

```
65  ----9. Display each passenger's name and the flights they bo
66  SELECT r.customer_name,
67         f.airline AS flight_airline,
68         li.depart_time AS flight_date
69  FROM Reservation r
70  JOIN LegInstance li ON r.leg_instance_id = li.leg_instance_i
71  JOIN Flight f ON li.leg_no = f.flight_leg_code
72  ORDER BY li.depart_time;
73
```

100 % 4 0

Results Messages

	customer_name	flight_airline	flight_date
1	Ahmed Al-Amri	Oman Air	2025-12-16 10:00:00.000
2	Salma Al-Balushi	Oman Air	2025-12-16 10:00:00.000
3	Sultan Al-Rashidi	Oman Air	2025-12-16 10:00:00.000
4	Hamad Al-Harthy	Oman Air	2025-12-17 12:00:00.000
5	Aisha Al-Lawati	Oman Air	2025-12-17 12:00:00.000
6	Fatma Al-Mahrouqi	Oman Air	2025-12-18 14:00:00.000
7	Khalid Al-Salmi	Oman Air	2025-12-18 14:00:00.000
8	Laila Al-Hinai	Oman Air	2025-12-18 14:00:00.000

10. For each flight departing from 'Cairo', display the flight number, departure time, and airline name.

```
74  10. For each flight departing from 'Cairo', display the flight num
75
76  SELECT f.flight_leg_code AS flight_number,
77         li.depart_time,
78         f.airline
79  FROM FlightLeg fl
80  inner JOIN LegInstance li ON li.leg_no = fl.leg_no
81  inner JOIN Flight f ON fl.flight_leg_code = f.flight_leg_code
82  WHERE fl.air_code = 'CAI';
83
```

100 % 5 0

Results Messages

flight_number	depart_time	airline
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11. Display all staff members who are assigned as supervisors for flights.

In the current database schema, there is no table for staff members and no link between staff and flights.

12. Display all bookings and their related passengers, even if some bookings are unpaid

```
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90 | SELECT r.reservation_id,
91 |        r.customer_name,
92 |        r.customer_phone,
93 |        f.amount AS fare_amount,
94 |        li.depart_time
95 | FROM Reservation r
96 | LEFT JOIN LegInstance li ON r.leg_instance_id = li.leg_instance_id
97 | LEFT JOIN Fare f ON li.leg_no = f.flight_leg_code
98 | ORDER BY r.reservation_id;
99 |
```

100 % 4 0

Results Messages

reservation_id	customer_name	customer_phone	fare_amount	depart_time
1	Ahmed Al-Amri	968-99123456	120.00	2025-12-16 10:00:00.000
2	Salma Al-Balushi	968-99112233	120.00	2025-12-16 10:00:00.000
3	Hamad Al-Harthy	968-99234567	150.00	2025-12-17 12:00:00.000
4	Aisha Al-Lawati	968-99345678	150.00	2025-12-17 12:00:00.000
5	Sultan Al-Rashidi	968-99456789	120.00	2025-12-16 10:00:00.000
6	Fatma Al-Mahrouqi	968-99567890	200.00	2025-12-18 14:00:00.000
7	Khalid Al-Salmi	968-99678901	200.00	2025-12-18 14:00:00.000
8	Laila Al-Hinai	968-99789012	200.00	2025-12-18 14:00:00.000