

The screenshot shows the Database Explorer panel on the left, displaying a tree view of database objects. The root node is 'postgres@localhost' (2 of 3), which contains 'lab2_db' (3), 'information_schema', 'pg_catalog', and 'public'. 'public' is expanded to show 'tables' (10) containing 'airline', 'airport', 'baggage', 'baggage_check', 'boarding_pass', 'booking', 'booking_flight', 'flights', 'passengers', 'security_check', and 'sequences' (10). Other nodes include 'Database Objects', 'postres' (1 of 3), and 'Server Objects'. The main editor area shows a SQL file named '1.sql' with the following content:

```
1 ✓ SELECT f.*  
2 FROM flights f  
3 JOIN airline a 1..n<->1: ON a.airline_id = f.airline_id  
4 WHERE a.airline_name = 'Aeroméxico';  
5
```

The connection details at the top of the editor are 'lab2_db.public' and 'postgres@localhost'. The 'Files' panel on the right shows a file structure under 'Lab3' and 'lab 6', with '1.sql' being edited.

The screenshot shows the Services panel at the bottom, which includes a 'Database' section and an 'Output' tab. The 'Database' section shows 'postgres@localhost' with files 'd.sql' and '1.sql' (566 ms). The 'Output' tab displays the results of a query against the 'flights' table:

| flight_id | sch_departure_time | sch_arrival_time | departing_airport_id | arriving_airport_id |
|-----------|----------------------------|----------------------------|----------------------|---------------------|
| 1 | 2024-10-30 00:00:00.000000 | 2025-05-24 00:00:00.000000 | | 9 |
| 2 | 2025-07-05 00:00:00.000000 | 2024-10-01 00:00:00.000000 | | 11 |
| 3 | 2024-12-07 00:00:00.000000 | 2025-01-01 00:00:00.000000 | 9 rows | 11 |

The status bar at the bottom indicates 'SUM: Not enough values' and other file-related information.

Lab3 Version control

Database Explorer

1.sql

postgres@localhost lab2_db public postgres@localhost

```
1 SELECT f.*  
2 FROM flights f  
3 JOIN airline a 1..n->1: ON a.airline_id = f.airline_id  
4 WHERE a.airline_name = 'Aeroméxico';  
5  
6  
7 ✓  
8 SELECT f.flight_id,  
9     dep.airport_name AS departing_airport  
10 FROM flights f  
11 JOIN airport dep 1..n->1: ON dep.airport_id = f.departing_airport_id  
12 ORDER BY f.flight_id;
```

Files

Lab3 C:\Users\amina\D
lab 6 C:\Users\amina\D
1.sql[postgres@localhost]
Scratches and Consoles

Services

Output Result 8

Tx Database

postgres@localhost d.sql 1.sql 496 ms

flight_id departing_airport

| flight_id | departing_airport |
|-----------|--------------------------|
| 1 | Kobe Airport |
| 2 | Balıkesir Merkez Airport |
| 3 | Kobe Airport |

20 rows

lab 6 > 1.sql

11:22 CRLF UTF-8 4 spaces

Lab3 Version control

Database Explorer

1.sql

postres@localhost lab2_db public

```
6
7     SELECT f.flight_id,
8         dep.airport_name AS departing_airport
9     FROM flights f
10    JOIN airport dep 1..n->1: ON dep.airport_id = f.departing_airport_id
11    ORDER BY f.flight_id;

14 ✓
15     SELECT a.airline_id, a.airline_name
16     FROM airline a
17 WHERE NOT EXISTS (
18     SELECT 1
19     FROM flights f
20     WHERE f.airline_id = a.airline_id
21     AND f.sch_departure_time >= now()
22     AND f.sch_departure_time < now() + INTERVAL '30 days'
23
24 );
```

Services

Output lab2_db.public.airline

airline_id airline_name

| airline_id | airline_name |
|------------|------------------------|
| 1 | American Aerolines |
| 2 | Ethiopian Aerolines |
| 3 | FlyHigh |
| 4 | KenyaAero |
| 5 | Qatar Airways |
| 6 | Saudi Arabian Airlines |
| 7 | Turkish Airlines |
| 8 | UAE Airline |
| 9 | Vietnam Airlines |

lab 6 > 1.sql 486 ms

22:3 CRLF UTF-8 4 spaces

Services

The screenshot shows the pgAdmin interface. At the top, there's a toolbar with icons for Tx, +, eye, square, and X. Below it is a navigation bar with a square icon and a dropdown menu set to 'Database'. Under 'Database', there's a connection named 'postgres@localhost' with a dropdown arrow. Below the connection, there are two items: 'd.sql' with a purple disk icon and '1.sql' with a green disk icon, followed by '506 ms'.

The screenshot shows a PostgreSQL database management interface with the following details:

Database Explorer (Left Panel):

- Connected to `postgres@localhost` (2 of 3).
- Selected database: `lab2_db` (3 objects).
- Tables: `airline`, `airport`, `baggage`, `baggage_check`, `boarding_pass`, `booking`, `booking_flight`, `flights`, `passengers`, `security_check`.
- Sequences: `sequences` (10 objects).
- Database Objects.
- Postgres (1 of 3).
- Server Objects.

Editor Tab (1.sql):

```
21 |     AND f.sch_departure_time < now() + INTERVAL '30 days'
22 | );
23 |
24 |
25 |
26 |
27 |     SELECT p.passenger_id, p.first_name, p.last_name
28 |     FROM booking b
29 |     JOIN passengers p 1..n<->1: ON p.passenger_id = b.passenger_id
30 |     WHERE b.flight_id = :flight_id;
31 |
32 |
33 |
34 |
35 |     SELECT b.flight_id,
36 |             ROUND(AVG(b.ticket_price),2) AS avg_price,
37 |             SUM(b.ticket_price)          AS total_price,
38 |             MAX(b.ticket_price)         AS max_price,
39 |             MIN(b.ticket_price)         AS min_price
40 |     FROM booking b
41 |     GROUP BY b.flight_id
42 |     ORDER BY b.flight_id;
```

Output Tab:

| flight_id | avg_price | total_price | max_price | min_price |
|-----------|-----------|-------------|-----------|-----------|
| 1 | 589.5 | 2358 | 876 | |
| 2 | 180 | 360 | 191 | |
| 3 | 445 | 445 | 445 | |

Bottom Status Bar:

lab 6 > 1.sql 593 ms 42:22 CRLF UTF-8 4 spaces

The screenshot shows a PostgreSQL database management interface with the following components:

- Database Explorer**: Shows the database structure for `postgres@localhost`. It includes the `lab2_db` schema with tables like `airline`, `airport`, `baggage`, etc., and sequences.
- Query Editor (1.sql)**: Displays two SQL queries. The first query calculates average, total, maximum, and minimum ticket prices per flight. The second query retrieves flight details for flights arriving in Brazil, joining `flights`, `airport`, and `airline` tables.

```
34
35     SELECT b.flight_id,
36             ROUND(AVG(b.ticket_price),2) AS avg_price,
37             SUM(b.ticket_price)          AS total_price,
38             MAX(b.ticket_price)         AS max_price,
39             MIN(b.ticket_price)         AS min_price
40     FROM booking b
41     GROUP BY b.flight_id
42     ORDER BY b.flight_id;
43
44
45
46 ✓
47
48
49
50
51
52
53
54
55
56
```

```
SELECT f.flight_id,
       a.airline_name,
       arr.country      AS destination_country,
       arr.airport_name AS destination_airport
  FROM flights f
 JOIN airport arr 1..n<->1: ON arr.airport_id = f.arriving_airport_id
 JOIN airline a   1..n<->1: ON a.airline_id    = f.airline_id
 WHERE arr.country = 'Brazil';
```
- Files**: Shows the file structure for `Lab3` and `lab 6`, including the `1.sql` file.
- Services**: Shows the transaction status and a list of databases, with `postgres@localhost` selected.
- Output**: Shows the results of the second query, which returns one row: flight 2 from South African Aeroways to Kobe Airport in Brazil.
- Bottom Status Bar**: Shows the file path `lab 6 > 1.sql`, and system information like `53:30 CRLF UTF-8 4 spaces`.

Lab3 Version control

Database Explorer

1.sql

postres@localhost lab2_db public

```
53 WHERE arr.country = 'Brazil';
54
55
56
57
58 ✓ SELECT DISTINCT
59     p.passenger_id,
60     p.first_name || ' ' || p.last_name AS full_name,
61     arr.airport_name AS arrival_airport,
62     arr.city, arr.country
63 FROM passengers p
64 JOIN booking b 1<->1..n: ON b.passenger_id = p.passenger_id
65 JOIN flights f 1..n->1: ON f.flight_id = b.flight_id
66 JOIN airport arr 1..n->1: ON arr.airport_id = f.arriving_airport_id
67 WHERE DATE_PART('year', age(current_date, p.date_of_birth)) < 18;
```

Services

Tx

+

Database

postres@localhost

d.sql

1.sql 504 ms

Output Result 18

passenger_id full_name arrival_airport city country

| passenger_id | full_name | arrival_airport | city | country |
|--------------|-------------------|----------------------|---------------|-----------|
| 1 | Jeremie Mallinson | Fria Airport | Jagdaqi | China |
| 2 | Delilah Bartos | West Angelas Airport | Sumberkenanga | Indonesia |
| 3 | Elke Hoxey | Enon | 43 rows | Bondoufle |

Lab3 Version control

Database Explorer

1.sql

postgres@localhost lab2_db public postgres@localhost

```
66 JOIN airport arr 1..n->1: ON arr.airport_id = f.arriving_airport_id
67 WHERE DATE_PART('year', age(current_date, p.date_of_birth)) < 18;
68
69
70
71
72
73
74
75 SELECT p.first_name || ' ' || p.last_name AS full_name,
76     p.passport_number,
77     f.act_arrival_time AS actual_arrival_time,
78     arr.airport_name AS arrival_airport
79 FROM booking b
80 JOIN passengers p 1..n->1: ON p.passenger_id = b.passenger_id
81 JOIN flights f 1..n->1: ON f.flight_id = b.flight_id
82 JOIN airport arr 1..n->1: ON arr.airport_id = f.arriving_airport_id
83 ORDER BY f.act_arrival_time NULLS LAST;
```

Services

Output Result 19

Database postgres@localhost d.sql 1.sql 503 ms

| full_name | passport_number | actual_arrival_time | arrival_airport |
|-------------------|-----------------|----------------------------|-----------------------------|
| Carolynn Smeall | xP9),6gv79g | 2024-09-27 00:00:00.000000 | Fria Airport |
| Quintin Retallick | lT3/mtn | 2024-09-27 00:00:00.000000 | Fria Airport |
| Jeremie Mallinson | lC7`bXkYlt& | 50 rows ▾ | 0:00:00.000000 Fria Airport |

lab 6 > 1.sql 83:40 CRLF UTF-8 4 spaces

Lab3 Version control

Database Explorer

1.sql

postres@localhost lab2_db

```
83 ORDER BY f.act_arrival_time NULLS LAST;
84
85
86
87
88
89
90
91
92
93 ✓ SELECT dep.country AS origin_country,
94     ARRAY_AGG(f.flight_id ORDER BY f.flight_id) AS flights
95 FROM flights f
96 JOIN airline a 1..n<->1: ON a.airline_id      = f.airline_id
97 JOIN airport dep 1..n<->1: ON dep.airport_id   = f.departing_airport_id
98 WHERE a.airline_country = dep.country
99 GROUP BY dep.country
100 ORDER BY dep.country;
```

Files

Lab3 C:\Users\amina\D
lab 6 C:\Users\amina\D
1.sql[postgres@localhost]
Scratches and Consoles

Services

Tx

Output Result 20

Database

postres@localhost d.sql

1.sql 437 ms

0 rows

100:22 CRLF UTF-8 4 spaces