

The screenshot shows a PostgreSQL database interface. In the top navigation bar, there are tabs for 'DB' (highlighted in green), 'DB_lab2', and 'Version control'. On the far right are icons for profile, search, and settings. Below the navigation is the 'Database Explorer' sidebar, which includes a '+' icon, connection status for 'postgres@localhost' (2 connections), and icons for refresh, DDL, and眼睛 (eye). The main area is titled 'console' and contains a code editor with the following SQL query:

```
1 ✓ SELECT f.*  
2 FROM flights f  
3 JOIN airline a ON f.airline_id = a.airline_id  
4 WHERE a.airline_name = 'Air Astana';|
```

The code editor has a toolbar with icons for play, stop, pause, settings, and Tx: Auto dropdown. To the right of the code editor is a dropdown menu for 'zhanel.public' with a checkmark icon.

The bottom section is the 'Services' panel. It features a toolbar with icons for Tx, +, eye, and close. A dropdown menu shows 'Database' selected, with 'postgres@localhost' listed under it. The 'console' tab is active, showing a timestamp of '995 ms'. To the right is the 'Output' pane, which displays the executed SQL query and its results:

```
[2025-11-03 13:55:36] zhanel.public> SELECT f.*  
FROM flights f  
JOIN airline a ON f.airline_id = a.airline_id  
WHERE a.airline_name = 'Air Astana'  
[2025-11-03 13:55:36] 0 rows retrieved in 459 ms (execution: 17 ms, fetching: 442 ms)
```

The output pane has a toolbar with icons for copy, print, and trash. The status bar at the bottom shows 'Database Consoles > postgres@localhost > console' and system information like '4:37 LF UTF-8 4 spaces'.

Services

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

- Top Bar:** Includes icons for Database Explorer, Version control, and settings.
- Database Explorer:** Shows a connection to `postgres@localhost`.
- Console Tab:** Contains the following SQL query:

```
--3
SELECT a.airline_name
FROM airline a
LEFT JOIN flight f
ON a.airline_id = f.airline_id
AND f.departure_time BETWEEN NOW() AND NOW() + INTERVAL '1 month'
WHERE f.flight_id IS NULL;
```
- Output Tab:** Displays the results of the query in a table format. The table has one column labeled `airline_name`. The data is as follows:

airline_name
IPC
PDN
KLE
KHS
YLQ
NGL
Ø
QIG
NQX
SOZ
IVA
KOQ
IFH
PIR
KKG

At the bottom, it shows `51 rows`.

Services: Shows a transaction list with one entry: `console 352 ms`.

The screenshot shows a PostgreSQL database console interface. The top bar includes tabs for 'DB' (selected), 'DB_lab2', and 'Version control'. The main area is titled 'console' and contains the following SQL query:

```
--4
SELECT p.full_name
FROM passengers p
JOIN ticket t 1<->1..n: ON p.passenger_id = t.passenger_id
JOIN flight f 1..n<->1: ON t.flight_id = f.flight_id
WHERE f.flight_id = 1;
```

The query is numbered from 1 to 10. Lines 1 through 6 are visible, with line 2 showing a green checkmark indicating successful execution. Lines 7 through 10 are empty.

Services

The Services panel displays the execution history of the query. It includes a transaction toolbar and a tree view of databases. The 'Database' node is expanded, showing the connection 'postgres@localhost'. The 'console' tab is selected, showing the execution time of 336 ms.

The 'Output' tab shows the results of the query execution:

```
[2025-11-03 14:18:02] completed in 11 ms
[2025-11-03 14:18:07] zhanel.public> SELECT p.full_name
                           FROM passengers p
                           JOIN ticket t ON p.passenger_id = t.passenger_id
                           JOIN flight f ON t.flight_id = f.flight_id
                           WHERE f.flight_id = 1
[2025-11-03 14:18:07] 0 rows retrieved in 326 ms (execution: 4 ms, fetching: 322 ms)
```

The screenshot shows a PostgreSQL database console interface. The top bar includes tabs for 'DB' (selected), 'DB_lab2', and 'Version control'. The main area is titled 'console' and contains a query editor with the following SQL code:

```
--5
SELECT f.destination,
       AVG(t.price) AS avg_price,
       MAX(t.price) AS max_price,
       MIN(t.price) AS min_price
  FROM flight f
 JOIN ticket t 1<->1..n: ON f.flight_id = t.flight_id
 GROUP BY f.destination;
```

The code is highlighted with syntax coloring. The bottom right corner of the code area has a green checkmark icon.

The bottom section is the 'Services' panel, which displays the execution results. It includes a 'Tx' tab and a 'Database' tree view with a selected connection 'postgres@localhost'. The 'Output' tab shows the executed SQL query and its execution details:

```
[2025-11-03 15:12:01] zhanel.public> SELECT f.destination,
       AVG(t.price) AS avg_price,
       MAX(t.price) AS max_price,
       MIN(t.price) AS min_price
  FROM flight f
 JOIN ticket t ON f.flight_id = t.flight_id
 GROUP BY f.destination
```

[2025-11-03 15:12:01] 0 rows retrieved in 352 ms (execution: 23 ms, fetching: 329 ms)

DB DB_lab2 Version control

Database Explorer

console

postgres@localhost 2

```
1 --6
2 ✓ SELECT f.flight_id,
3         f.flight_no,
4         a.airline_name,
5         ap.airport_name AS destination_airport,
6         ap.country AS destination_country
7     FROM flights f
8     JOIN airline a ON f.airline_id = a.airline_id
9     JOIN airport ap ON f.arrival_airport_id = ap.airport_id
10    WHERE ap.country = 'Kazakhstan';
11
```

zhanel.public ✓

Services

Tx + ⚡ ×

Database

postgres@localhost

console 843 ms

Output --6

```
[2025-11-03 15:52:31] zhanel.public> SELECT f.flight_id,
[2025-11-03 15:52:31] zhanel.public>         f.flight_no,
[2025-11-03 15:52:31] zhanel.public>         a.airline_name,
[2025-11-03 15:52:31] zhanel.public>         ap.airport_name AS destination_airport,
[2025-11-03 15:52:31] zhanel.public>         ap.country AS destination_country
[2025-11-03 15:52:31] zhanel.public>     FROM flights f
[2025-11-03 15:52:31] zhanel.public>     JOIN airline a ON f.airline_id = a.airline_id
[2025-11-03 15:52:31] zhanel.public>     JOIN airport ap ON f.arrival_airport_id = ap.airport_id
[2025-11-03 15:52:31] zhanel.public>     WHERE ap.country = 'Kazakhstan'
[2025-11-03 15:52:31] 0 rows retrieved in 334 ms (execution: 11 ms, fetching: 323 ms)
```

Database Explorer

+ ⚙️ ⌂ DDL ⚡

> postgres@localhost [2]

console x

```
1 --7
2 ✓ SELECT p.full_name,
3         ap.airport_name AS arrival_airport
4     FROM passengers p
5     JOIN ticket t 1<->1..n: ON p.passenger_id = t.passenger_id
6     JOIN flights f ON t.flight_id = f.flight_id
7     JOIN airport ap ON f.arrival_airport_id = ap.airport_id
8 WHERE AGE(CURRENT_DATE, p.date_of_birth) < INTERVAL '18 years';
```

zhanel.public ✓

Services

Tx + ⚡ ⚡

Database
 postgres@localhost

console 347 ms

Output --7

```
[2025-11-03 15:57:25] zhanel.public> SELECT p.full_name,
[2025-11-03 15:57:25] zhanel.public>         ap.airport_name AS arrival_airport
[2025-11-03 15:57:25] zhanel.public>     FROM passengers p
[2025-11-03 15:57:25] zhanel.public>     JOIN ticket t ON p.passenger_id = t.passenger_id
[2025-11-03 15:57:25] zhanel.public>     JOIN flights f ON t.flight_id = f.flight_id
[2025-11-03 15:57:25] zhanel.public>     JOIN airport ap ON f.arrival_airport_id = ap.airport_id
[2025-11-03 15:57:25] zhanel.public> WHERE AGE(CURRENT_DATE, p.date_of_birth) < INTERVAL '18 years'
[2025-11-03 15:57:25] 0 rows retrieved in 324 ms (execution: 9 ms, fetching: 315 ms)
```

⋮

Database Explorer

+

> postgres@localhost [2]

console x

```
> --8
2 ✓ SELECT p.full_name,
3     p.passport_number,
4     f.scheduled_arrival AS arrival_time
5 FROM passengers p
6 JOIN ticket t 1<->1..n: ON p.passenger_id = t.passenger_id
7 JOIN flights f ON t.flight_id = f.flight_id;
8
```

zhanel.public ✓

Services

Tx

Database
 < Database
 < postgres@localhost

console 794 ms

Output

```
[2025-11-03 16:03:40] completed in 1 ms
[2025-11-03 16:03:40] zhanel.public> SELECT p.full_name,
[2025-11-03 16:03:40]          p.passport_number,
[2025-11-03 16:03:40]          f.scheduled_arrival AS arrival_time
[2025-11-03 16:03:40] FROM passengers p
[2025-11-03 16:03:40] JOIN ticket t ON p.passenger_id = t.passenger_id
[2025-11-03 16:03:40] JOIN flights f ON t.flight_id = f.flight_id
[2025-11-03 16:03:40] 0 rows retrieved in 331 ms (execution: 8 ms, fetching: 323 ms)
```

:

DB DB_lab2 Version control

Database Explorer

console

zhanel.public ✓

```
--9
SELECT f.flight_id,
       f.flight_no,
       a.airline_name,
       ap.country AS origin_country
FROM flights f
JOIN airline a ON f.airline_id = a.airline_id
JOIN airport ap ON f.departure_airport_id = ap.airport_id
WHERE a.airline_country = ap.country
GROUP BY f.flight_id, f.flight_no, a.airline_name, ap.country;
```

Services

Output --9

	flight_id	flight_no	airline_name	origin_country	
1		948	US-WA	YLP	Brazil
2		292	VN-U-A	DUC	Poland
3		748	BR-MG	YHB	China
4		37	ID-MU	KIQ	China
5		983	GA-6	PIR	China
6		895	BR-PE	YEK	China
7		663	UG-212	KGF	Indonesia
8		570	KE-500	MXW	China
9		421	CA-ON	KIQ	China
10		521	TZ-24	YEK	China
11		659	BR-PR	IVA	Philippines
12		950	GY-DE	GYA	China
13		518	PE-HUC	XLU	China
14		395	MY-14	DNU	Russia
				74 rows	⋮

Database Consoles > postgres@localhost > console

10:63 LF UTF-8 4 spaces ⌂ ⌂