

Lab-4

The screenshot shows the pgAdmin 4 interface. The query editor contains the following SQL statement:

```
1 SELECT UPPER(airline_name) AS airline_name_uppercase FROM airline;
```

The query has been executed successfully. The Data Output pane shows the results in a table with the following columns and rows:

airline_name_uppercase
IPC
PDN
KLE
KHS
YLQ
NGL
0

A status message at the bottom right indicates: "Successfully run. Total query runtime: 80 msec. 50 rows affected."

1 SELECT UPPER(airline_name) AS airline_name_uppercase FROM airline;

The screenshot shows the pgAdmin 4 interface. The query editor contains the following SQL statement:

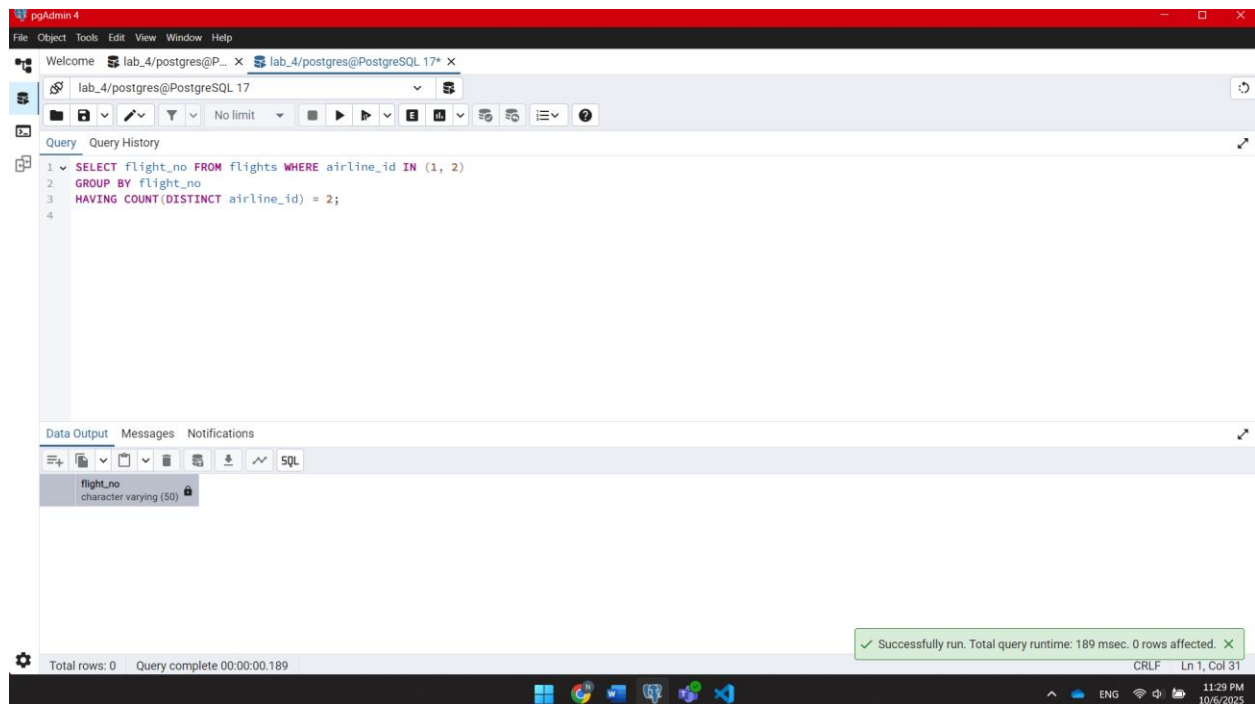
```
1 SELECT REPLACE(airline_name,'Air','Aero') AS updated_name FROM airline;
```

The query has been executed successfully. The Data Output pane shows the results in a table with the following columns and rows:

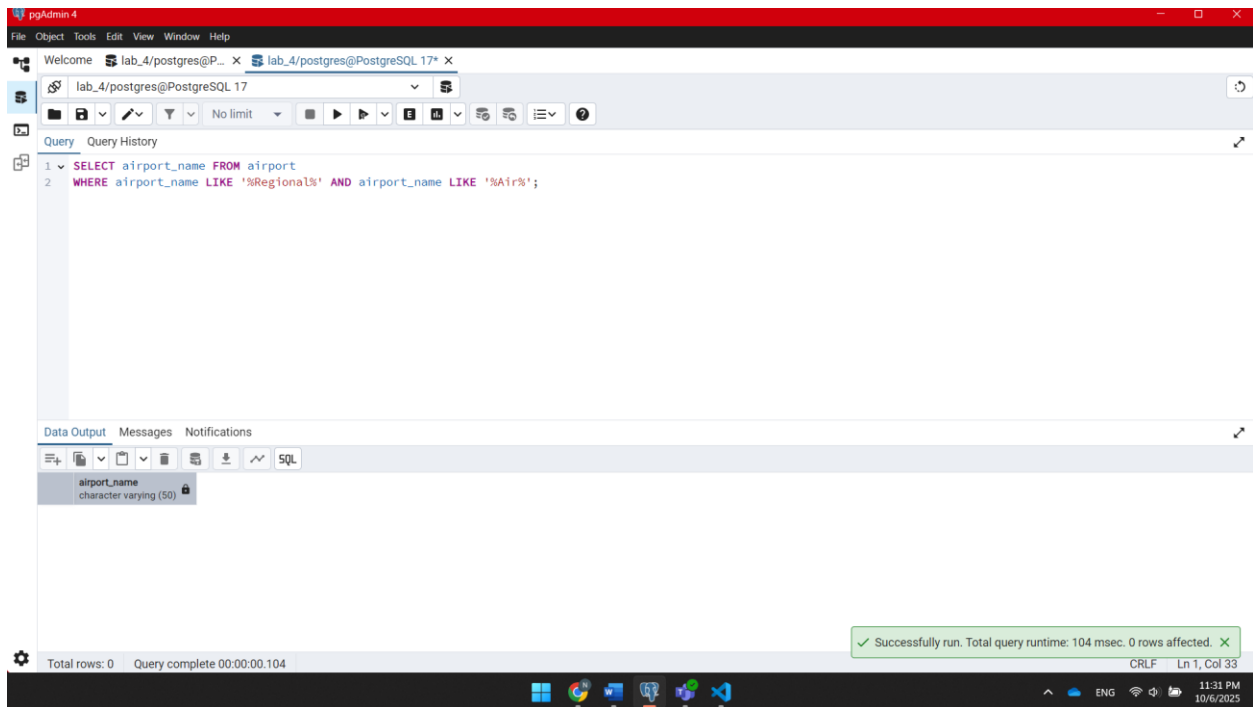
updated_name
IPC
PDN
KLE
KHS
YLQ
NGL
0

A status message at the bottom right indicates: "Successfully run. Total query runtime: 76 msec. 50 rows affected."

**2 SELECT REPLACE(airline_name,'Air','Aero') AS updated_name
FROM airline;**

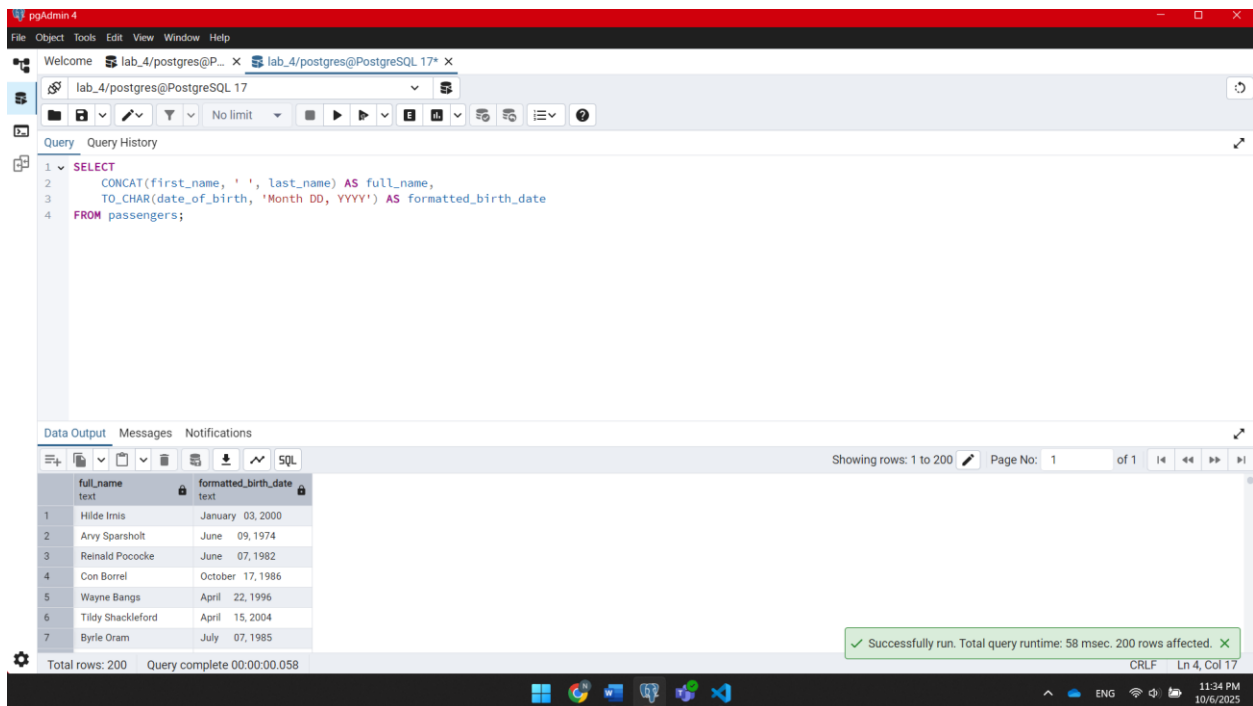


**3 SELECT flight_no FROM flights WHERE airline_id IN (1, 2)
GROUP BY flight_no
HAVING COUNT(DISTINCT airline_id) = 2;**



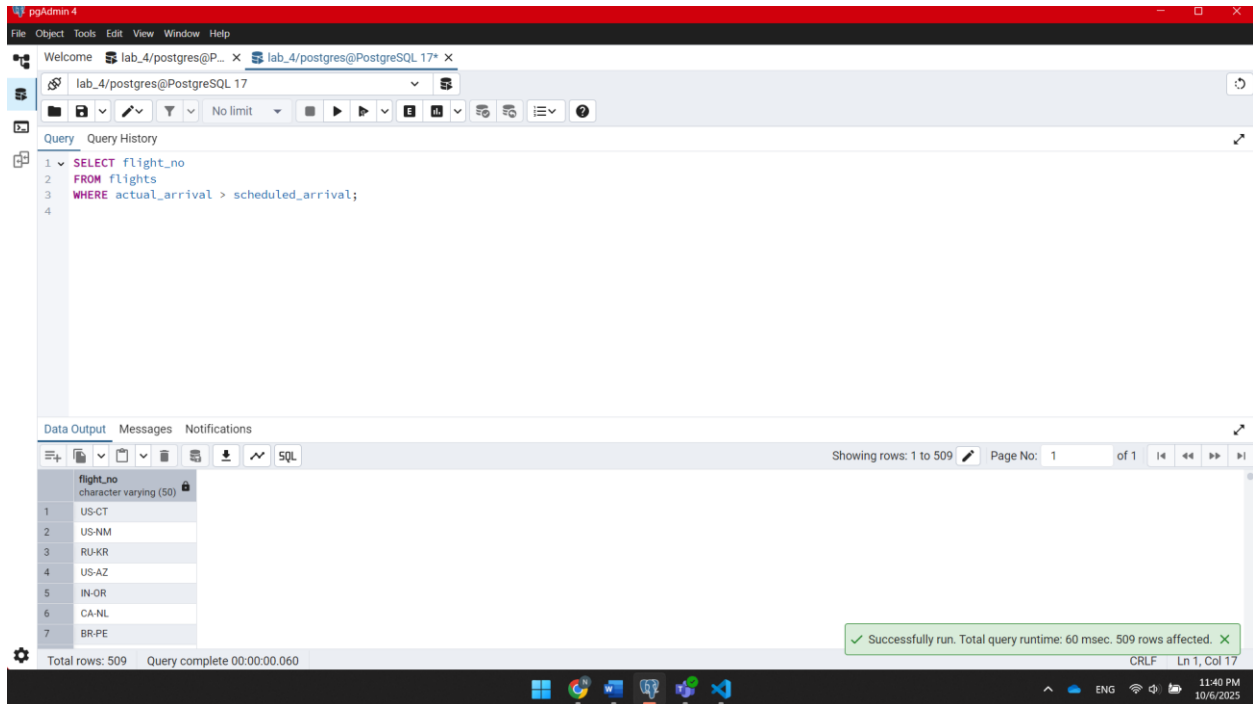
4 SELECT airport_name FROM airport

WHERE airport_name LIKE '%Regional%' AND airport_name LIKE '%Air%';



5 SELECT

**CONCAT(first_name, ' ', last_name) AS full_name,
TO_CHAR(date_of_birth, 'Month DD, YYYY') AS
formatted_birth_date
FROM passengers;**



**6 SELECT flight_no
FROM flights
WHERE actual_arrival > scheduled_arrival;**

The screenshot shows the pgAdmin 4 web interface. The top menu bar includes File, Object, Tools, Edit, View, Window, and Help. The main window displays a SQL query in the 'Query' tab. The query is as follows:

```

1 SELECT CONCAT(first_name, ' ', last_name) AS full_name,
2        EXTRACT(YEAR FROM AGE(date_of_birth)) AS age,
3        CASE
4            WHEN EXTRACT(YEAR FROM AGE(date_of_birth)) BETWEEN 18 AND 35 THEN 'Young'
5            WHEN EXTRACT(YEAR FROM AGE(date_of_birth)) BETWEEN 36 AND 55 THEN 'Adult'
6            ELSE 'Other'
7        END AS age_group
8 FROM passengers;
9

```

Below the query editor, the 'Data Output' tab shows the results of the query. The results are displayed in a table with the following columns: full_name (text), age (numeric), and age_group (text). The table contains 7 rows of data:

	full_name	age	age_group
1	Hilde Imis	25	Young
2	Anvy Sparsholt	51	Adult
3	Reinald Pococke	43	Adult
4	Con Borrel	38	Adult
5	Wayne Bangs	29	Young
6	Tildy Shackleford	21	Young
7	Byrle Oram	40	Adult

At the bottom of the interface, a status bar indicates 'Total rows: 200' and 'Query complete 00:00:00.098'. A green message box at the bottom right states 'Successfully run. Total query runtime: 98 msec. 200 rows affected.' The system tray at the bottom right shows the time as 11:43 PM on 10/6/2025.

```

7 SELECT CONCAT(first_name,' ',last_name) AS full_name,
        EXTRACT(YEAR FROM AGE(date_of_birth)) AS age,
        CASE
            WHEN EXTRACT(YEAR FROM AGE(date_of_birth)) BETWEEN
18 AND 35 THEN 'Young'
            WHEN EXTRACT(YEAR FROM AGE(date_of_birth)) BETWEEN
36 AND 55 THEN 'Adult'
            ELSE 'Other'
        END AS age_group
FROM passengers;

```

The screenshot shows the pgAdmin 4 interface with a SQL query executed. The query is as follows:

```

1 SELECT booking_id, price,
2 CASE
3     WHEN price < 100 THEN 'Cheap'
4     WHEN price BETWEEN 100 AND 300 THEN 'Medium'
5     ELSE 'Expensive'
6 END AS price_category
7 FROM booking;
8

```

The results are displayed in a table with the following columns: booking_id [PK] integer, price numeric(7,2), and price_category text. The table contains 7 rows of data.

booking_id [PK] integer	price numeric(7,2)	price_category text
1	7462.13	Expensive
2	4216.60	Expensive
3	5782.37	Expensive
4	102.96	Medium
5	6711.04	Expensive
6	7813.55	Expensive
7	1346.71	Expensive

At the bottom of the interface, a status bar indicates: Total rows: 500, Query complete 00:00:00.177. A green message box states: Successfully run. Total query runtime: 177 msec. 500 rows affected.

```

8 SELECT booking_id, price,
CASE
    WHEN price < 100 THEN 'Cheap'
    WHEN price BETWEEN 100 AND 300 THEN 'Medium'
    ELSE 'Expensive'
END AS price_category
FROM booking;

```

The screenshot shows the pgAdmin 4 web interface. The top menu bar includes File, Object, Tools, Edit, View, Window, and Help. The main toolbar contains various icons for database operations. The central pane displays a SQL query:

```
1 SELECT
2     airline_country,
3     COUNT(*) AS airline_count
4 FROM airline
5 GROUP BY airline_country
6 ORDER BY airline_count DESC;
```

Below the query editor, the 'Data Output' tab is active, showing a table with two columns: 'airline_country' (character varying (50)) and 'airline_count' (bigint). The table contains 7 rows of data:

airline_country	airline_count
China	10
Poland	5
Russia	4
Portugal	3
Brazil	3
France	3
Indonesia	2

At the bottom of the interface, a status bar indicates 'Total rows: 26' and 'Query complete 00:00:00.145'. A green message box states: 'Successfully run. Total query runtime: 145 msec. 26 rows affected. X'. The bottom right corner shows the system tray with icons for Windows, taskbar, and system clock (11:46 PM 10/6/2025).

9 SELECT

airline_country,

COUNT(*) AS airline_count

FROM airline

GROUP BY airline_country

ORDER BY airline_count DESC;

pgAdmin 4

File Object Tools Edit View Window Help

Welcome lab_4/postgres@P... x lab_4/postgres@PostgreSQL 17* x

lab_4/postgres@PostgreSQL 17

No limit

Query Query History

```
1 SELECT flight_no, scheduled_arrival, actual_arrival
2 FROM flights
3 WHERE actual_arrival > scheduled_arrival;
4
```

Data Output Messages Notifications

Showing rows: 1 to 509 Page No: 1 of 1

	flight_no character varying (50)	scheduled_arrival date	actual_arrival date
1	US-CT	2023-09-08	2023-11-07
2	US-NM	2023-09-17	2024-01-23
3	RU-KR	2023-03-18	2023-04-07
4	US-AZ	2023-04-08	2023-08-01
5	IN-OR	2023-09-19	2023-12-03
6	CA-NL	2023-06-04	2023-11-17
7	BR-PE	2023-06-02	2023-11-09

✓ Successfully run. Total query runtime: 111 msec. 509 rows affected. X

Total rows: 509 Query complete 00:00:00.111

CRLF Ln 1, Col 17

11:47 PM 10/6/2025

10 SELECT flight_no, scheduled_arrival, actual_arrival

FROM flights

WHERE actual_arrival > scheduled_arrival;