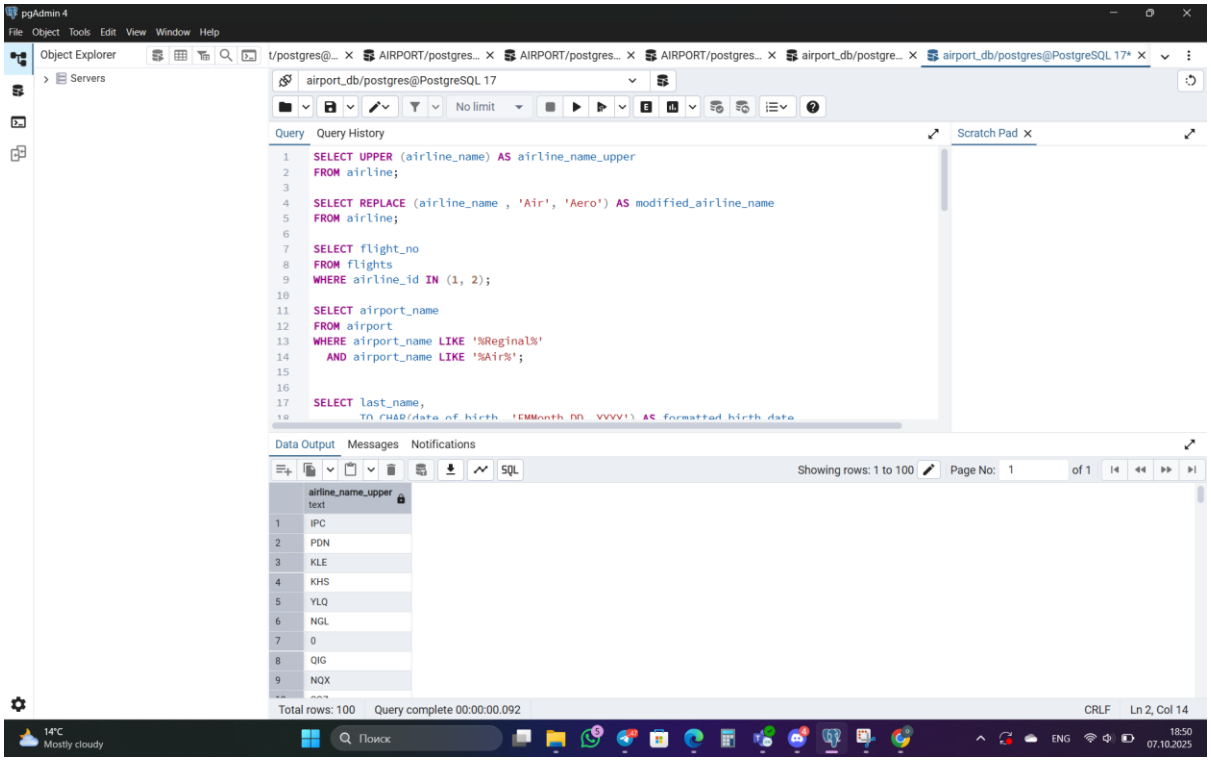
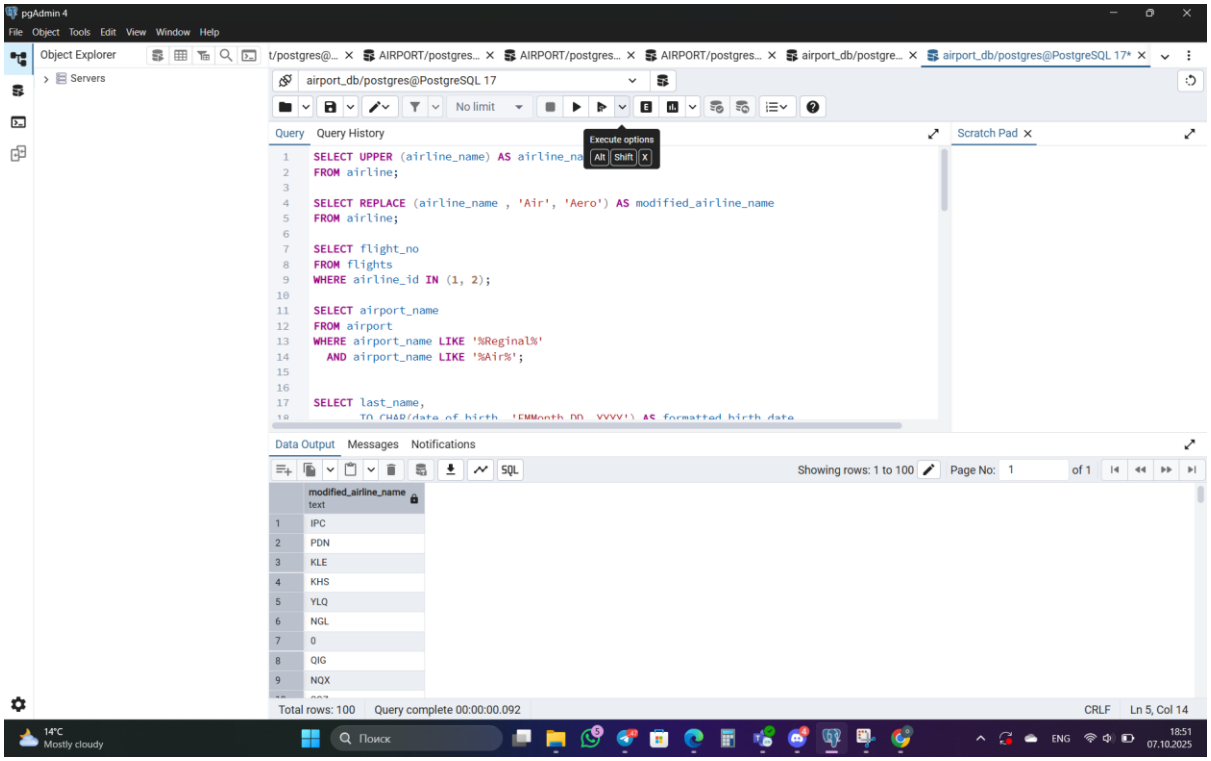
LAB WORK 4. Nurlan Olzhas 10 tasks

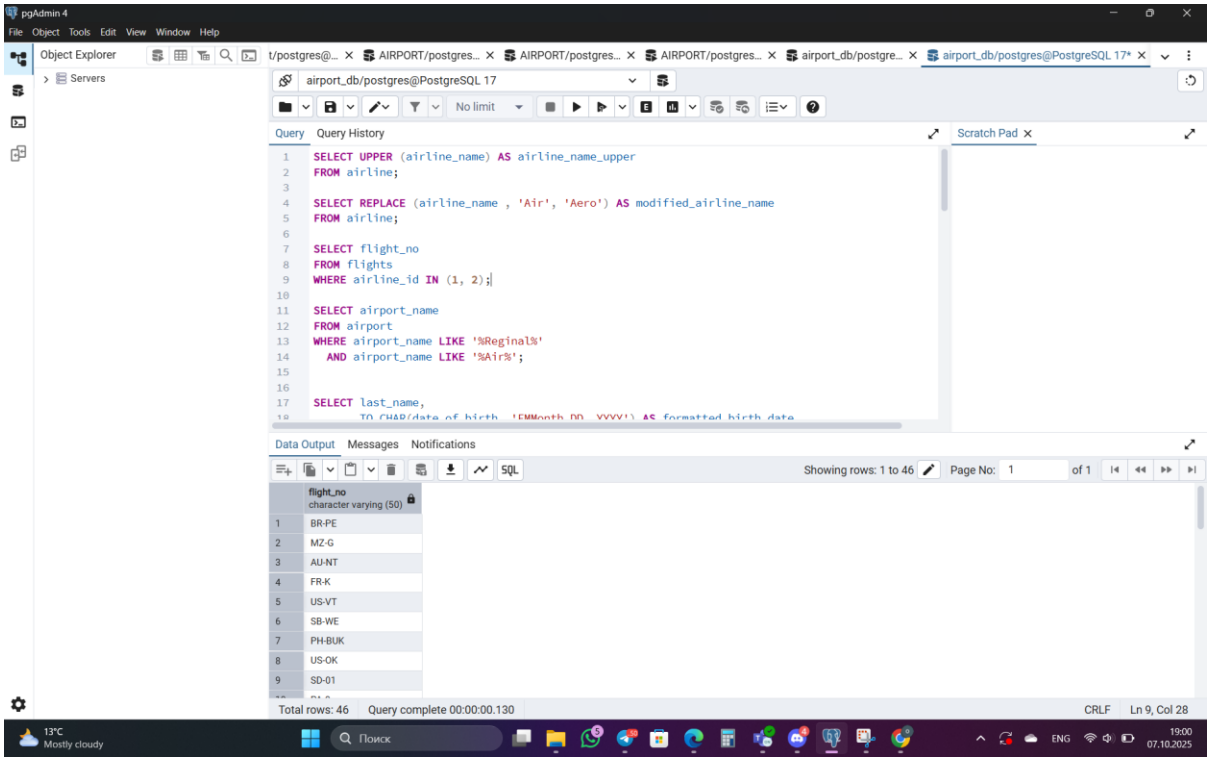
1.



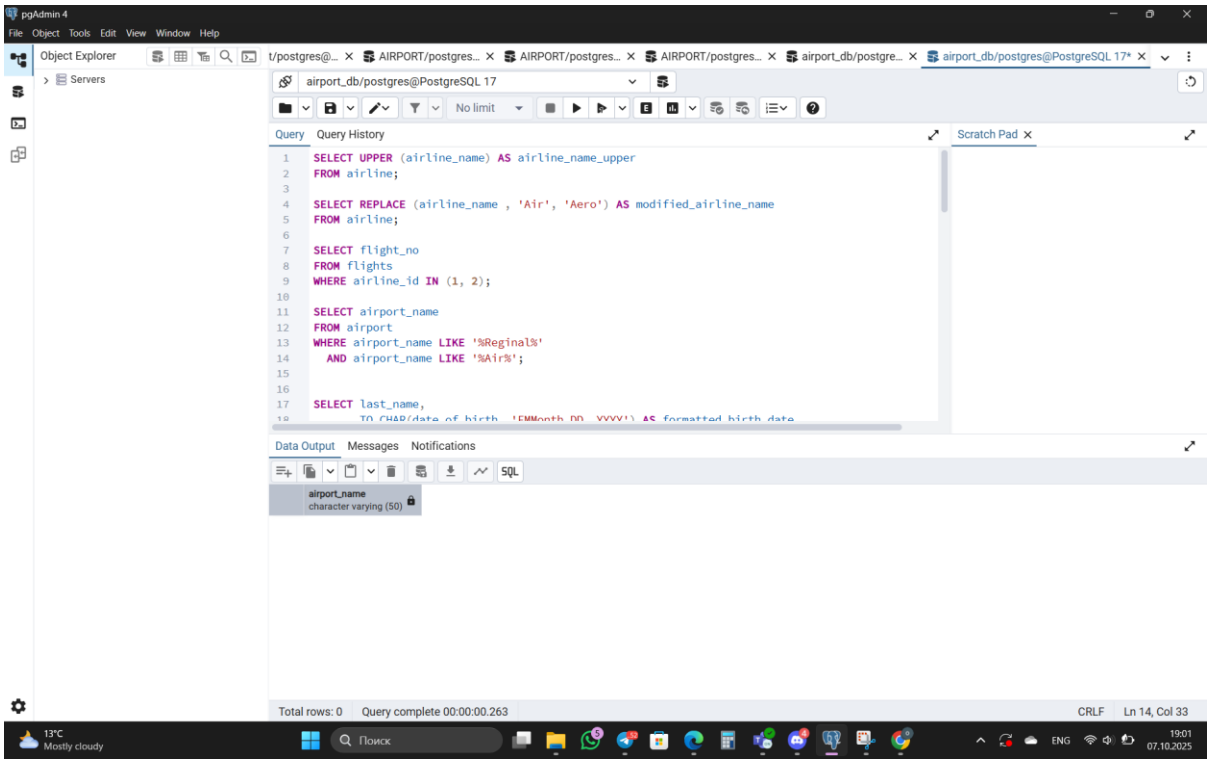

2.



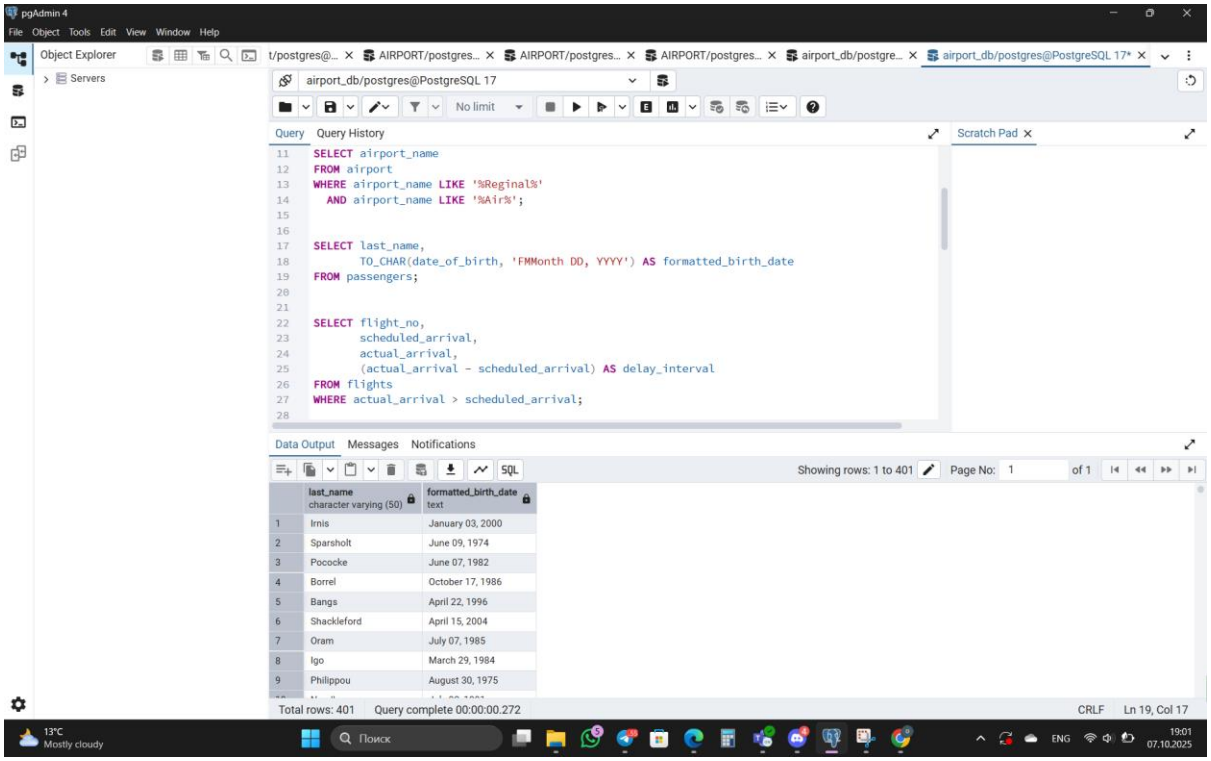
3.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
No limit
Query Query History
Scratch Pad
SELECT UPPER (airline_name) AS airline_name_upper
FROM airline;
SELECT REPLACE (airline_name , 'Air', 'Aero') AS modified_airline_name
FROM airline;
SELECT flight_no
FROM flights
WHERE airline_id IN (1, 2);
SELECT airport_name
FROM airport
WHERE airport_name LIKE '%Reginal%'
AND airport_name LIKE '%Air%';
SELECT last_name,
Data Output Messages Notifications
Showing rows: 1 to 46
Page No: 1 of 1
flight_no
character varying (50)
BR-PE
MZ-G
AU-NT
FR-K
US-VT
SB-WE
PH-BUK
US-OK
SD-01
Total rows: 46
Query complete 00:00:00.130
CRLF
Ln 9, Col 28
13°C
Mostly cloudy
Поиск
ENG
19:00
07.10.2025

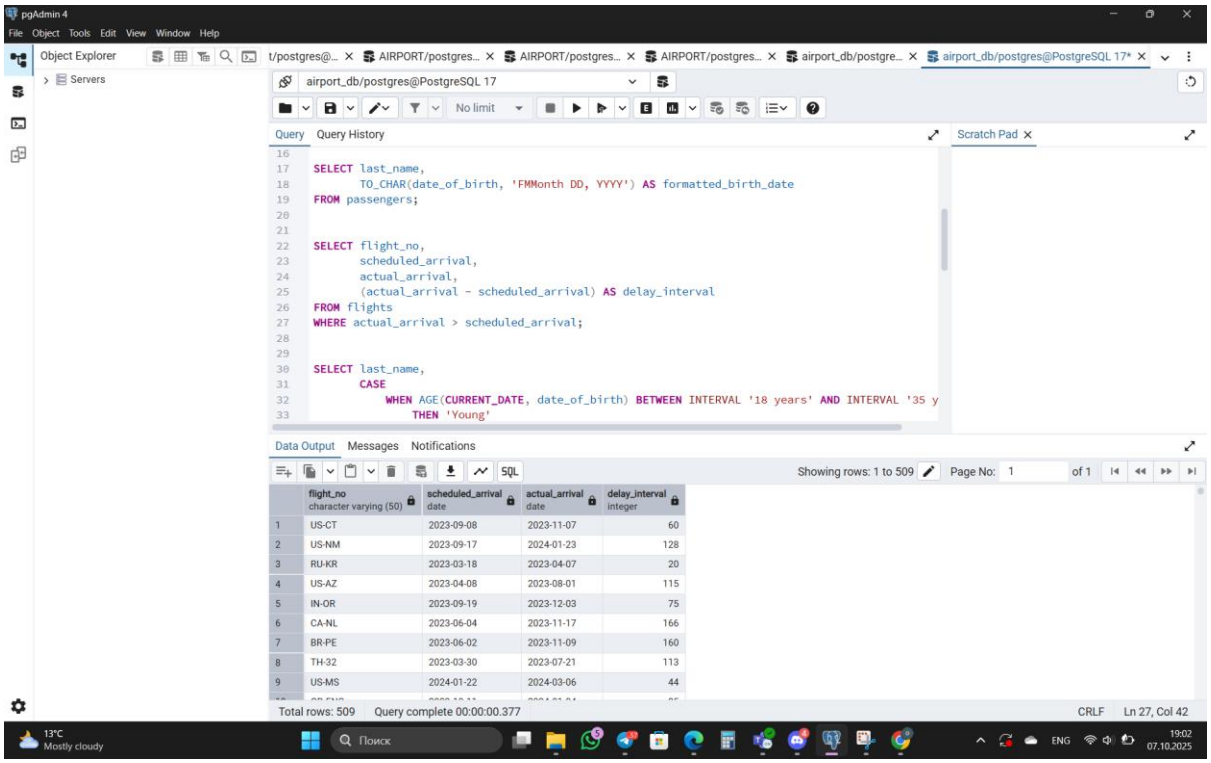
4.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
No limit
Query Query History
Scratch Pad
SELECT UPPER (airline_name) AS airline_name_upper
FROM airline;
SELECT REPLACE (airline_name , 'Air', 'Aero') AS modified_airline_name
FROM airline;
SELECT flight_no
FROM flights
WHERE airline_id IN (1, 2);
SELECT airport_name
FROM airport
WHERE airport_name LIKE '%Reginal%'
AND airport_name LIKE '%Air%';
SELECT last_name,
Data Output Messages Notifications
airport_name
character varying (50)
Total rows: 0
Query complete 00:00:00.263
CRLF
Ln 14, Col 33
13°C
Mostly cloudy
Поиск
ENG
19:01
07.10.2025

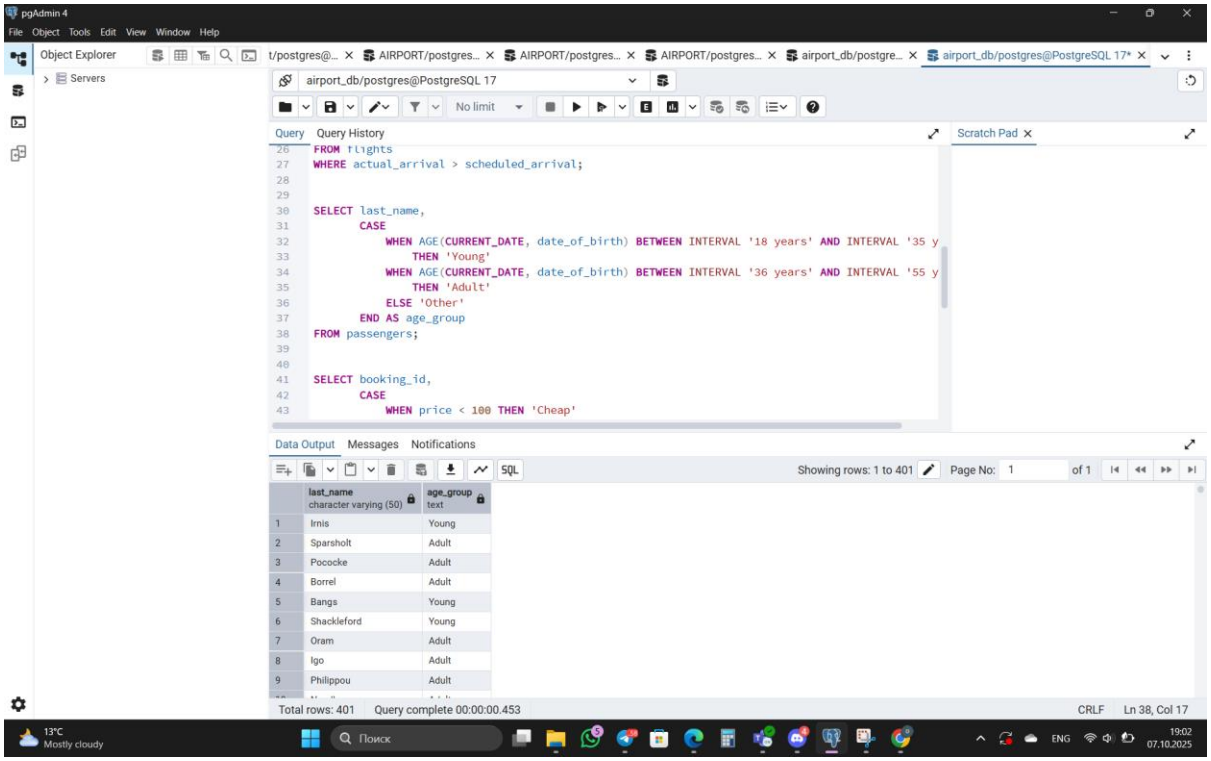
5.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
No limit
Query Query History
Scratch Pad
SELECT airport_name
FROM airport
WHERE airport_name LIKE '%Reginal%'
AND airport_name LIKE '%Air%';
SELECT last_name,
TO_CHAR(date_of_birth, 'FMMonth DD, YYYY') AS formatted_birth_date
FROM passengers;
SELECT flight_no,
scheduled_arrival,
actual_arrival,
(actual_arrival - scheduled_arrival) AS delay_interval
FROM flights
WHERE actual_arrival > scheduled_arrival;
Data Output Messages Notifications
Showing rows: 1 to 401
Page No: 1 of 1
last_name character varying (50)
formatted_birth_date text
1 Irnis January 03, 2000
2 Sparsholt June 09, 1974
3 Pococke June 07, 1982
4 Borrel October 17, 1986
5 Bangs April 22, 1996
6 Shackleford April 15, 2004
7 Oram July 07, 1985
8 Igo March 29, 1984
9 Philippou August 30, 1975
Total rows: 401
Query complete 00:00:00.272
CRLF
Ln 19, Col 17
13°C Mostly cloudy
Поиск
ENG
19:01 07.10.2025

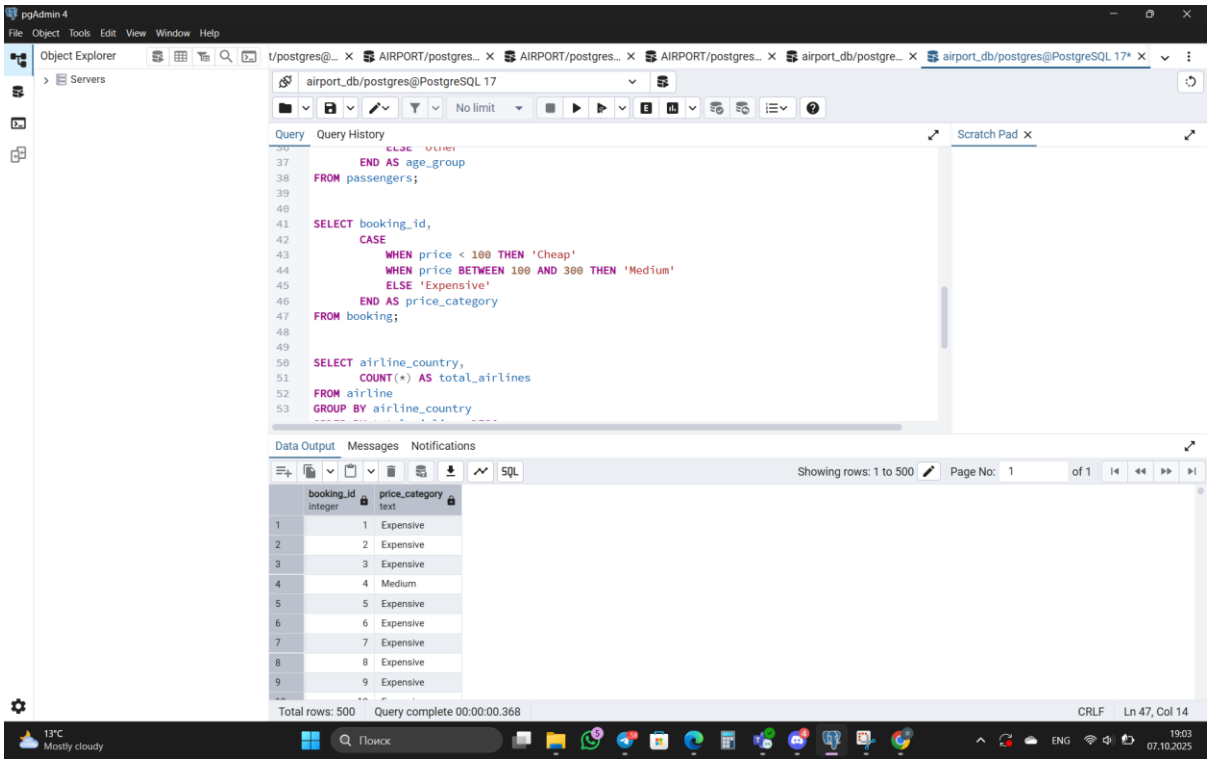
6.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
No limit
Query Query History
Scratch Pad
SELECT last_name,
TO_CHAR(date_of_birth, 'FMMonth DD, YYYY') AS formatted_birth_date
FROM passengers;
SELECT flight_no,
scheduled_arrival,
actual_arrival,
(actual_arrival - scheduled_arrival) AS delay_interval
FROM flights
WHERE actual_arrival > scheduled_arrival;
SELECT last_name,
CASE
WHEN AGE(CURRENT_DATE, date_of_birth) BETWEEN INTERVAL '18 years' AND INTERVAL '35 y
THEN 'Young'
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
delay_interval integer
1 US-CT 2023-09-08 2023-11-07 60
2 US-NM 2023-09-17 2024-01-23 128
3 RU-KR 2023-03-18 2023-04-07 20
4 US-AZ 2023-04-08 2023-08-01 115
5 IN-OR 2023-09-19 2023-12-03 75
6 CA-NL 2023-06-04 2023-11-17 166
7 BR-PE 2023-06-02 2023-11-09 160
8 TH-32 2023-03-30 2023-07-21 113
9 US-MS 2024-01-22 2024-03-06 44
Total rows: 509
Query complete 00:00:00.377
CRLF
Ln 27, Col 42
13°C Mostly cloudy
Поиск
ENG
19:02 07.10.2025

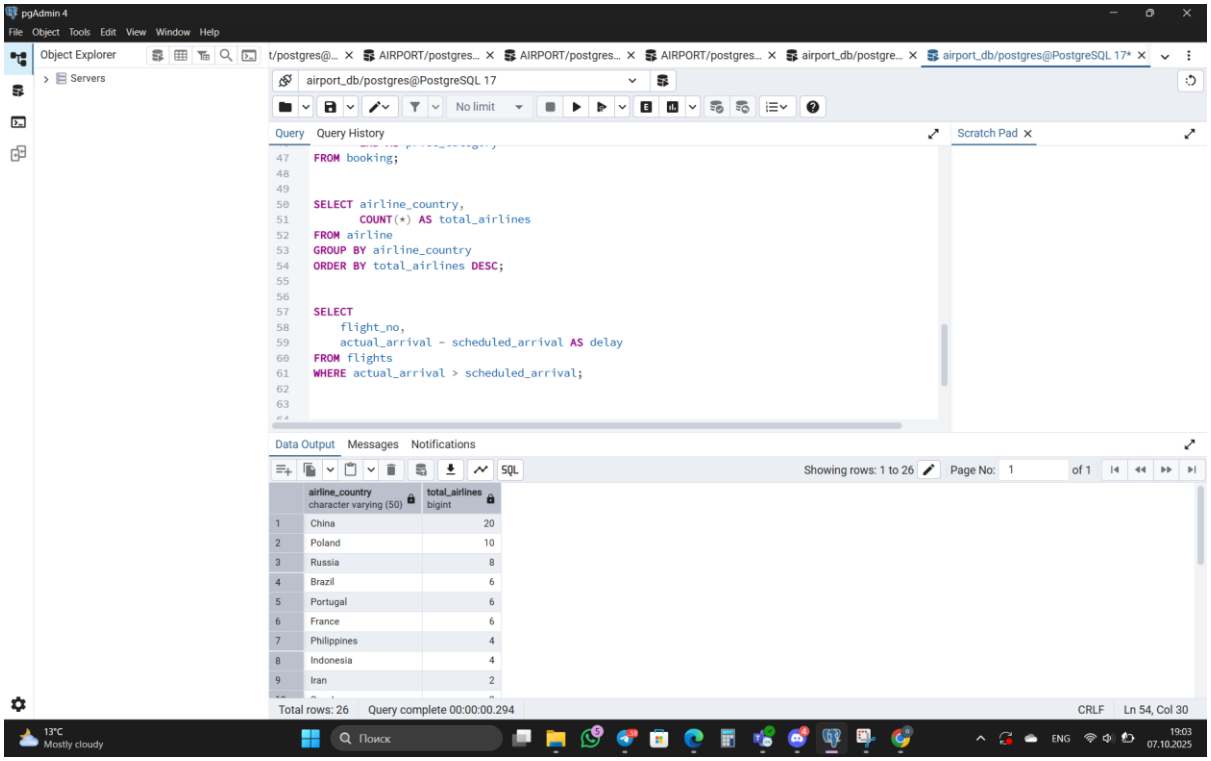
7.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
Query Query History
Scratch Pad
FROM flights
WHERE actual_arrival > scheduled_arrival;
SELECT last_name,
CASE
WHEN AGE(CURRENT_DATE, date_of_birth) BETWEEN INTERVAL '18 years' AND INTERVAL '35 y
THEN 'Young'
WHEN AGE(CURRENT_DATE, date_of_birth) BETWEEN INTERVAL '36 years' AND INTERVAL '55 y
THEN 'Adult'
ELSE 'Other'
END AS age_group
FROM passengers;
SELECT booking_id,
CASE
WHEN price < 100 THEN 'Cheap'
Data Output Messages Notifications
Showing rows: 1 to 401
Page No: 1
of 1
last_name character varying (50)
age_group text
1 Irnis Young
2 Sparsholt Adult
3 Pococke Adult
4 Borrel Adult
5 Bangs Young
6 Shackleford Young
7 Oram Adult
8 Igo Adult
9 Philippou Adult
Total rows: 401
Query complete 00:00:00.453
CRLF
Ln 38, Col 17
13°C
Mostly cloudy
Поиск
ENG
19:02
07.10.2025

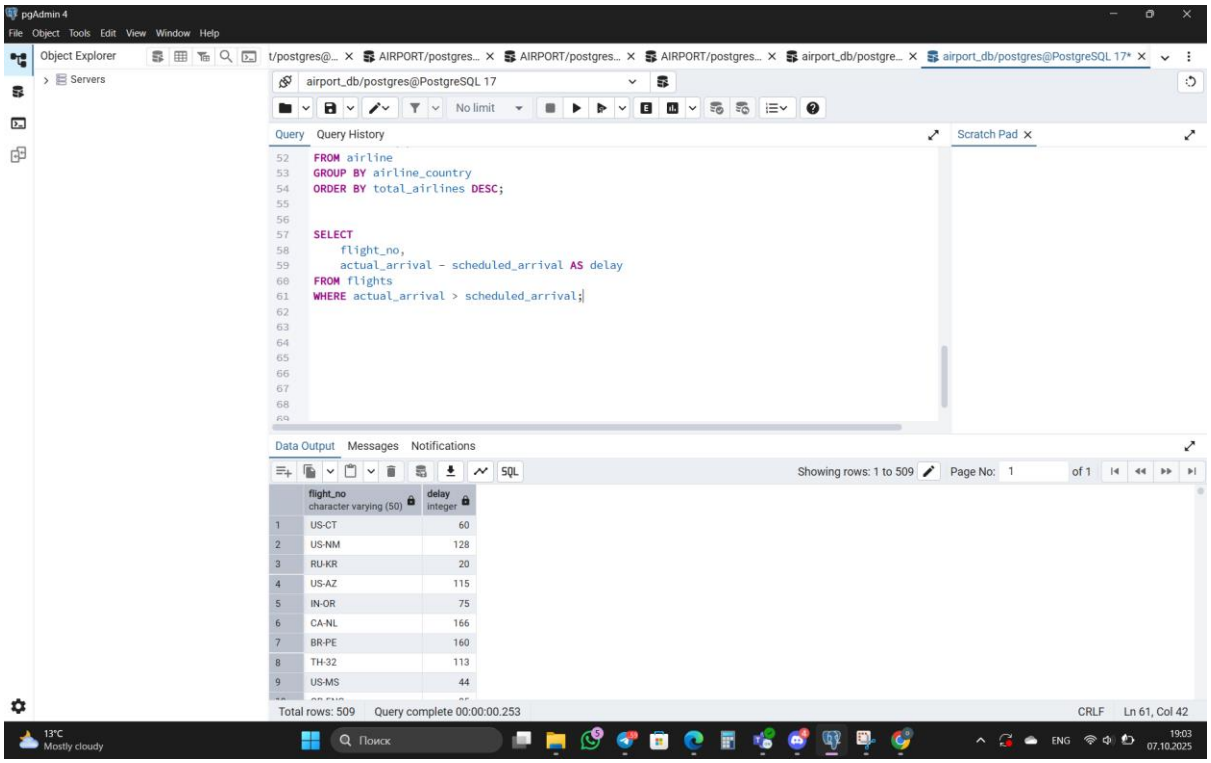
8.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
Query Query History
Scratch Pad
END AS age_group
FROM passengers;
SELECT booking_id,
CASE
WHEN price < 100 THEN 'Cheap'
WHEN price BETWEEN 100 AND 300 THEN 'Medium'
ELSE 'Expensive'
END AS price_category
FROM booking;
SELECT airline_country,
COUNT(*) AS total_airlines
FROM airline
GROUP BY airline_country
Data Output Messages Notifications
Showing rows: 1 to 500
Page No: 1
of 1
booking_id integer
price_category text
1 1 Expensive
2 2 Expensive
3 3 Expensive
4 4 Medium
5 5 Expensive
6 6 Expensive
7 7 Expensive
8 8 Expensive
9 9 Expensive
Total rows: 500
Query complete 00:00:00.368
CRLF
Ln 47, Col 14
13°C
Mostly cloudy
Поиск
ENG
19:03
07.10.2025

9.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
No limit
Query Query History
Scratch Pad
FROM booking;
SELECT airline_country,
COUNT(*) AS total_airlines
FROM airline
GROUP BY airline_country
ORDER BY total_airlines DESC;
SELECT
flight_no,
actual_arrival - scheduled_arrival AS delay
FROM flights
WHERE actual_arrival > scheduled_arrival;
Data Output Messages Notifications
Showing rows: 1 to 26
Page No: 1 of 1
airline_country character varying (50)
total_airlines bigint
1 China 20
2 Poland 10
3 Russia 8
4 Brazil 6
5 Portugal 6
6 France 6
7 Philippines 4
8 Indonesia 4
9 Iran 2
Total rows: 26
Query complete 00:00:00.294
CRLF
Ln 54, Col 30
13°C
Mostly cloudy
Поиск
ENG
19:03
07.10.2025

10.


pgAdmin 4
File Object Tools Edit View Window Help
Object Explorer
Servers
airport_db/postgres@PostgreSQL 17
No limit
Query Query History
Scratch Pad
FROM airline
GROUP BY airline_country
ORDER BY total_airlines DESC;
SELECT
flight_no,
actual_arrival - scheduled_arrival AS delay
FROM flights
WHERE actual_arrival > scheduled_arrival;
Data Output Messages Notifications
Showing rows: 1 to 509
Page No: 1 of 1
flight_no character varying (50)
delay integer
1 US-CT 60
2 US-NM 128
3 RU-KR 20
4 US-AZ 115
5 IN-OR 75
6 CA-NL 166
7 BR-PE 160
8 TH-32 113
9 US-MS 44
Total rows: 509
Query complete 00:00:00.253
CRLF
Ln 61, Col 42
13°C
Mostly cloudy
Поиск
ENG
19:03
07.10.2025