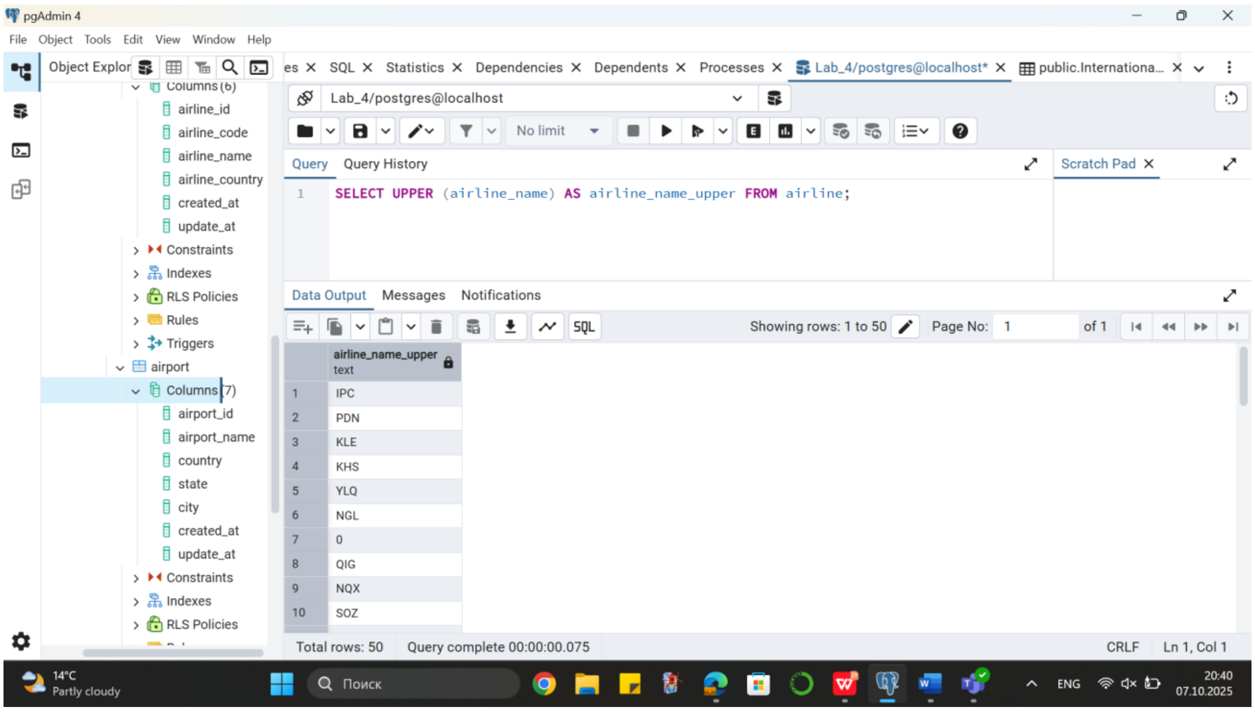
Laboratory work 4

1. Retrieve all airline names in uppercase.

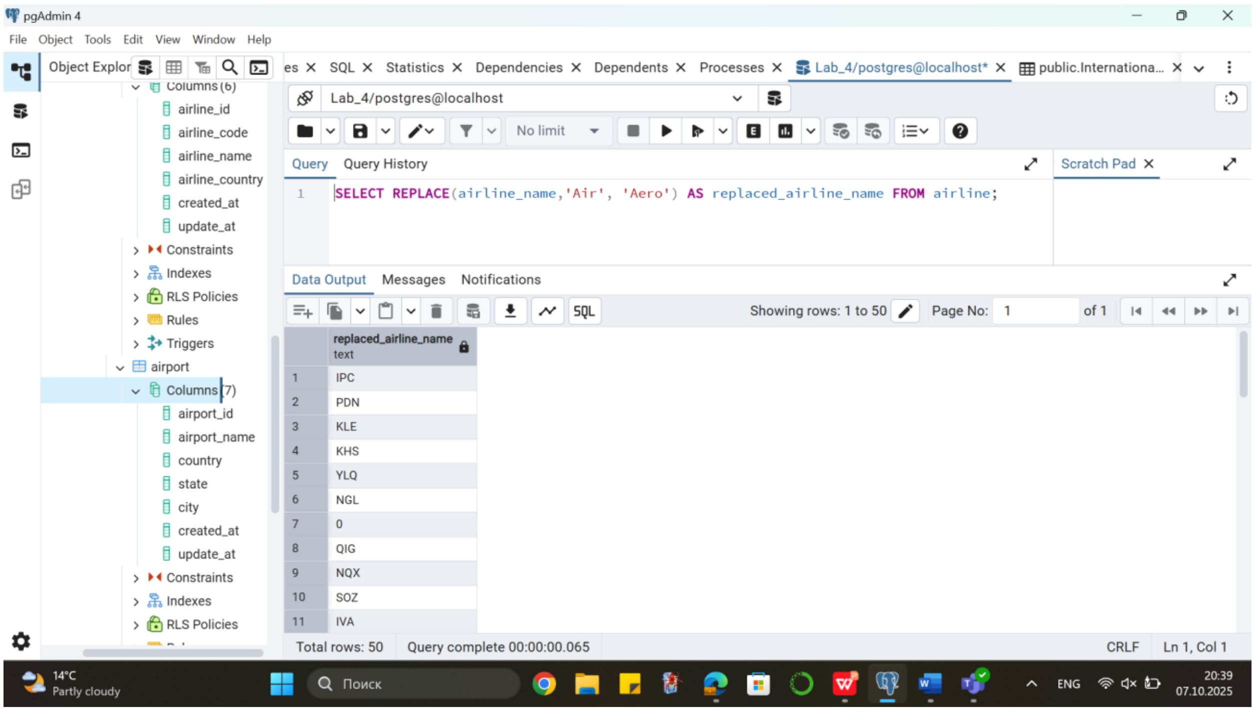


```
SELECT UPPER (airline_name) AS airline_name_upper FROM airline;
```

	airline_name_upper text
1	IPC
2	PDN
3	KLE
4	KHS
5	YLQ
6	NGL
7	0
8	QIG
9	NQX
10	SOZ

Total rows: 50 Query complete 00:00:00.075

2. Replace any occurrence of the word "Air" in airline names with "Aero".

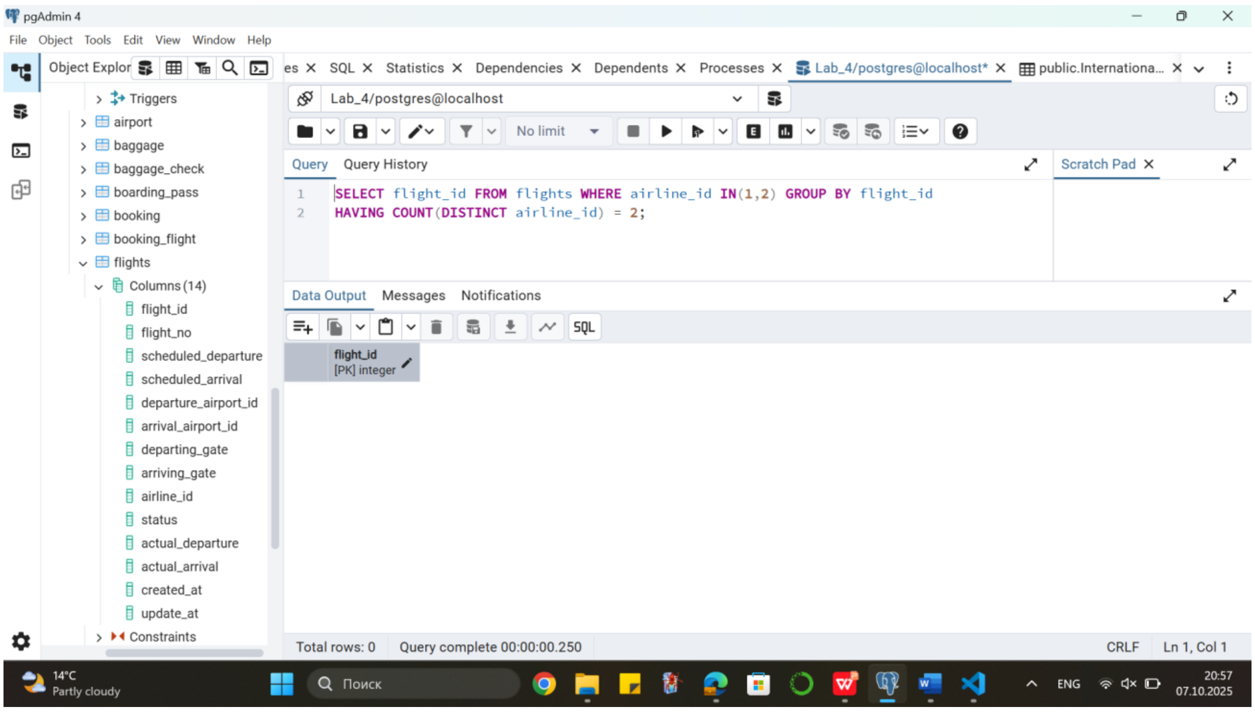


```
SELECT REPLACE(airline_name,'Air', 'Aero') AS replaced_airline_name FROM airline;
```

	replaced_airline_name text
1	IPC
2	PDN
3	KLE
4	KHS
5	YLQ
6	NGL
7	0
8	QIG
9	NQX
10	SOZ
11	IVA

Total rows: 50 Query complete 00:00:00.065

3. Fing all flight numbers that coordinates with both airline 1 and airline 2.

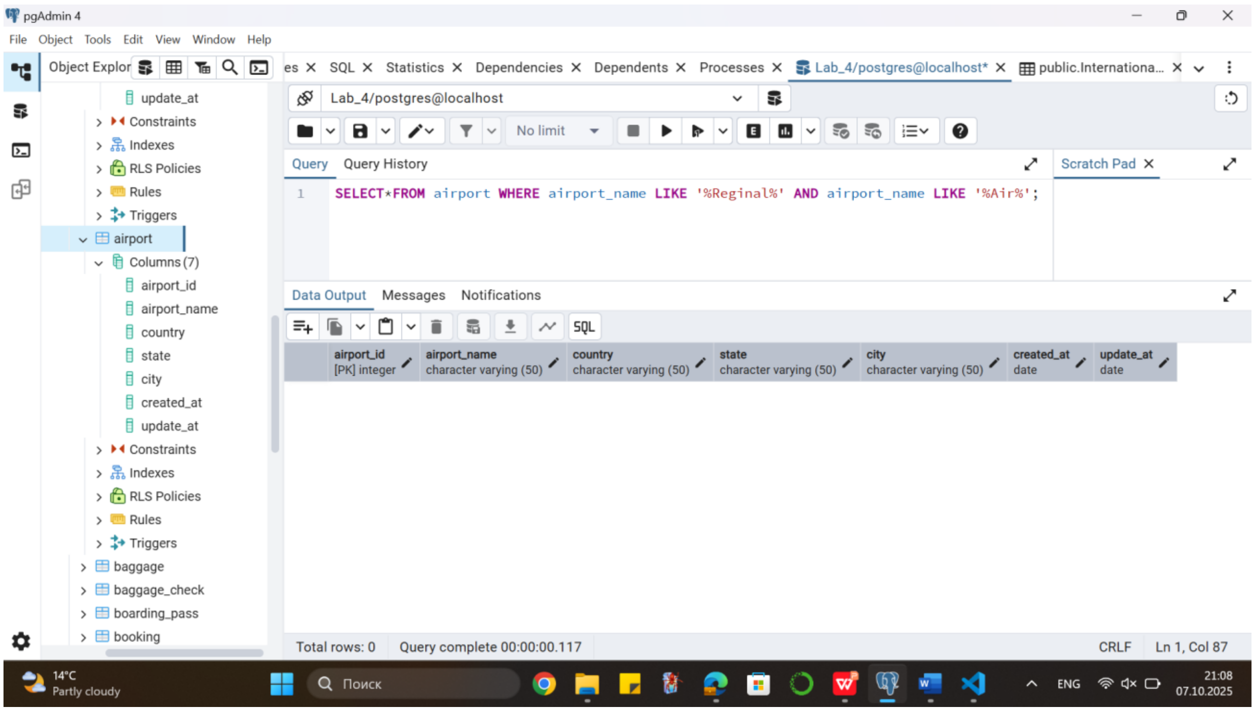


```
SELECT flight_id FROM flights WHERE airline_id IN(1,2) GROUP BY flight_id
HAVING COUNT(DISTINCT airline_id) = 2;
```

```
flight_id
[PK] integer
```

Total rows: 0 Query complete 00:00:00.250

4. Retrieve airports that contain the word "Reginal" and "Air" in their names.

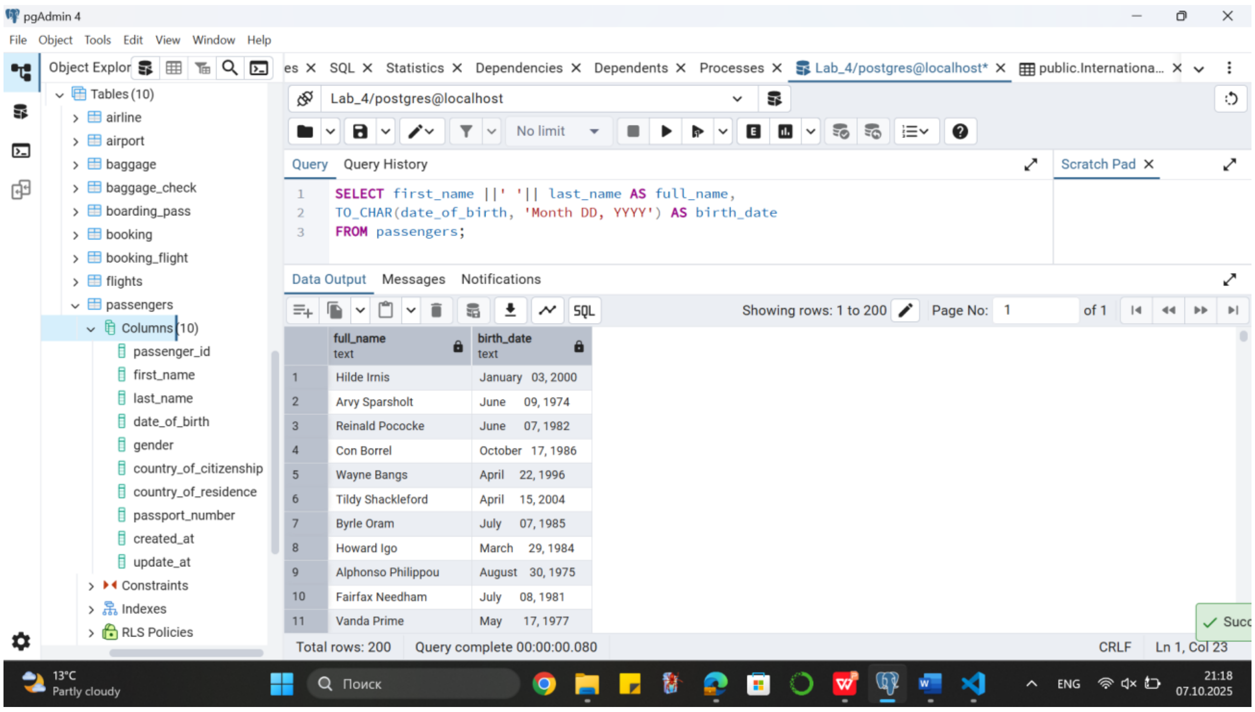


```
SELECT*FROM airport WHERE airport_name LIKE '%Reginal%' AND airport_name LIKE '%Air%';
```

```
airport_id    airport_name            country                 state                   city                    created_at  update_at
[PK] integer  character varying (50)  character varying (50)  character varying (50)  character varying (50)  date        date
```

Total rows: 0 Query complete 00:00:00.117

5. Retrieve passenger names and format their birth dates as 'Month DD, YYYY'..o



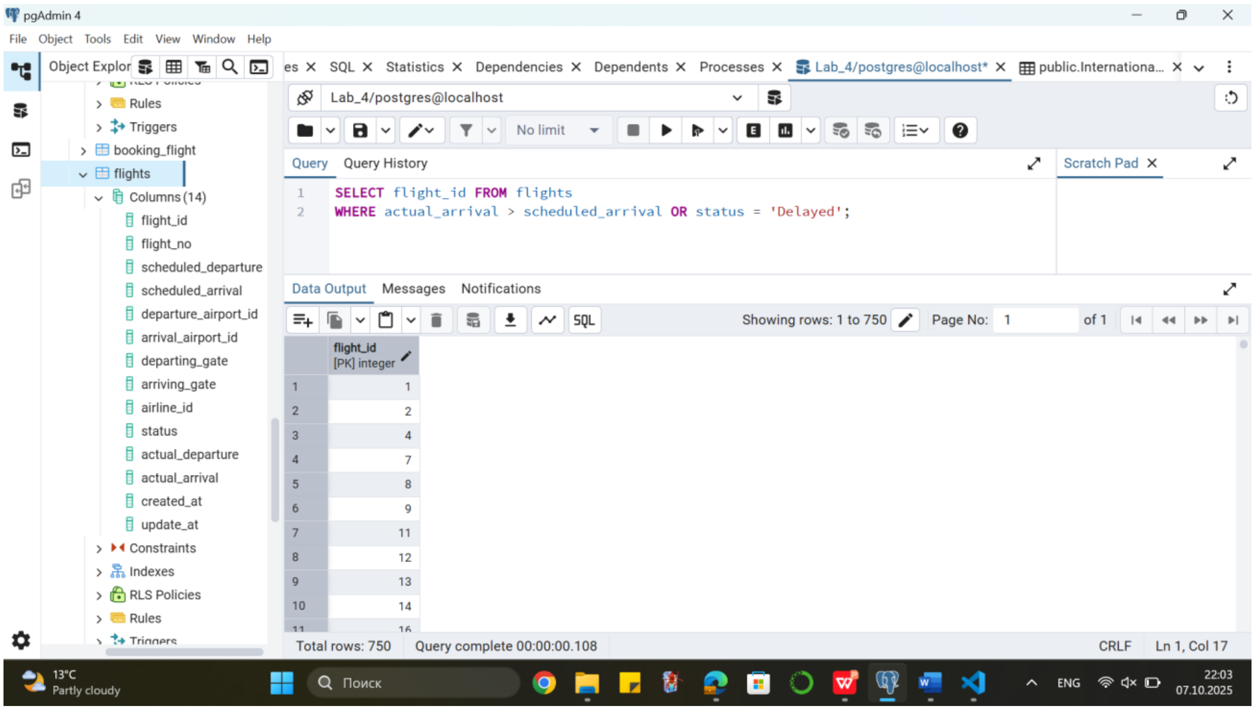
```sql
SELECT first_name ||' '|| last_name AS full_name,
TO_CHAR(date_of_birth, 'Month DD, YYYY') AS birth_date
FROM passengers;
```

Showing rows: 1 to 200   Page No: 1 of 1

	full_name text	birth_date text
1	Hilde Irnis	January 03, 2000
2	Arvy Sparsholt	June 09, 1974
3	Reinald Pococke	June 07, 1982
4	Con Borrel	October 17, 1986
5	Wayne Bangs	April 22, 1996
6	Tildy Shackleford	April 15, 2004
7	Byrle Oram	July 07, 1985
8	Howard Igo	March 29, 1984
9	Alphonso Philippou	August 30, 1975
10	Fairfax Needham	July 08, 1981
11	Vanda Prime	May 17, 1977

Total rows: 200   Query complete 00:00:00.080

6. Find flight numbers that have been delayed based on the actual arrival time.



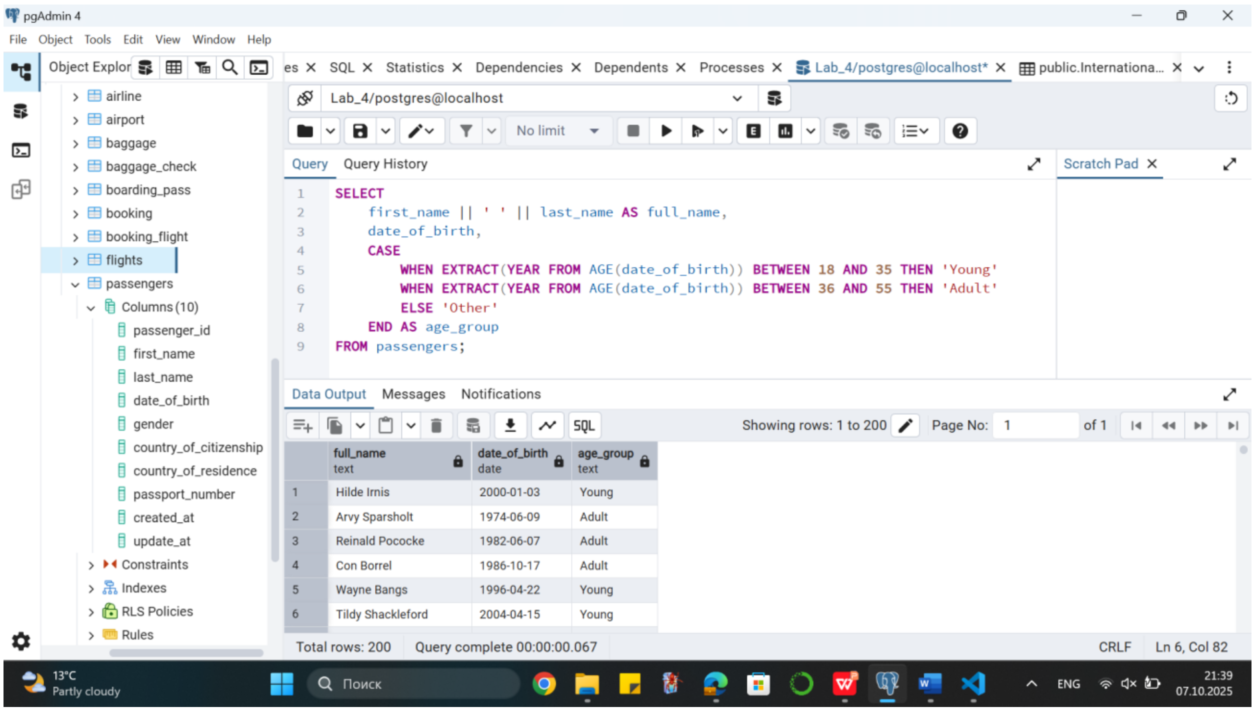
```sql
SELECT flight_id FROM flights
WHERE actual_arrival > scheduled_arrival OR status = 'Delayed';
```

Showing rows: 1 to 750   Page No: 1 of 1

	flight_id [PK] integer
1	1
2	2
3	4
4	7
5	8
6	9
7	11
8	12
9	13
10	14
11	16

Total rows: 750   Query complete 00:00:00.108

7. Create a query that divides passengers into age groups like ‘Young’ and ‘Adult’ based on their birth date. Young passengers age between 18 and 35, Adult passengers age between 36 and 55.



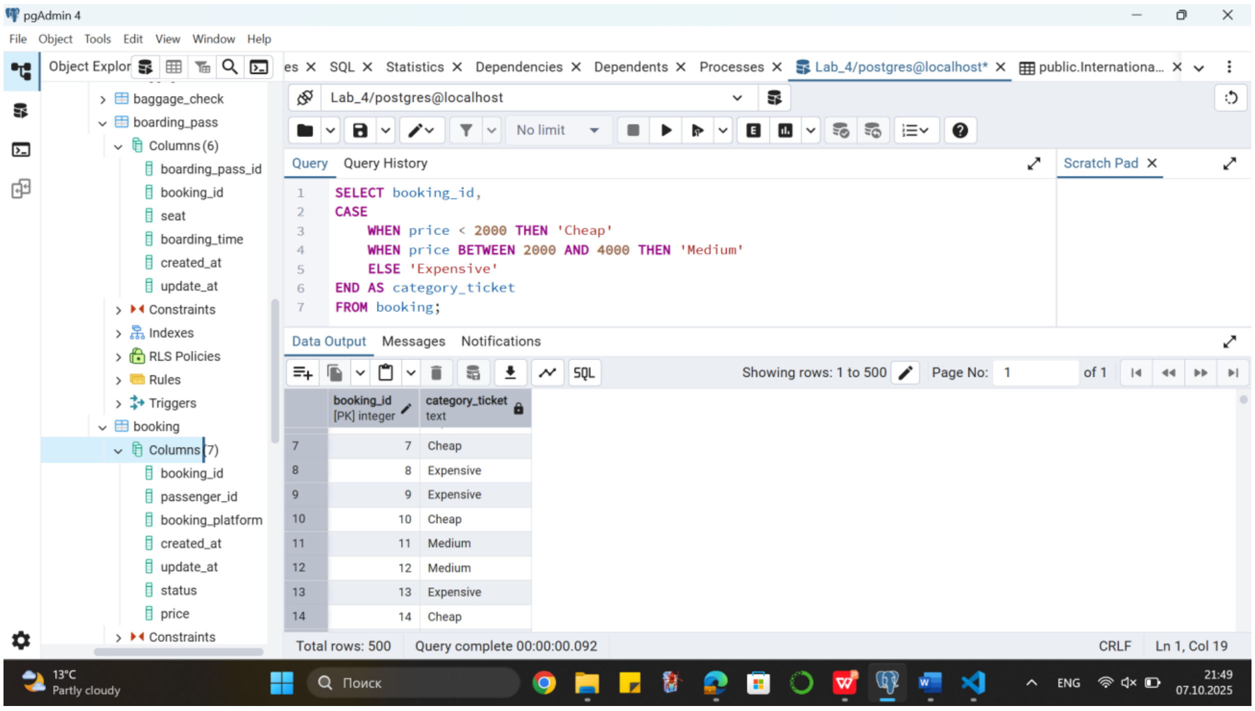
```sql
SELECT
    first_name || ' ' || last_name AS full_name,
    date_of_birth,
    CASE
        WHEN EXTRACT(YEAR FROM AGE(date_of_birth)) BETWEEN 18 AND 35 THEN 'Young'
        WHEN EXTRACT(YEAR FROM AGE(date_of_birth)) BETWEEN 36 AND 55 THEN 'Adult'
        ELSE 'Other'
    END AS age_group
FROM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

Showing rows: 1 to 200 Page No: 1 of 1

	full_name text	date_of_birth date	age_group text
1	Hilde Irnis	2000-01-03	Young
2	Arvy Sparsholt	1974-06-09	Adult
3	Reinald Pococke	1982-06-07	Adult
4	Con Borrel	1986-10-17	Adult
5	Wayne Bangs	1996-04-22	Young
6	Tildy Shackleford	2004-04-15	Young

Total rows: 200 Query complete 00:00:00.067

8. Create a query that categorizes ticket prices based on their price as "Cheap," "Medium" or "Expensive."



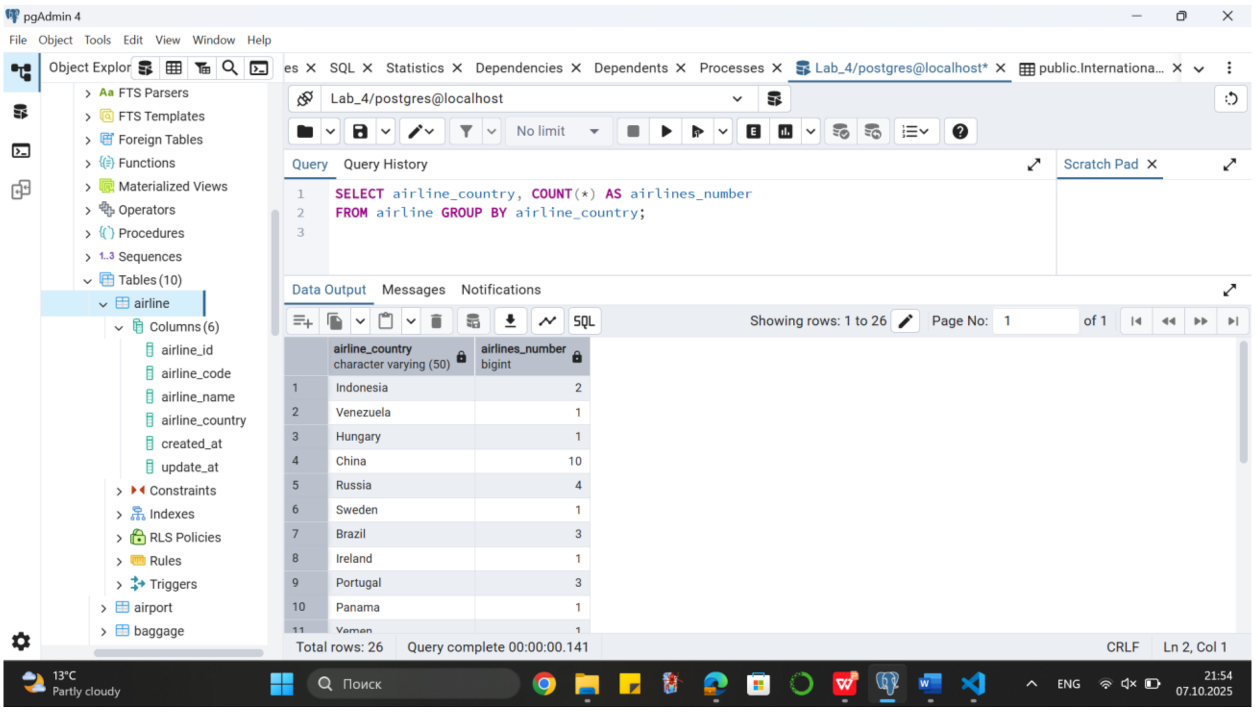
```sql
SELECT booking_id,
CASE
    WHEN price < 2000 THEN 'Cheap'
    WHEN price BETWEEN 2000 AND 4000 THEN 'Medium'
    ELSE 'Expensive'
END AS category_ticket
FROM booking;
```

Showing rows: 1 to 500 Page No: 1 of 1

	booking_id [PK] integer	category_ticket text
7	7	Cheap
8	8	Expensive
9	9	Expensive
10	10	Cheap
11	11	Medium
12	12	Medium
13	13	Expensive
14	14	Cheap

Total rows: 500 Query complete 00:00:00.092

9. Find number of airline names in each airline country.



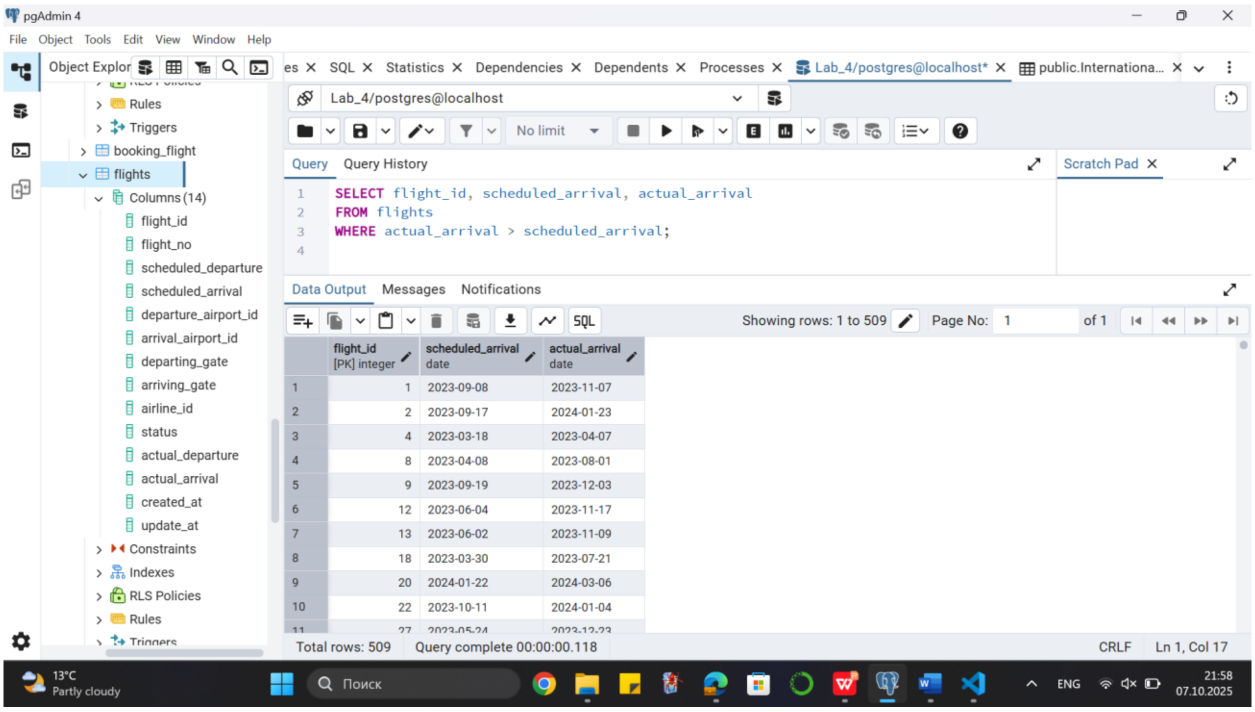
```sql
SELECT airline_country, COUNT(*) AS airlines_number
FROM airline GROUP BY airline_country;
```

	airline_country character varying (50)	airlines_number bigint
1	Indonesia	2
2	Venezuela	1
3	Hungary	1
4	China	10
5	Russia	4
6	Sweden	1
7	Brazil	3
8	Ireland	1
9	Portugal	3
10	Panama	1
11	Yemen	1

Showing rows: 1 to 26

Total rows: 26 Query complete 00:00:00.141

10. Find flights that arrived late according to their actual arrival time compared to the scheduled arrival time.



```sql
SELECT flight_id, scheduled_arrival, actual_arrival
FROM flights
WHERE actual_arrival > scheduled_arrival;
```

	flight_id [PK] integer	scheduled_arrival date	actual_arrival date
1	1	2023-09-08	2023-11-07
2	2	2023-09-17	2024-01-23
3	4	2023-03-18	2023-04-07
4	8	2023-04-08	2023-08-01
5	9	2023-09-19	2023-12-03
6	12	2023-06-04	2023-11-17
7	13	2023-06-02	2023-11-09
8	18	2023-03-30	2023-07-21
9	20	2024-01-22	2024-03-06
10	22	2023-10-11	2024-01-04
11	27	2023-05-24	2023-12-23

Showing rows: 1 to 509

Total rows: 509 Query complete 00:00:00.118