

TASK 1

The image shows two side-by-side PostgreSQL client windows, both connected to the 'Airport/postgres@PostgreSQL 17' database.

Left Client (Query Editor):

- Query tab content:

```
1 BEGIN;
2
3 DELETE FROM booking WHERE booking_id = 1;
4
5 SELECT * FROM non_existent_table;
```
- Data Output tab content:

ERROR: current transaction is aborted, commands ignored until end of transaction block
SQL state: 25P02

Right Client (Query Editor):

- Query tab content:

```
1 ROLLBACK;
2
3 SELECT * FROM booking
4 WHERE booking_id = 1;
```
- Data Output tab content:

booking_id	flight_id	passenger_id	booking_platform	created_at	updated_at	status	ticket_number
1	1	101	71	Leffler-Thompson	2021-08-20 05:39:39	2021-09-10 05:39:39	Pending

Both clients have identical system tray icons at the bottom, including a search icon, a gear icon, a file icon, a person icon, a document icon, a browser icon, and a Yandex icon.

TASK 2

pgAdmin 4

Airport/postgres@PostgreSQL 17*

File Object Tools Edit View Window Help

Object Explorer

- FTS Dictionaries
- FTS Parsers
- FTS Templates
- Foreign Tables
- Functions
- Materialized Views
- Operators
- Procedures
- Sequences
- Tables (10)
 - airline
 - airport
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
- flights
- Columns (13)
 - flight_id
 - sch_departure_time
 - sch_arrival_time
 - departing_airport_id
 - arriving_airport_id
 - departing_gate
 - arriving_gate
 - airline_id
 - act_departure_time
 - act_arrival_time
 - created_at

Query History

```
1 BEGIN;
2 UPDATE flights
3   SET sch_departure_time = '2024-12-25 15:30:00'
4 WHERE flight_id = 100;
5
6 SELECT * FROM flights
7 WHERE flight_id = 100;
```

Scratch Pad

Data Output Messages Notifications

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

flight_id	sch_departure_time	sch_arrival_time	departing_airport_id	arriving_airport_id	departing_gate	arriving_gate	airline_id	act_departure_time	
1	100	2024-12-25 15:30:00	2023-01-29 23:01:13	35	28	G22	H15	29	2023-01-29 23:01:13

Total rows: 1 Query complete 00:00:00.119

Airport/postgres@PostgreSQL 17*

File Object Tools Edit View Window Help

Query History

```
1 ROLLBACK;
2
3 SELECT * FROM flights
4 WHERE flight_id = 100;
```

Data Output Messages Notifications

Showing rows: 1 to 1

flight_id	sch_departure_time	sch_arrival_time	departing_airport_id	arriving_airport_id	departing_gate	arriving_gate	airline_id	act_departure_time	
1	100	2023-01-29 16:01:13	2023-01-29 23:01:13	35	28	G22	H15	29	2023-01-29 23:01:13

Total rows: 1 Query complete 00:00:00.076

Windows Taskbar

TASK 3

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer Airport/postgres@PostgreSQL 17*

Query Scratch Pad

```
BEGIN;  
UPDATE booking  
SET ticket_price = ticket_price * 0.5,  
    updated_at = CURRENT_TIMESTAMP  
WHERE flight_id = 5;  
  
COMMIT;  
  
SELECT * FROM booking  
WHERE flight_id = 5;
```

Data Output Messages Notifications

Showing rows: 1 to 2 Page No: 1 of 1

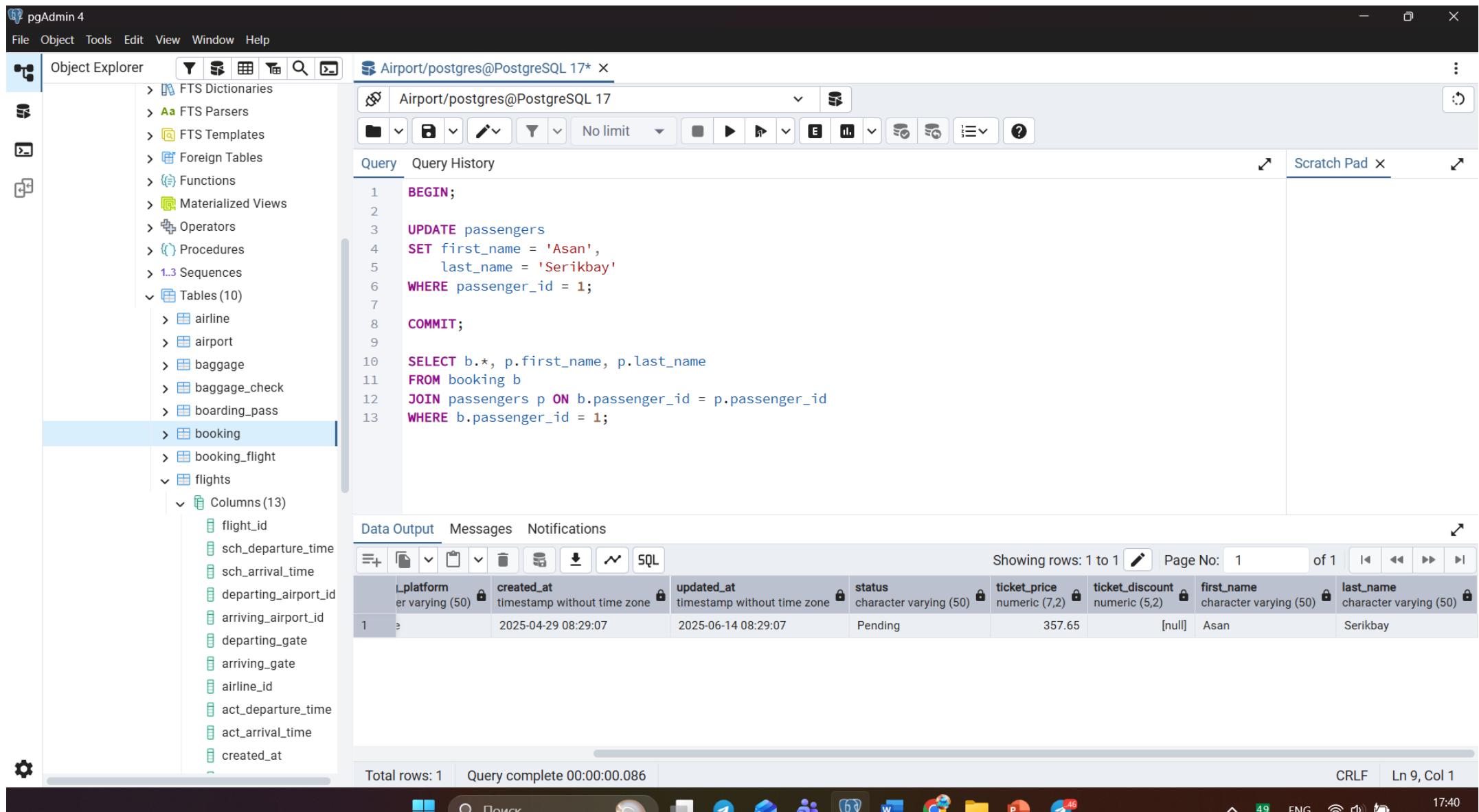
booking_id	flight_id	passenger_id	booking_platform	created_at	updated_at	status	ticket_price	ticket_discount
	integer	integer	character varying (50)	timestamp without time zone	timestamp without time zone	character varying (50)	numeric (7,2)	numeric (5,2)
1	50	5	26	Agency	2024-07-25 01:07:21	Cancelled	1623.48	[null]
2	170	5	171	Agency	2022-09-29 06:10:23	Confirmed	149.80	[null]

Total rows: 2 Query complete 00:00:00.099

CRLF Ln 11, Col 20

47 ENG 17:34 23.11.2025

TASK 4



TASK 5

The image shows three separate windows of the pgAdmin 4 interface, each displaying a query editor and an object explorer.

Top Left Window:

- Object Explorer shows a tree structure with nodes like FTS Dictionaries, Functions, Procedures, Sequences, and Tables (10).
- Query History contains the following SQL code:

```
BEGIN;
INSERT INTO passengers (
    passenger_id,
    first_name,
    last_name,
    date_of_birth,
    gender,
    country_of_citizenship,
    country_of_residence,
    passport_number,
    created_at,
    updated_at
) VALUES (
    201,
    'John',
    'Doe',
    '1990-05-15',
    'Male',
    'USA',
    'USA',
    'AB123456',
    CURRENT_TIMESTAMP,
    CURRENT_TIMESTAMP
);
INSERT INTO booking (
    booking_id,
    flight_id,
    passenger_id,
    booking_platform,
    created_at,
    updated_at,
    status,
    ticket_price
) VALUES (
    201,
    1,
    201,
    'Website',
    CURRENT_TIMESTAMP,
    CURRENT_TIMESTAMP,
    'Confirmed',
    250.00
);
COMMIT;
```

Total rows: 1 Query complete 00:00:00.086

Top Right Window:

- Object Explorer shows a tree structure with nodes like FTS Dictionaries, Functions, Procedures, Sequences, and Tables (10).
- Query History contains the same SQL code as the top-left window.

Total rows: 1 Query complete 00:00:00.086

Bottom Window:

- Object Explorer shows a tree structure with nodes like Foreign Tables, Functions, Materialized Views, Operators, Procedures, Sequences, and Tables (10).
- Query History contains the following SQL code:

```
SELECT
    p.passenger_id,
    p.first_name,
    p.last_name,
    p.passport_number,
    b.booking_id,
    b.flight_id,
    b.status,
    b.ticket_price
FROM passengers p
LEFT JOIN booking b ON p.passenger_id = b.passenger_id
WHERE p.passenger_id = 201;
```

Data Output:

passenger_id	first_name	last_name	passport_number	booking_id	flight_id	status	ticket_price
201	John	Doe	AB123456	201	1	Confirmed	250.00

TASK 6

Session 1 (Left):

```
1 SELECT booking_id, ticket_price FROM booking WHERE flight_id = 2;
```

Session 2 (Right):

```
1 BEGIN;
2
3 UPDATE booking
4 SET ticket_price = ticket_price + 50.00,
5 updated_at = CURRENT_TIMESTAMP
6 WHERE flight_id = 2;
7
8 COMMIT;
9
10 SELECT booking_id, ticket_price FROM booking WHERE flight_id = 2;
```

Data Output (Left):

booking_id	ticket_price
1	201
2	101
3	16

Data Output (Right):

booking_id	ticket_price
1	201
2	101
3	16

TASK 7

The screenshot shows two pgAdmin 4 sessions running on a Windows operating system. Both sessions are connected to the 'Airport' database on PostgreSQL 17.

Session 1 (Left):

- Query:** `SELECT baggage_id, weight_in_kg FROM baggage WHERE baggage_id = 1;`
- Data Output:** A table showing one row: `baggage_id [PK] integer | weight_in_kg numeric (4,2)` with values `1 | 22.05`.
- Total rows: 1 | Query complete 00:00:00.083**

Session 2 (Right):

- Query:** A transaction block:

```
BEGIN;
UPDATE baggage
SET weight_in_kg = 19,
    updated_at = CURRENT_TIMESTAMP
WHERE baggage_id = 1;

COMMIT;
```


SELECT baggage_id, weight_in_kg
FROM baggage
WHERE baggage_id = 1;
- Data Output:** A table showing one row: `baggage_id [PK] integer | weight_in_kg numeric (4,2)` with values `1 | 19.00`.
- Total rows: 1 | Query complete 00:00:00.093**
- Status Bar:** Shows a green checkmark icon and the message "Successfully run. Total query runtime".

The pgAdmin interface includes a central Object Explorer pane listing tables like `airline`, `airport`, `baggage`, and `baggage_check`. The `baggage_check` table is currently selected in the Object Explorer.

TASK 8

The screenshot shows the pgAdmin 4 interface with the following details:

- Title Bar:** pgAdmin 4
- Menu Bar:** File, Object, Tools, Edit, View, Window, Help
- Object Explorer:** Displays the database schema:
 - Tables (10):
 - airline
 - airport
 - baggage
 - boarding_pass
 - booking
 - baggage_check
 - passenger
 - flight
 - ticket
 - Columns (5) under baggage
 - Constraints, Indexes, RLS Policies, Rules, Triggers for each table
- Query Tool:** Contains the following SQL code:

```
BEGIN;
UPDATE booking
SET ticket_price = ticket_price * 0.5,
    updated_at = CURRENT_TIMESTAMP
WHERE passenger_id = 201;

COMMIT;
```
- Data Output:** Shows the result of the COMMIT command: "Query returned successfully in 61 msec."
- Status Bar:** Total rows: 1, Query complete 00:00:00.061, CRLF, Ln 8, Col 8
- System Tray:** Includes icons for Task View, Search, Taskbar, Task Manager, File Explorer, Google Chrome, and others.
- Bottom Bar:** Includes navigation icons and the date/time: 23.11.2025, 17:57

TASK 9

The screenshot shows the pgAdmin 4 interface with the following details:

- Object Explorer:** Displays the database schema with tables like `airline`, `airport`, `baggage`, `baggage_check`, `boarding_pass`, and `booking`.
- Query Editor:** Contains the following SQL code:

```
BEGIN;  
UPDATE booking  
SET flight_id = 2,  
    updated_at = CURRENT_TIMESTAMP  
WHERE flight_id = 1;  
COMMIT;
```
- Data Output:** Shows the message `Query returned successfully in 47 msec.`
- Status Bar:** Shows the status bar with `Total rows: Query complete 00:00:00.047`, `CRLF Ln 6, Col 21`, and the system tray with various icons.