

## Lab work 9. Nurlan Olzhas

1)

The screenshot shows the pgAdmin 4 interface. In the top navigation bar, the title 'pgAdmin 4' is visible along with 'File', 'Object', 'Tools', 'Edit', 'View', 'Window', and 'Help'. Below the title, there's a 'Servers' section with a dropdown menu showing 'airport\_db/postgres@PostgreSQL 17'. The main area is the 'Query Pad' tab, which contains the following SQL code:

```
1 BEGIN;
2 DELETE FROM baggage WHERE booking_id= 22;
3 DELETE FROM booking_flight WHERE booking_id = 22;
4 DELETE FROM booking WHERE booking_id = 22;
5
6 COMMIT;
7
8 SELECT *FROM booking WHERE booking_id = 22;
9 SELECT *FROM booking_flight WHERE booking_id = 22;
```

Below the Query Pad, the 'Data Output' tab is selected, showing a table structure:

booking_flight_id	booking_id	flight_id	created_at	update_at
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At the bottom of the pgAdmin window, the status bar displays 'Total rows: 0' and 'Query complete 00:00:00.225'. The system tray at the bottom of the screen shows the date and time as '25.11.2025 19:11'.

2)

The screenshot shows the pgAdmin 4 interface. In the top navigation bar, the title 'pgAdmin 4' is visible along with 'File', 'Object', 'Tools', 'Edit', 'View', 'Window', and 'Help'. Below the title, there's a 'Servers' section with a dropdown menu showing 'airport\_db/postgres@PostgreSQL 17'. The main area is the 'Query Pad' tab, which contains the following SQL code:

```
1 BEGIN;
2 DELETE FROM baggage WHERE booking_id = 99999;
3 DELETE FROM booking WHERE booking_id = 99999;
4
5 ROLLBACK;
```

Below the Query Pad, the 'Messages' tab is selected, showing the message 'ROLLBACK'. At the bottom of the pgAdmin window, the status bar displays 'Total rows: 0' and 'Query complete 00:00:00.086'. The system tray at the bottom of the screen shows the date and time as '25.11.2025 19:15'.

3)

The screenshot shows the pgAdmin 4 interface. In the top-left corner, there's a tree view labeled "Object Explorer" with a "Servers" node expanded. The main window contains a SQL editor tab with the following code:

```
1 BEGIN;
2 UPDATE flights
3   SET scheduled_departure = '2025-12-15 14:30:30'::timestamp
4 WHERE flight_id=26;
5 COMMIT;
6
7 SELECT flight_id, flight_no, scheduled_departure FROM flights WHERE flight_id = 26;
```

Below the editor is a "Data Output" tab showing the results of the last SELECT statement:

	flight_id	flight_no	scheduled_departure
1	26	CH-TI	2025-12-15

The status bar at the bottom indicates "Total rows: 1 Query complete 00:00:00.345".

4)

The screenshot shows the pgAdmin 4 interface. The layout is identical to the previous one, with the Object Explorer showing a "Servers" node. The SQL editor tab contains the same UPDATE and SELECT statements as in the previous screenshot.

```
1 BEGIN;
2 UPDATE flights
3   SET scheduled_departure = '2025-12-16 09:00:00'::timestamp
4 WHERE flight_id = 99999999;
5 COMMIT;
6
7 SELECT flight_id, flight_no, scheduled_departure FROM flights WHERE flight_id = 9999999;
```

The "Data Output" tab shows the results of the last SELECT statement:

	flight_id	flight_no	scheduled_departure
1			

The status bar at the bottom indicates "Total rows: 0 Query complete 00:00:00.139".

5)

The screenshot shows the pgAdmin 4 interface. In the top-left corner, there's a tree view labeled "Object Explorer" with a "Servers" node expanded. The main window contains a "Query" tab with the following SQL code:

```
1 BEGIN;
2 UPDATE booking b
3 SET price = ROUND(b.price * 0.90, 2)
4 FROM booking_flight bf
5 WHERE b.booking_id = bf.booking_id
6 AND bf.flight_id = 62;
7
8 COMMIT;
9
10 SELECT b.booking_id, b.price, bf.flight_id
11 FROM booking b
12 JOIN booking_flight bf ON b.booking_id = bf.booking_id
13 WHERE bf.flight_id = 62;
```

Below the query, the "Data Output" tab is selected, displaying a table with three rows of data:

booking_id	price	flight_id
211	3224.43	62
215	3208.93	62
294	2501.35	62

At the bottom of the pgAdmin window, a status bar indicates "Total rows: 3 Query complete 00:00:00.047". Above the pgAdmin window, the Windows taskbar shows various pinned icons and the date/time "25.11.2025 20:11".

6)

This screenshot is similar to the previous one, showing the pgAdmin 4 interface. The SQL code is identical:

```
1 BEGIN;
2 UPDATE booking b
3 SET price = ROUND(b.price * 0.90, 2)
4 FROM booking_flight bf
5 WHERE b.booking_id = bf.booking_id
6 AND bf.flight_id = 62;
7
8 COMMIT;
```

In the "Messages" tab, an error message is displayed:

ERROR: деление на ноль  
ОШИБКА: деление на ноль  
SQL state: 22012

The status bar at the bottom of the pgAdmin window shows "Total rows: Query complete 00:00:00.035". The Windows taskbar above it shows the date/time "25.11.2025 20:18".

7)

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer > Servers

airport\_db/postgres@PostgreSQL\_17

No limit

Query History

```

1 BEGIN;
2
3 UPDATE passengers
4 SET first_name = 'RIJR', last_name = 'JBRJ'
5 WHERE passenger_id = 27;
6
7 COMMIT;
8
9 SELECT * FROM passengers WHERE passenger_id = 27;
10 SELECT b.booking_id, b.passenger_id FROM booking b WHERE b.passenger_id = 27;

```

Scratch Pad

Data Output Messages Notifications

Showing rows: 1 to 4 | Page No: 1 of 1 | 14 <> >> >

	booking_id	passenger_id
1	192	27
2	198	27
3	228	27
4	448	27

Total rows: 4 Query complete 00:00:00.067 CRLF Ln 5, Col 25

6°C Clear

Помощь

File Object Tools Edit View Window Help

Object Explorer > Servers

airport\_db/postgres@PostgreSQL\_17

No limit

Query History

```

1 BEGIN;
2
3 UPDATE booking b
4 SET price = ROUND(b.price + 50.00, 2)
5 FROM booking,flight bf
6 WHERE b.booking_id = bf.booking_id
7 AND bf.flight_id = 62;
8
9 COMMIT;
10
11 SELECT b.booking_id, b.price, bf.flight_id
12 FROM booking b
13 JOIN booking,flight bf USING (booking_id)
14 WHERE bf.flight_id = 62;

```

Scratch Pad

Data Output Messages Notifications

Showing rows: 1 to 3 | Page No: 1 of 1 | 14 <> >> >

	booking_id	price	flight_id
1	211	2611.79	62
2	215	2599.24	62
3	294	2026.10	62

Total rows: 3 Query complete 00:00:00.068 CRLF Ln 14, Col 25

6°C Clear

Помощь

File Object Tools Edit View Window Help

Object Explorer > Servers

airport\_db/postgres@PostgreSQL\_17

No limit

Query History

Successfully run. Total query runtime: 68 msec. 3 rows affected.

```

1
2
3

```

Scratch Pad

8)

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer > Servers

Query History

```
1 BEGIN;
2 UPDATE baggage
3 SET weight_in_kg = 20.50, update_date = CURRENT_DATE
4 WHERE baggage_id = 301;
5
6 COMMIT;
7
8 SELECT baggage_id, weight_in_kg, update_date FROM baggage WHERE baggage_id = 301;
```

Data Output Messages Notifications

	baggage_id	weight_in_kg	update_date
1	301	20.50	2025-11-25

Showing rows: 1 to 1 | Page No: 1 of 1 | < << > >> |

Total rows: 1 Query complete 00:00:00.068 ✓ Successfully run. Total query runtime: 68 msec. 1 rows affected. CRLF Lin 9, Col 82

6°C Clear

Помощь

20:39 KA3 25.11.2025

The screenshot shows the pgAdmin 4 interface. In the top-left, the menu bar includes File, Object, Tools, Edit, View, Window, and Help. Below it is the Object Explorer pane with a 'Servers' entry. The main area contains a 'Query History' tab with a SQL script for updating a 'baggage' table. The script begins with a BEGIN block, updates a row where baggage\_id is 301 with a new weight of 20.50 and current date, and ends with a COMMIT block. A SELECT statement follows to verify the update. Below the script is a 'Data Output' tab showing a single row from the 'baggage' table with columns: baggage\_id, weight\_in\_kg, and update\_date. The row has values: 301, 20.50, and 2025-11-25 respectively. At the bottom of the pgAdmin window, a status bar displays 'Total rows: 1 Query complete 00:00:00.068' and a success message '✓ Successfully run. Total query runtime: 68 msec. 1 rows affected.' The status bar also shows file paths like 'C:\...\PostgreSQL\17\bin\psql.exe -U postgres -d airport\_db -c BEGIN;'. The bottom right of the pgAdmin window shows system icons for battery, signal, and date/time (25.11.2025). The desktop taskbar at the bottom of the image shows various application icons including File Explorer, Task Manager, and browser windows.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer > Servers

Query History

```

1 BEGIN;
2
3 UPDATE booking b
4 SET price = ROUND(b.price + 0.85, 2)
5 FROM passengers p
6 WHERE b.passenger_id = p.passenger_id
7 AND p.passenger_id = 62;
8
9 COMMIT;
10
11 SELECT booking_id, passenger_id, price FROM booking WHERE passenger_id = 62;

```

Data Output Messages Notifications

	booking_id	passenger_id	price
1	93	62	8332.81
2	231	62	7986.08
3	248	62	4657.65
4	260	62	3127.38
5	470	62	2916.21

Total rows: 5 Query complete 00:00:00.063 ✓ CRLF Ln 11, Col 77

6°C Clear Помощь 20:41 25.11.2025

9)

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer > Servers

Query History

```

1 BEGIN;
2
3 SELECT flight_id FROM flights WHERE flight_id = 40;
4
5 UPDATE booking_flight
6 SET flight_id = 40, update_at = CURRENT_DATE
7 WHERE flight_id = 34;
8
9 COMMIT;
10
11 SELECT booking_id, flight_id FROM booking_flight WHERE flight_id = 40;

```

Data Output Messages Notifications

	booking_id	flight_id
1	437	40
2	78	40
3	301	40

Total rows: 3 Query complete 00:00:00.068 ✓ CRLF Ln 11, Col 71

6°C Clear Помощь 20:43 25.11.2025