

Laboratory work 9

1.

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

- Object Explorer:** Shows the database schema with tables like `airline`, `airport`, `flights`, etc.
- Query Editor:** Contains the following SQL code:

```
BEGIN;
DELETE FROM booking
WHERE booking_id = -1;
COMMIT;
```
- Data Output:** Displays error messages:
 - ERROR: текущая транзакция прервана, команды до конца блока транзакции игнорируются
 - ОШИБКА: текущая транзакция прервана, команды до конца блока транзакции игнорируются
- Statistics:** Total rows: 500, Query complete 00:00:00.092, CRLF, Ln 4, Col 10.

2.

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

- Object Explorer:** Shows the database schema with tables like `airline`, `airport`, `flights`, etc.
- Query Editor:** Contains the following SQL code:

```
SELECT flight_id, scheduled_departure FROM flights where flight_id = 1;
```
- Data Output:** Displays the results of the query in a table:

flight_id	scheduled_departure
1	2025-12-02
- Statistics:** Showing rows: 1 to 1, Page No: 1 of 1, CRLF, Ln 1, Col 71.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- Procedures
- Sequences
- Tables(10)
 - airline
 - airport
 - Columns(7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
 - flights
 - passengers
 - security_check
 - Trigger Functions
 - Types
 - Views
 - Subscriptions
- postgres
- Login/Group Roles
- Tablespaces

lab2/postgres@PostgreSQL 17* X

Query History

```
1 SELECT flight_id, departure_time FROM flights where flight_id = 1;
2
3 BEGIN;
4
5 UPDATE flights
6 SET scheduled_departure = '2025-12-20 09:00'
7 WHERE id = 1;
8
9 COMMIT;
10
11 SELECT flight_id, departure_time FROM flights where flight_id = 1;
12
```

Data Output Messages Notifications

ROLLBACK

Query returned successfully in 69 msec.

Total rows: Query complete 00:00:00.069 CRLF Ln 9, Col 1

Object Explorer

- Materialized Views
- Operators
- Procedures
- Sequences
- Tables(10)
 - airline
 - airport
 - Columns(7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
 - flights
 - passengers
 - security_check
 - Trigger Functions
 - Types
 - Views
 - Subscriptions
 - postgres
 - Login/Group Roles
 - Tablespaces

lab2/postgres@PostgreSQL 17* X

Query History

```
1 SELECT flight_id, departure_time FROM flights where flight_id = 1;
2
3 BEGIN;
4
5 UPDATE flights
6 SET scheduled_departure = '2025-12-20 09:00'
7 WHERE id = 999999;
8
9 COMMIT;
10
11 SELECT flight_id, departure_time FROM flights where flight_id = 1;
12
```

Data Output Messages Notifications

ROLLBACK

Query returned successfully in 69 msec.

Total rows: Query complete 00:00:00.069 CRLF Ln 9, Col 1

3.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

```

1 select * from booking where booking_id = 1;
2 begin;
3
4 update booking set price = price - 100 where booking_id = 1;
5
6 commit;
7
8 select * from booking where booking_id = 1;
9

```

Data Output Messages Notifications

COMMIT

Query returned successfully in 62 msec.

Total rows: Query complete 00:00:00.062

✓ Query returned successfully in 62 msec. ✘ CRLF Ln 6, Col 1

4.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

```

1 select
2     p.first_name,
3     p.last_name,
4     p.update_at AS p_update_at,
5     b.update_at AS b_update_at
6   from passengers p
7   left join booking b
8     ON b.passenger_id = p.passenger_id
9   where p.passenger_id = 1;
10
11 begin;
12
13 update passengers
14 set
15     first_name = 'Edige',
16     last_name = 'Tleshek'.

```

Data Output Messages Notifications

first_name	last_name	p_update_at	b_update_at
Hilde	Irmis	2024-03-07	2024-01-02
Hilde	Irmis	2024-03-07	2023-11-09

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

Total rows: 2 Query complete 00:00:00.089

✓ Successfully run. Total query runtime: 89 msec. 2 rows affected. ✘ CRLF Ln 1, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- > baggage
- > baggage_check
- > boarding_pass
- > booking
 - > Columns(7)
 - booking_id
 - passenger_id
 - booking_platform
 - created_at
 - update_at
 - status
 - price
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > booking_flight
- > flights
- > passengers
 - > Columns(10)
 - passenger_id
 - first_name
 - last_name
 - date_of_birth
 - gender
 - country_of_citizenship
 - country_of_residence
 - passport_number
 - created_at
 - update_at
 - > Constraints

lab2/postgres@PostgreSQL 17* X

Query History

```

11 begin;
12
13 update passengers
14 set
15     first_name = 'Edige',
16     last_name = 'Tlesbek',
17     update_at = NOW()
18 where passenger_id = 1;
19
20 update booking
21 set
22     update_at = NOW()
23 where passenger_id = 1;
24
25 commit;
26

```

Data Output Messages Notifications

ПРЕДУПРЕЖДЕНИЕ: нет незавершённой транзакции

COMMIT

Query returned successfully in 62 msec.

Total rows: Query complete 00:00:00.062 CRLF Ln 25, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- > baggage
- > baggage_check
- > boarding_pass
- > booking
 - > Columns(7)
 - booking_id
 - passenger_id
 - booking_platform
 - created_at
 - update_at
 - status
 - price
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > booking_flight
- > flights
- > passengers
 - > Columns(10)
 - passenger_id
 - first_name
 - last_name
 - date_of_birth
 - gender
 - country_of_citizenship
 - country_of_residence
 - passport_number
 - created_at
 - update_at
 - > Constraints

lab2/postgres@PostgreSQL 17* X

Query History

```

1 select
2     p.first_name,
3     p.last_name,
4     p.update_at AS p_update_at,
5     b.update_at AS b_update_at
6   from passengers p
7   left join booking b
8     ON b.passenger_id = p.passenger_id
9   where p.passenger_id = 1;
10
11 begin;
12
13 update passengers
14 set
15     first_name = 'Edige',
16     last_name = 'Tlesbek'.

```

Data Output Messages Notifications

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

	first_name	last_name	p_update_at	b_update_at
1	Edige	Tlesbek	2025-12-02	2025-12-02
2	Edige	Tlesbek	2025-12-02	2025-12-02

Total rows: 2 Query complete 00:00:00.081 CRLF Ln 1, Col 1

✓ Successfully run. Total query runtime: 81 msec. 2 rows affected. ✘

5.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- boarding_pass
- booking
 - Columns (7)
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- booking_flight
- flights
- passengers

Query Query History

```

1 vega@...;
2
3 insert into passengers(passenger_id, first_name, last_name, date_of_birth, gender, country_
4 values(
5   1000,
6   'Ivan',
7   'Petrov',
8   '1998-04-12',
9   'male',
10  'Russia',
11  'Kazakhstan',
12  'N12345678',
13  NOW(),
14  NOW());
15
16 Commit;

```

Data Output Messages Notifications

COMMIT

Query returned successfully in 69 msec.

Total rows: 1 Query complete 00:00:00.069 CRLF Ln 16, Col 1

6.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- price
- Constraints
- Indexes
- RLS Policies
- Rules
- Triggers
- booking_flight
- flights
 - Columns (14)
- passengers

Query Query History

```

1 select
2   f.flight_id,
3   b.price
4 from booking b
5 join booking_flight bf on b.booking_id = bf.booking_id
6 join flights f on f.flight_id = bf.flight_id
7 where f.flight_id = 1;
8
9 begin;
10
11 select
12   f.flight_id,
13   b.price
14   from booking b
15   join flights f on b.booking_id = f.booking_id;
16

```

Data Output Messages Notifications

flight_id	price
1	7368.73

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

Total rows: 1 Query complete 00:00:00.074 CRLF Ln 1, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

Query History

```
6 JOIN flights f ON f.flight_id = bf.flight_id
7 WHERE f.flight_id = 1;
8
9 begin;
10
11 UPDATE booking b
12 SET price = b.price + 30
13 FROM booking_flight bf
14 JOIN flights f ON f.flight_id = bf.flight_id
15 WHERE b.booking_id = bf.booking_id
16 AND f.flight_id = 1;
17
18 commit;
```

Data Output

Messages Notifications

UPDATE 1

Query returned successfully in 70 msec.

Total rows: Query complete 00:00:00.070

CRLF Ln 9, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

Query History

```
6 JOIN flights f ON f.flight_id = bf.flight_id
7 WHERE f.flight_id = 1;
8
9 begin;
10
11 UPDATE booking b
12 SET price = b.price + 30
13 FROM booking_flight bf
14 JOIN flights f ON f.flight_id = bf.flight_id
15 WHERE b.booking_id = bf.booking_id
16 AND f.flight_id = 1;
17
18 commit;
```

Data Output

Messages Notifications

COMMIT

Query returned successfully in 70 msec.

Total rows: Query complete 00:00:00.070

✓ Query returned successfully in 70 msec. ✘

CRLF Ln 18, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

```

1 select
2     f.flight_id,
3     b.price
4   from booking b
5  join booking_flight bf on b.booking_id = bf.booking_id
6  join flights f on f.flight_id = bf.flight_id
7  where f.flight_id = 1;
8
9 begin;
10
11 UPDATE booking b
12 SET price = b.price + 30
13 FROM booking_flight bf
14 JOIN flights f ON f.flight_id = bf.flight_id
15 WHERE b.booking_id = bf.booking_id
16 AND f.flight_id = 1;

```

Data Output

flight_id	price
1	7398.73

Total rows: 1 Query complete 00:00:00.096

CRLF Ln 1, Col 1

7.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

```

1 begin;
2
3 update baggage
4 set weight_in_kg = 10
5 where booking_id = 1;
6
7 commit;

```

Data Output

COMMIT

Query returned successfully in 71 msec.

Total rows: 1 Query complete 00:00:00.071

✓ Query returned successfully in 71 msec. ✘

CRLF Ln 7, Col 1

8.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

Query History

```

1 begin;
2
3 update booking
4 set price = price * 0.9
5 where passenger_id = 1;
6
7 commit;
8
9 select passenger_id, price
10 from booking
11 where passenger_id = 1;

```

Data Output

passenger_id	price
1	4697.96
2	8674.26

Total rows: 2 Query complete 00:00:00.104

CRLF Ln 8, Col 1

9.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17*

Query History

```

5 FROM booking_flight bf
6 WHERE b.booking_id = bf.booking_id
7 AND bf.flight_id = 1;
8
9 UPDATE booking_flight
10 SET flight_id = 3
11 WHERE flight_id = 1;
12
13 SELECT b.booking_id, b.price, bf.flight_id
14 FROM booking b
15 JOIN booking_flight bf ON b.booking_id = bf.booking_id
16 WHERE bf.flight_id = 3;
17
18 COMMIT;
19
20

```

Data Output

booking_id	price	flight_id
174	1638.75	3

Total rows: 1 Query complete 00:00:00.079

Successfully run. Total query runtime: 79 msec. 1 rows affected. CRLF Ln 14, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

lab2/postgres@PostgreSQL 17* X

Query History

```
5 FROM booking_flight bf
6 WHERE b.booking_id = bf.booking_id
7 AND bf.flight_id = 1;
8
9
10 UPDATE booking_flight
11 SET flight_id = 3
12 WHERE flight_id = 1;
13 |
14 SELECT b.booking_id, b.price, bf.flight_id
15 FROM booking b
16 JOIN booking_flight bf ON b.booking_id = bf.booking_id
17 WHERE bf.flight_id = 3;
18
19 COMMIT;
```

Data Output Messages Notifications

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

	booking_id	price	flight_id
1	174	1638.75	3
2	200	300.00	3

Total rows: 2 Query complete 00:00:00.066

CRLF Ln 13, Col 1

