

Object Explorer

> Collations

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> FTS Parsers

> FTS Templates

> Foreign Tables

> Functions

> Materialized Views

> Operators

> Procedures

> Sequences

> Tables (10)

airline

Columns (6)

airline_id

airline_code

airline_name

airline_count

created_at

updated_at

> Constraints

> Indexes

> RLS Policies

> Rules

> Triggers

airport

Columns (7)

airport_id

airport_name

country

state

city

created_at

updated_at

> Constraints

BD_Lab2/postgres@PostgreSQL 17* X

BD_Lab2/postgres@PostgreSQL 17

Query Query History

1 #1

2 DO \$\$

3 BEGIN

4 BEGIN

5 DELETE FROM booking

6 WHERE booking_id = 123;

7

8

9 RAISE EXCEPTION 'Invalid booking id';

10

11 COMMIT;

12 EXCEPTION

13 WHEN OTHERS THEN

14 ROLLBACK;

15 RAISE NOTICE 'Transaction rolled back';

16 END;

17 END\$\$;

18

Data Output

Messages

Notifications

NOTICE: Transaction rolled back

DO

Query returned successfully in 281 msec.

Total rows: Query complete 00:00:00.281

LF Ln 2, Col 1

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- > Tables (10)
 - airline
 - Columns (6)
 - airline_id
 - airline_code
 - airline_name
 - airline_count
 - created_at
 - updated_at
 - Constraints
 - Indexes
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 - Rules
 - Triggers
 - airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - Constraints

BD_Lab2/postgres@PostgreSQL 17* X

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
13         WHEN OTHERS THEN
14             ROLLBACK;
15             RAISE NOTICE 'Transaction rolled back';
16     END;
17 END$$;
18
19 #2
20 DO $$
21 BEGIN
22     BEGIN
23         UPDATE flights
24         SET departure_time = '2025-02-01 14:00'
25         WHERE flight_id = 50;
26
27         -- ошибка специально
28         RAISE EXCEPTION 'Invalid flight_id';
29
30     COMMIT;
31 EXCEPTION
32     WHEN OTHERS THEN
33         ROLLBACK;
34         RAISE NOTICE 'Rollback triggered';
35     END;
36 END$$;
37
```

Data Output Messages Notifications

NOTICE: Rollback triggered
DO

Query returned successfully in 68 msec.

Total rows: Query complete 00:00:00.068

✓ Query returned successfully in 68 msec. ✕

LF Ln 37, Col 1

Object Explorer

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> FTS Parsers

> FTS Templates

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> Functions

> Materialized Views

> Operators

> Procedures

> 1..3 Sequences

> Tables (10)

airline

Columns (6)

airline_id

airline_code

airline_name

airline_count

created_at

updated_at

> Constraints

> Indexes

> RLS Policies

> Rules

> Triggers

airport

Columns (7)

airport_id

airport_name

country

state

city

created_at

updated_at

> Constraints

BD_Lab2/postgres@PostgreSQL 17* X

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
34 RAISE NOTICE 'Rollback triggered';
35 END;
36 END$$;
37
38 #3
39 DO $$
40 BEGIN
41 BEGIN
42 UPDATE booking
43 SET price = price - 5000
44 WHERE flight_id = 10;
45
46 IF NOT FOUND THEN
47 RAISE EXCEPTION 'No bookings updated';
48 END IF;
49
50 COMMIT;
51 EXCEPTION
52 WHEN OTHERS THEN
53 ROLLBACK;
54 RAISE NOTICE 'Price update failed';
55 END;
56 END$$;
57
58
```

Data Output Messages Notifications

NOTICE: Price update failed
DO

Query returned successfully in 65 msec.

Total rows: Query complete 00:00:00.065

✓ Query returned successfully in 65 msec. ✕

LF Ln 57, Col 1

Object Explorer

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- > Sequences
- > Tables (10)
 - airline
 - Columns (6)
 - airline_id
 - airline_code
 - airline_name
 - airline_count
 - created_at
 - updated_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - Constraints

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
53         ROLLBACK;
54         RAISE NOTICE 'Price update failed';
55     END;
56 END$$;
57
58 #4
59 DO $$
60 BEGIN
61     BEGIN
62         UPDATE passengers
63         SET first_name = 'NewName',
64             last_name = 'NewLast'
65         WHERE passenger_id = 20;
66
67
68
69
70     COMMIT;
71 EXCEPTION
72     WHEN OTHERS THEN
73         ROLLBACK;
74 END;
75 END$$;
76
77
```

Data Output Messages Notifications

DO

Query returned successfully in 60 msec.

Total rows: Query complete 00:00:00.060

✓ Query returned successfully in 60 msec. ✕

LF Ln 75, Col 1

Object Explorer

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> Operators

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> Tables (10)

airline

Columns (6)

airline_id

airline_code

airline_name

airline_count

created_at

updated_at

> Constraints

> Indexes

> RLS Policies

> Rules

> Triggers

airport

Columns (7)

airport_id

airport_name

country

state

city

created_at

updated_at

> Constraints

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
72          ROLLBACK;
73      END;
74  END$$;
75
76  #5
77  DO $$
78  DECLARE
79      new_id INT;
80  BEGIN
81      BEGIN
82          INSERT INTO passengers(first_name, last_name)
83              VALUES ('Timur', 'Aman')
84              RETURNING passenger_id INTO new_id;
85
86          INSERT INTO booking(passenger_id, flight_id, price)
87              VALUES (new_id, 7, 150000);
88
89          COMMIT;
90  EXCEPTION
91      WHEN OTHERS THEN
92          ROLLBACK;
93          RAISE NOTICE 'Rollback: passenger + booking failed';
94      END;
95  END$$;
96
```

Data Output

Messages

Notifications

NOTICE: Rollback: passenger + booking failed

DO

Query returned successfully in 49 msec.

Total rows: Query complete 00:00:00.049

✓ Query returned successfully in 49 msec. ✕

LF Ln 77, Col 1

Object Explorer

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> Sequences

> Tables (10)

airline

Columns (6)

airline_id

airline_code

airline_name

airline_count

created_at

updated_at

> Constraints

> Indexes

> RLS Policies

> Rules

> Triggers

airport

Columns (7)

airport_id

airport_name

country

state

city

created_at

updated_at

> Constraints

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query

Query History

```
81 BEGIN
82     INSERT INTO passengers(first_name, last_name)
83     VALUES ('Timur', 'Aman')
84     RETURNING passenger_id INTO new_id;
85
86     INSERT INTO booking(passenger_id, flight_id, price)
87     VALUES (new_id, 7, 150000);
88
89     COMMIT;
90 EXCEPTION
91     WHEN OTHERS THEN
92         ROLLBACK;
93     RAISE NOTICE 'Rollback: passenger + booking failed';
94 END;
95 END$$;
96
97 #6
98 BEGIN;
99
100 UPDATE booking
101 SET price = price + 3000
102 WHERE flight_id = 7;
103
104 COMMIT;
105
```

Data Output

Messages

Notifications

COMMIT

Query returned successfully in 54 msec.

Total rows: Query complete 00:00:00.054

LF Ln 98, Col 1

✓ Query returned successfully in 54 msec. ✕

Object Explorer

- airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage
 - Columns (5)
 - baggage_id
 - weight_in_kg
 - created_at
 - updated_at
 - booking_id
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage_check
 - Columns (6)
 - baggage_check_id
 - check_result
 - created_at
 - updated_at
 - booking_id
 - passenger_id
 - Constraints

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query

```
96.
97. #6
98. BEGIN;
99.
100. UPDATE booking
101. SET price = price + 3000
102. WHERE flight_id = 7;
103.
104. COMMIT;
105.
106.
107. #7
108.
109. ROLLBACK;
110.
111.
112. BEGIN;
113.
114. UPDATE baggage
115. SET weight_in_kg = 18
116. WHERE baggage_id = 80;
117.
118. COMMIT;
119.
120.
```

Query History

Data Output Messages Notifications

COMMIT

Query returned successfully in 55 msec.

Total rows: Query complete 00:00:00.055

✓ Query returned successfully in 55 msec. ✕

LF Ln 109, Col 1

Object Explorer

- airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage
 - Columns (5)
 - baggage_id
 - weight_in_kg
 - created_at
 - updated_at
 - booking_id
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage_check
 - Columns (6)
 - baggage_check_id
 - check_result
 - created_at
 - updated_at
 - booking_id
 - passenger_id
 - Constraints

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query

```
118 COMMIT;
119
120 #8
121 DO $$
122 BEGIN
123     BEGIN
124         UPDATE booking
125         SET price = price * 0.9 -- скидка 10%
126         WHERE booking_id = 55;
127
128         IF NOT FOUND THEN
129             RAISE EXCEPTION 'Booking not found';
130         END IF;
131
132         COMMIT;
133     EXCEPTION
134     WHEN OTHERS THEN
135         ROLLBACK;
136         RAISE NOTICE 'Discount canceled (rollback)';
137     END;
138 END$$;
```

Query History

Data Output Messages Notifications

NOTICE: Discount canceled (rollback)
DO

Query returned successfully in 53 msec.

Total rows: Query complete 00:00:00.053

✓ Query returned successfully in 53 msec. ✕

LF Ln 121, Col 1

Object Explorer

- airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage
 - Columns (5)
 - baggage_id
 - weight_in_kg
 - created_at
 - updated_at
 - booking_id
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage_check
 - Columns (6)
 - baggage_check_id
 - check_result
 - created_at
 - updated_at
 - booking_id
 - passenger_id
 - Constraints

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query

```
132 COMMIT;
133 EXCEPTION
134 WHEN OTHERS THEN
135 ROLLBACK;
136 RAISE NOTICE 'Discount canceled (rollback)';
137 END;
138 END$$;
139
140
141 #9
142 DO $$
143 BEGIN
144 BEGIN
145 UPDATE booking
146 SET flight_id = 20
147 WHERE flight_id = 10;
148
149 COMMIT;
150 EXCEPTION
151 WHEN OTHERS THEN
152 ROLLBACK;
153 END;
154 END$$;
155
156
```

Query History

Data Output Messages Notifications

DO

Query returned successfully in 54 msec.

Total rows: Query complete 00:00:00.054

✓ Query returned successfully in 54 msec. ✕

LF Ln 142, Col 1