

Object Explorer

> Indexes

> RLS Policies

> Rules

> Triggers

booking_flight

Columns (5)

booking_flight_id

booking_id

flight_id

created_at

updated_at

> Constraints

> Indexes

> RLS Policies

> Rules

> Triggers

flights

Columns (12)

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

updated_at

> Constraints

> Indexes

> RLS Policies

> Rules

> Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

No limit

Query

Query History

1 #1

2 CREATE INDEX idx_flights_actual_departure ON flights(act_departure_time);

Data Output

Messages

Notifications

CREATE INDEX

Query returned successfully in 269 msec.

Total rows: Query complete 00:00:00.269

LF Ln 2, Col 1

Object Explorer

- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
 - > Columns (12)
 - 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
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
1 #1
2 CREATE INDEX idx_flights_actual_departure ON flights(act_departure_time);
3
4 #2
5 CREATE UNIQUE INDEX idx_flights_unique_flight
6 ON flights(flight_id, sch_departure_time);
```

Data Output Messages Notifications

CREATE INDEX

Query returned successfully in 67 msec.

Total rows: Query complete 00:00:00.067

✓ Query returned successfully in 67 msec. ✕

LF Ln 5, Col 1

Object Explorer

- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
 - > Columns (12)
 - 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
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
1  #1
2  CREATE INDEX idx_flights_actual_departure ON flights(act_departure_time);
3
4  #2
5  CREATE UNIQUE INDEX idx_flights_unique_flight
6  ON flights(flight_id, sch_departure_time);
7
8  #3
9  CREATE INDEX idx_flights_airports
10 ON flights(departing_airport_id, arriving_airport_id);
```

Data Output Messages Notifications

CREATE INDEX

Query returned successfully in 62 msec.

Total rows: Query complete 00:00:00.062

✓ Query returned successfully in 62 msec. ✕

LF Ln 9, Col 1

Object Explorer

- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
 - > Columns (12)
 - 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
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
1 #1
2 CREATE INDEX idx_flights_actual_departure ON flights(act_departure_time);
3
4 #2
5 CREATE UNIQUE INDEX idx_flights_unique_flight
6 ON flights(flight_id, sch_departure_time);
7
8 #3
9 CREATE INDEX idx_flights_airports
10 ON flights(departing_airport_id, arriving_airport_id);
11
12 #4
13 DROP INDEX IF EXISTS idx_flights_airports;
14
15
16 EXPLAIN ANALYZE
17 SELECT * FROM flights
18 WHERE departing_airport_id = 2 AND arriving_airport_id = 1;
19
20
21
```

Data Output Messages Notifications

Showing rows: 1 to 5 Page No: 1 of 1

QUERY PLAN
Seq Scan on flights (cost=0.00..1.42 rows=1 width=214) (actual time=0.016..0.016 rows=0 loops=...)
Filter: ((departing_airport_id = 2) AND (arriving_airport_id = 1))
Rows Removed by Filter: 28
Planning Time: 0.234 ms
Execution Time: 0.031 ms

Total rows: 5 Query complete 00:00:00.082

Successfully run. Total query runtime: 82 msec. 5 rows affected.

LF Ln 13, Col 1

Object Explorer

- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
 - > Columns (12)
 - 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
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
4 #2
5 CREATE UNIQUE INDEX idx_flights_unique_flight
6 ON flights(flight_id, sch_departure_time);
7
8 #3
9 CREATE INDEX idx_flights_airports
10 ON flights(departing_airport_id, arriving_airport_id);
11
12 #4
13 DROP INDEX IF EXISTS idx_flights_airports;
14
15
16 #5
17 EXPLAIN ANALYZE
18 SELECT * FROM flights
19 WHERE departing_airport_id = 2 AND arriving_airport_id = 1;
20
21 EXPLAIN ANALYZE
22 SELECT flight_id, sch_departure_time, act_departure_time
23 FROM flights
24 WHERE departing_airport_id = 1 AND arriving_airport_id = 2;
25
26
```

Data Output Messages Notifications

Showing rows: 1 to 5 Page No: 1 of 1

	QUERY PLAN
1	Seq Scan on flights (cost=0.00..1.42 rows=1 width=20) (actual time=0.019..0.024 rows=1 loops=...
2	Filter: ((departing_airport_id = 1) AND (arriving_airport_id = 2))
3	Rows Removed by Filter: 27
4	Planning Time: 0.552 ms
5	Execution Time: 0.037 ms

Total rows: 5 Query complete 00:00:00.077

Successfully run. Total query runtime: 77 msec. 5 rows affected.

LF Ln 21, Col 1

Object Explorer

- > Constraints
- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
- > passengers
 - > Columns (10)
 - passenger_id
 - first_name
 - last_name
 - date_of_birth
 - gender
 - country_of_citizenship
 - country_of_residence
 - passport_number
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
33 SELECT indexname, indexdef
34 FROM pg_indexes
35 WHERE tablename = 'passengers';
36
37
38 INSERT INTO passengers (first_name, last_name, passport_number)
39 VALUES
40 ('Ivan', 'Ivanov', 'AB123456'),
41 ('Petr', 'Petrov', 'AB123456');
42
43
44 #7
45
46
47 CREATE INDEX idx_passengers_search
48 ON passengers(first_name, last_name, date_of_birth, country_of_citizenship);
49
50
51 EXPLAIN ANALYZE
52 SELECT * FROM passengers
53 WHERE country_of_citizenship = 'Philippines'
54 AND EXTRACT(YEAR FROM date_of_birth) = 1984;
55
```

Data Output Messages Notifications

Showing rows: 1 to 5 Page No: 1 of 1

QUERY PLAN

1	Seq Scan on passengers (cost=0.00..2.03 rows=1 width=64) (actual time=0.025..0.026 rows=0 loops=1)
2	Filter: (((country_of_citizenship)::text = 'Philippines'::text) AND (EXTRACT(year FROM date_of_birth) = '1984'::numeri...
3	Rows Removed by Filter: 59
4	Planning Time: 2.675 ms
5	Execution Time: 0.042 ms

Total rows: 5 Query complete 00:00:00.230

✓ Successfully run. Total query runtime: 230 msec. 5 rows affected. ✕

LF Ln 47, Col 1

Object Explorer

- > Constraints
- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
- > passengers
 - > Columns (10)
 - passenger_id
 - first_name
 - last_name
 - date_of_birth
 - gender
 - country_of_citizenship
 - country_of_residence
 - passport_number
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
24 WHERE departing_airport_id = 1 AND arriving_airport_id = 2;
25
26
27 #6
28
29 CREATE UNIQUE INDEX idx_passengers_passport_unique
30 ON passengers(passport_number);
31
32
33
34
35 #7
36
37
38 CREATE INDEX idx_passengers_search
39 ON passengers(first_name, last_name, date_of_birth, country_of_citizenship);
40
41
42 EXPLAIN ANALYZE
43 SELECT * FROM passengers
44 WHERE country_of_citizenship = 'Philippines'
45 AND EXTRACT(YEAR FROM date_of_birth) = 1984;
46
```

Data Output Messages Notifications

CREATE INDEX

Query returned successfully in 155 msec.

Total rows: Query complete 00:00:00.155

✓ Query returned successfully in 155 msec. ✕

LF Ln 29, Col 1

Object Explorer

- > Constraints
- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > booking_flight
 - > Columns (5)
 - booking_flight_id
 - booking_id
 - flight_id
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
- > flights
- > passengers
 - > Columns (10)
 - passenger_id
 - first_name
 - last_name
 - date_of_birth
 - gender
 - country_of_citizenship
 - country_of_residence
 - passport_number
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers

BD_Lab2/postgres@PostgreSQL 17*

BD_Lab2/postgres@PostgreSQL 17

Query Query History

```
36
37
38 CREATE INDEX idx_passengers_search
39 ON passengers(first_name, last_name, date_of_birth, country_of_citizenship);
40
41
42 EXPLAIN ANALYZE
43 SELECT * FROM passengers
44 WHERE country_of_citizenship = 'Philippines'
45 AND EXTRACT(YEAR FROM date_of_birth) = 1984;
46
47 #8
48
49
50 SELECT
51     indexname,
52     indexdef
53 FROM pg_indexes
54 WHERE tablename = 'passengers';
55
56
57
58
```

Data Output Messages Notifications

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

	indexname	indexdef
1	passengers_pkey	CREATE UNIQUE INDEX passengers_pkey ON public.passengers USING btree (passenger_id)
2	uq_passenger_passport	CREATE UNIQUE INDEX uq_passenger_passport ON public.passengers USING btree (passport_number)

Total rows: 2 Query complete 00:00:00.073

✓ Successfully run. Total query runtime: 73 msec. 2 rows affected. ✕

LF Ln 50, Col 1