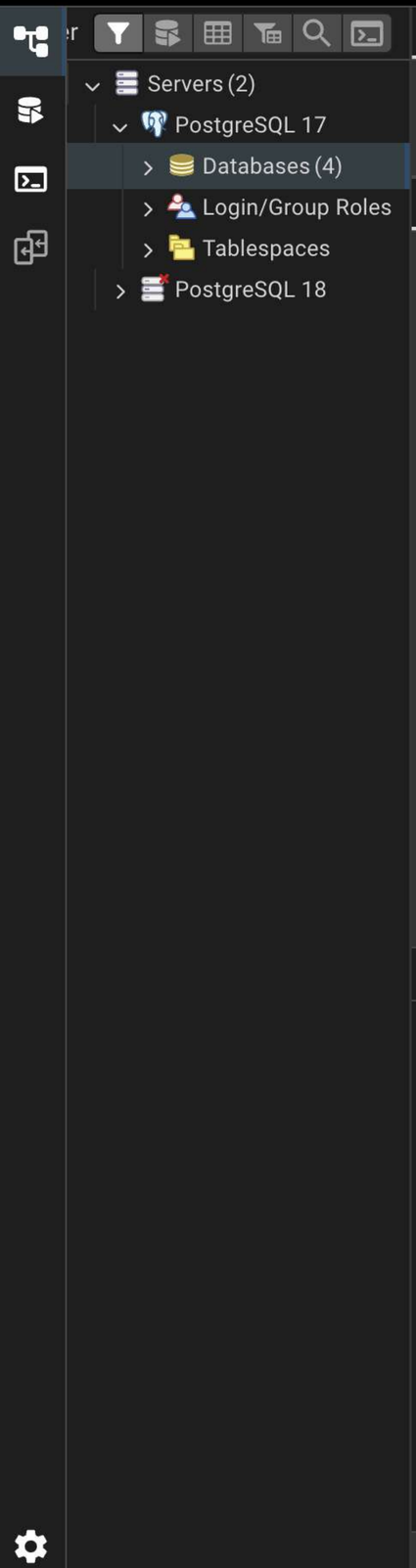
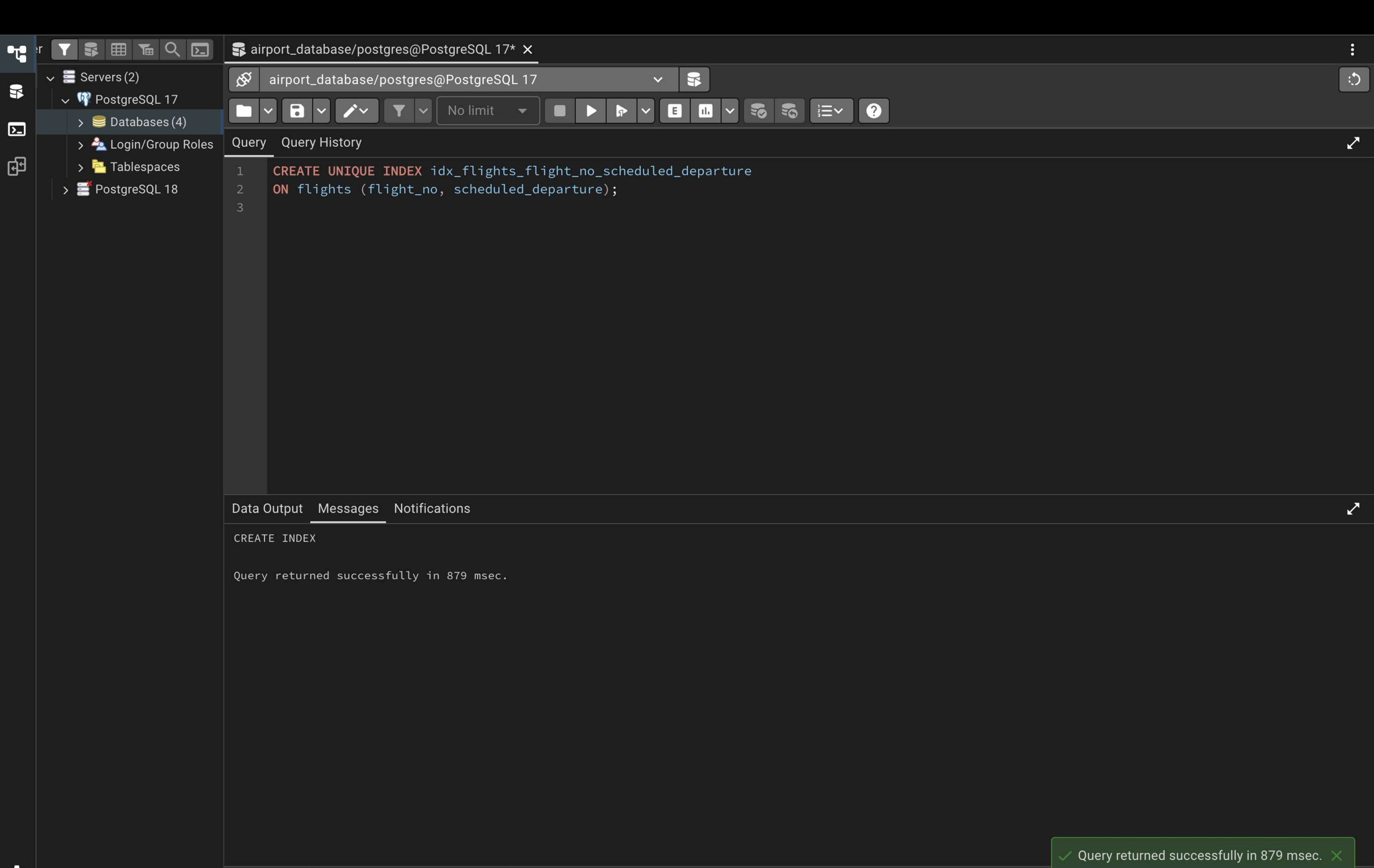
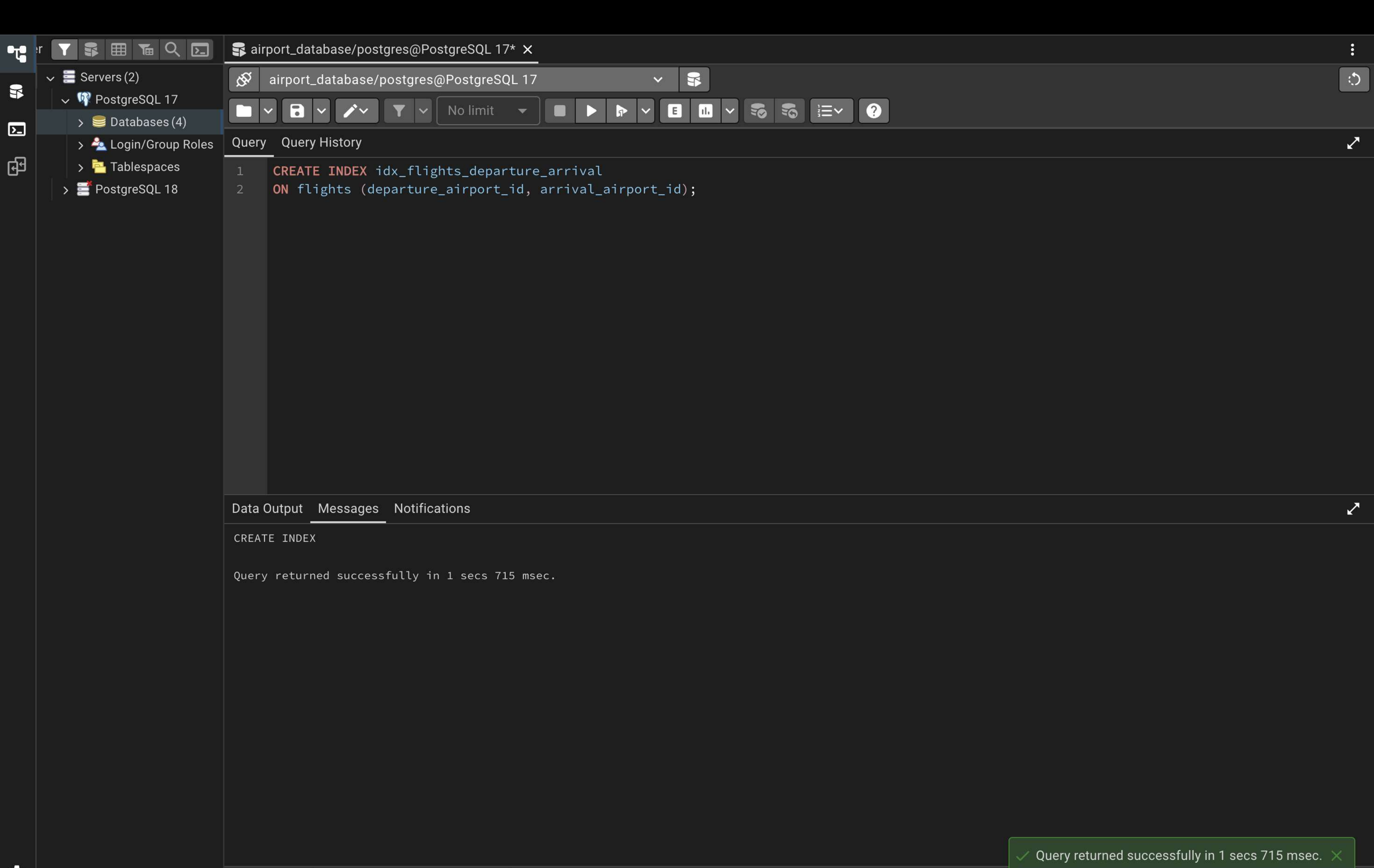
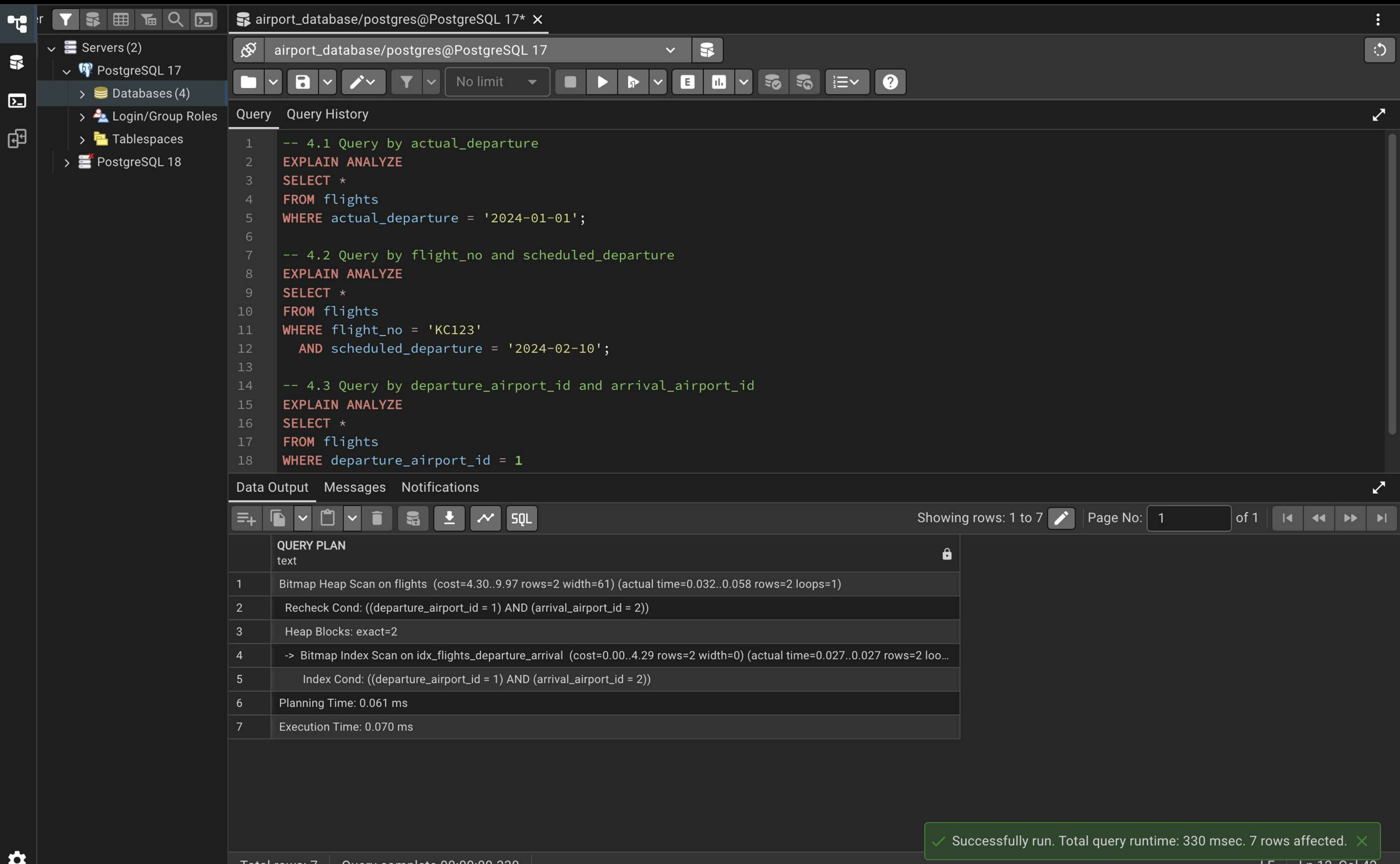
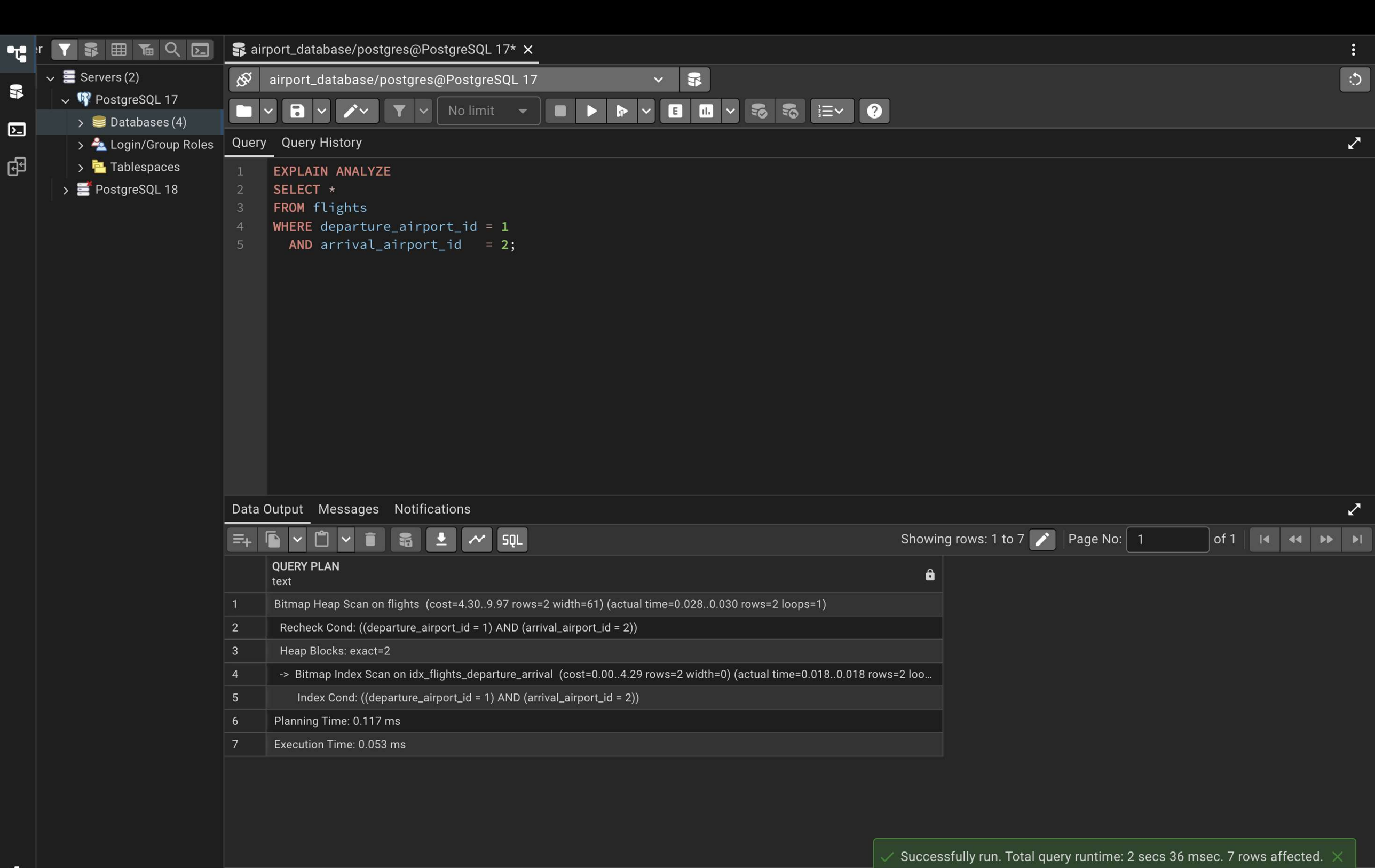
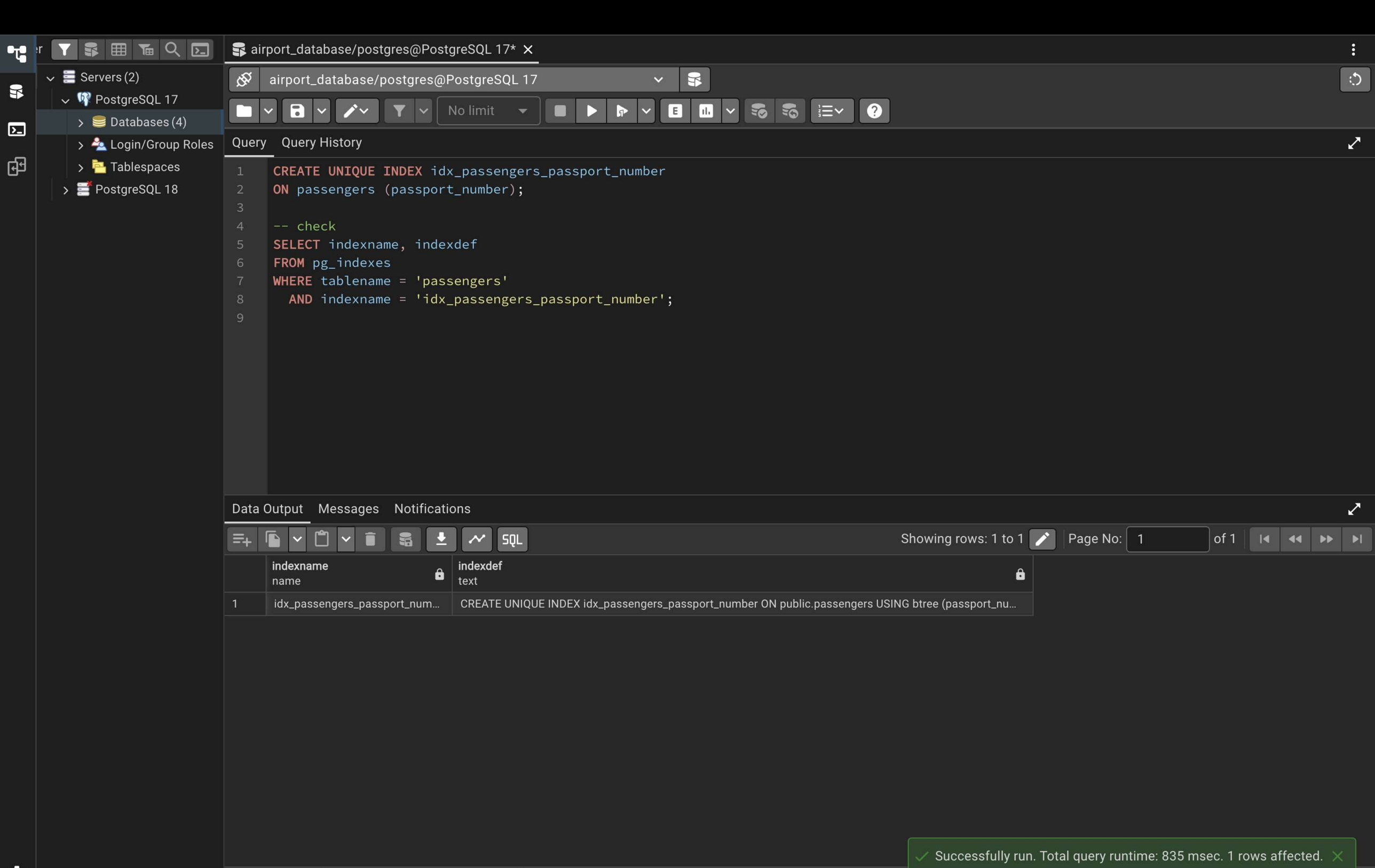

Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17*
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 CREATE INDEX idx_flights_actual_departure
2 ON flights (actual_departure);
Data Output
Messages
Notifications
CREATE INDEX
Query returned successfully in 2 secs 45 msec.
Total rows:
Query complete 00:00:02.045
LF
Ln 2, Col 31

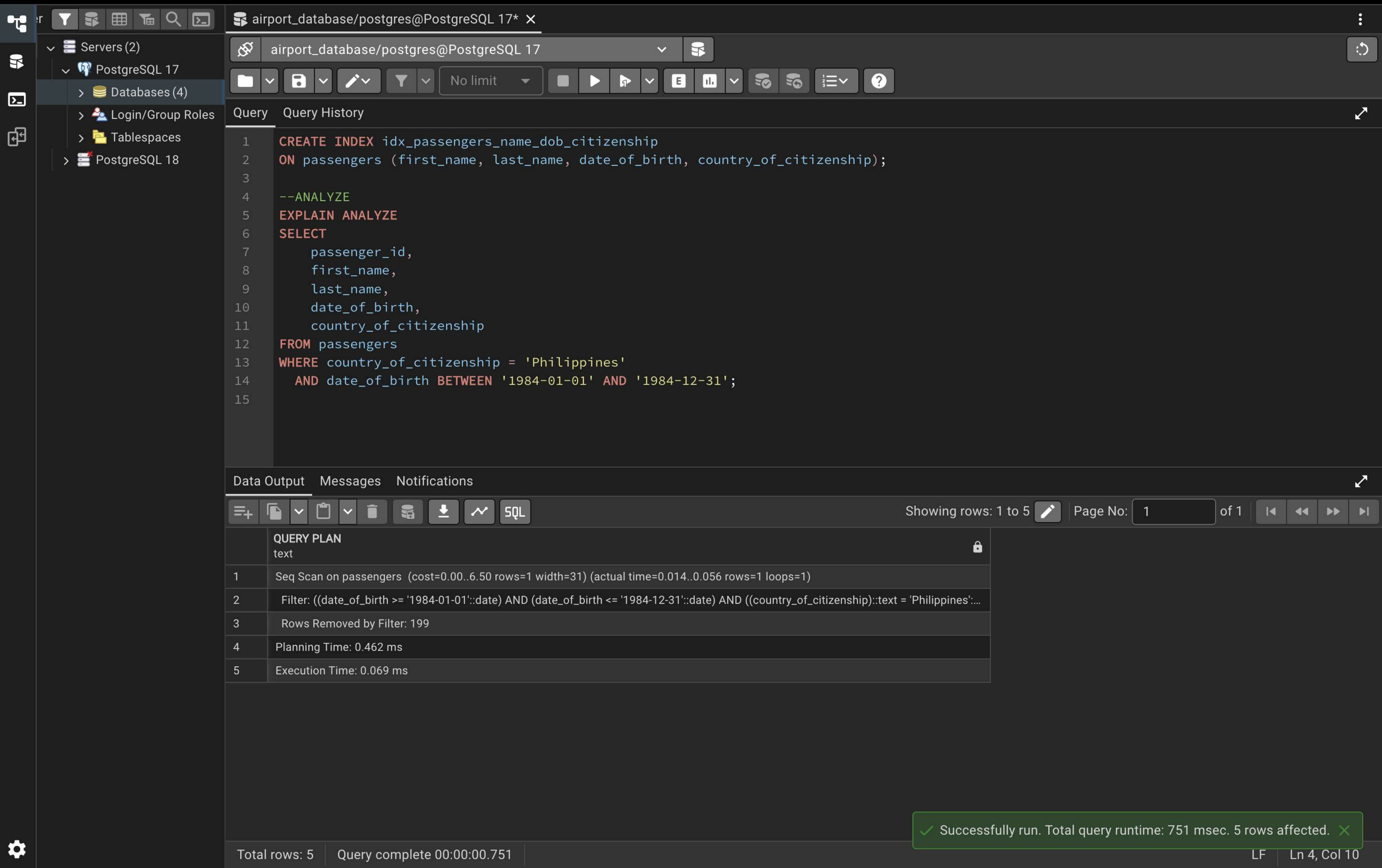

Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17*
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 CREATE UNIQUE INDEX idx_flights_flight_no_scheduled_departure
2 ON flights (flight_no, scheduled_departure);
3
Data Output
Messages
Notifications
CREATE INDEX
Query returned successfully in 879 msec.
Query returned successfully in 879 msec.
Total rows:
Query complete 00:00:00.879
LF
Ln 3, Col 1

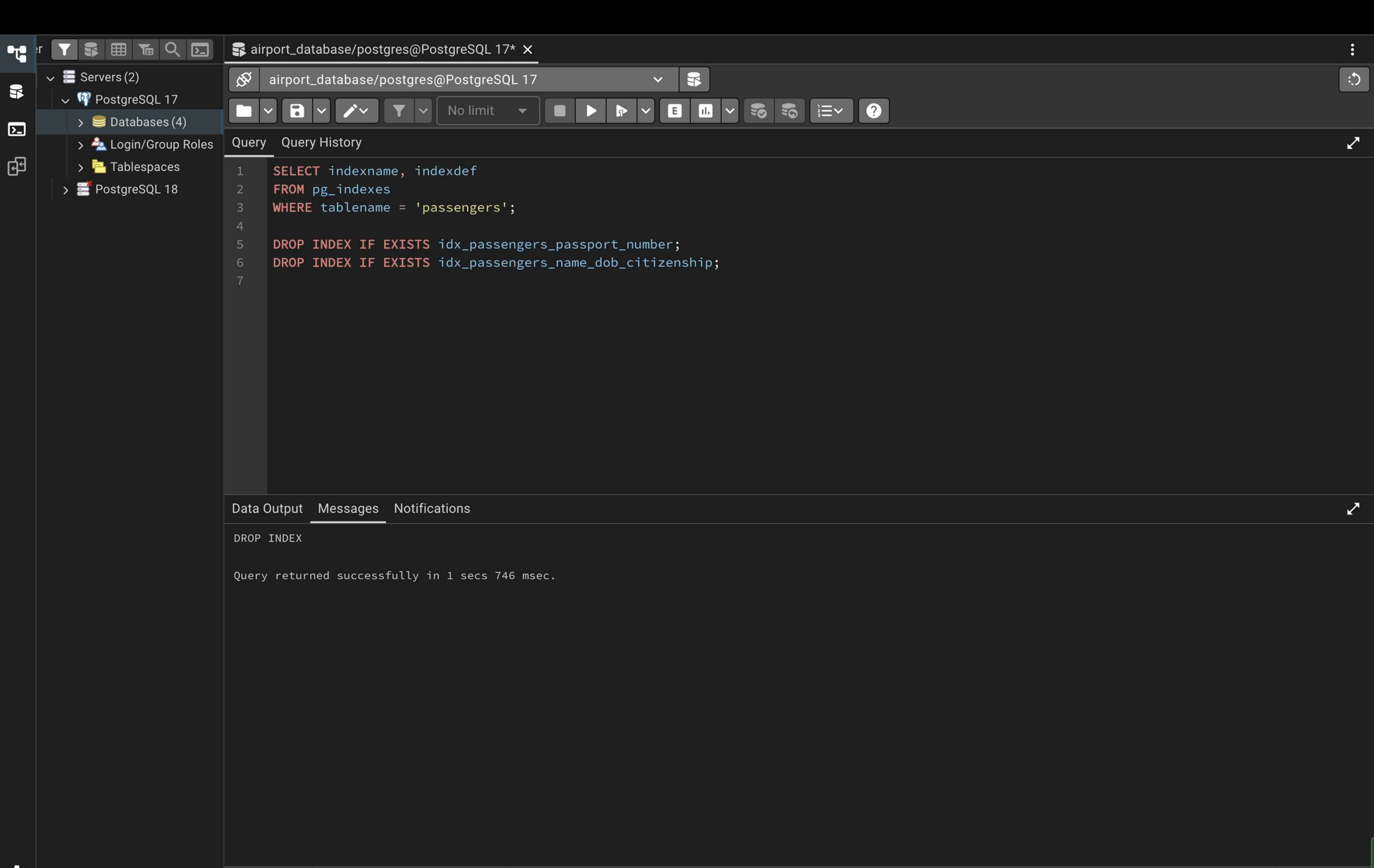

Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17*
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 CREATE INDEX idx_flights_departure_arrival
2 ON flights (departure_airport_id, arrival_airport_id);
Data Output
Messages
Notifications
CREATE INDEX
Query returned successfully in 1 secs 715 msec.
Query returned successfully in 1 secs 715 msec.
Total rows:
Query complete 00:00:01.715
LF
Ln 2, Col 55


airport_database/postgres@PostgreSQL 17*
Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
-- 4.1 Query by actual_departure
EXPLAIN ANALYZE
SELECT *
FROM flights
WHERE actual_departure = '2024-01-01';
-- 4.2 Query by flight_no and scheduled_departure
EXPLAIN ANALYZE
SELECT *
FROM flights
WHERE flight_no = 'KC123'
AND scheduled_departure = '2024-02-10';
-- 4.3 Query by departure_airport_id and arrival_airport_id
EXPLAIN ANALYZE
SELECT *
FROM flights
WHERE departure_airport_id = 1
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 7
Page No: 1
of 1
QUERY PLAN
text
1 Bitmap Heap Scan on flights (cost=4.30..9.97 rows=2 width=61) (actual time=0.032..0.058 rows=2 loops=1)
2 Recheck Cond: ((departure_airport_id = 1) AND (arrival_airport_id = 2))
3 Heap Blocks: exact=2
4 -> Bitmap Index Scan on idx_flights_departure_arrival (cost=0.00..4.29 rows=2 width=0) (actual time=0.027..0.027 rows=2 loo...
5 Index Cond: ((departure_airport_id = 1) AND (arrival_airport_id = 2))
6 Planning Time: 0.061 ms
7 Execution Time: 0.070 ms
Successfully run. Total query runtime: 330 msec. 7 rows affected.
Total rows: 7
Query complete 00:00:00.330
LF
Ln 12, Col 42


Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17*
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 EXPLAIN ANALYZE
2 SELECT *
3 FROM flights
4 WHERE departure_airport_id = 1
5 AND arrival_airport_id = 2;
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 7
Page No: 1
of 1
QUERY PLAN
text
1 Bitmap Heap Scan on flights (cost=4.30..9.97 rows=2 width=61) (actual time=0.028..0.030 rows=2 loops=1)
2 Recheck Cond: ((departure_airport_id = 1) AND (arrival_airport_id = 2))
3 Heap Blocks: exact=2
4 -> Bitmap Index Scan on idx_flights_departure_arrival (cost=0.00..4.29 rows=2 width=0) (actual time=0.018..0.018 rows=2 loo...
5 Index Cond: ((departure_airport_id = 1) AND (arrival_airport_id = 2))
6 Planning Time: 0.117 ms
7 Execution Time: 0.053 ms
Successfully run. Total query runtime: 2 secs 36 msec. 7 rows affected.
Total rows: 7
Query complete 00:00:02.036
LF
Ln 5, Col 32


Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17*
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 CREATE UNIQUE INDEX idx_passengers_passport_number
2 ON passengers (passport_number);
3
4 -- check
5 SELECT indexname, indexdef
6 FROM pg_indexes
7 WHERE tablename = 'passengers'
8 AND indexname = 'idx_passengers_passport_number';
9
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 1
Page No: 1 of 1
indexname name
indexdef text
1
idx_passengers_passport_num...
CREATE UNIQUE INDEX idx_passengers_passport_number ON public.passengers USING btree (passport_nu...
Successfully run. Total query runtime: 835 msec. 1 rows affected.
Total rows: 1
Query complete 00:00:00.835
LF
Ln 9, Col 1


airport_database/postgres@PostgreSQL 17*
Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 CREATE INDEX idx_passengers_name_dob_citizenship
2 ON passengers (first_name, last_name, date_of_birth, country_of_citizenship);
3
4 --ANALYZE
5 EXPLAIN ANALYZE
6 SELECT
7 passenger_id,
8 first_name,
9 last_name,
10 date_of_birth,
11 country_of_citizenship
12 FROM passengers
13 WHERE country_of_citizenship = 'Philippines'
14 AND date_of_birth BETWEEN '1984-01-01' AND '1984-12-31';
15
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 5
Page No: 1 of 1
QUERY PLAN
text
1 Seq Scan on passengers (cost=0.00..6.50 rows=1 width=31) (actual time=0.014..0.056 rows=1 loops=1)
2 Filter: ((date_of_birth >= '1984-01-01'::date) AND (date_of_birth <= '1984-12-31'::date) AND ((country_of_citizenship)::text = 'Philippines':...
3 Rows Removed by Filter: 199
4 Planning Time: 0.462 ms
5 Execution Time: 0.069 ms
Successfully run. Total query runtime: 751 msec. 5 rows affected.
Total rows: 5
Query complete 00:00:00.751
LF
Ln 4, Col 10


Servers (2)
PostgreSQL 17
Databases (4)
Login/Group Roles
Tablespaces
PostgreSQL 18
airport_database/postgres@PostgreSQL 17*
airport_database/postgres@PostgreSQL 17
No limit
Query
Query History
1 SELECT indexname, indexdef
2 FROM pg_indexes
3 WHERE tablename = 'passengers';
4
5 DROP INDEX IF EXISTS idx_passengers_passport_number;
6 DROP INDEX IF EXISTS idx_passengers_name_dob_citizenship;
7
Data Output
Messages
Notifications
DROP INDEX
Query returned successfully in 1 secs 746 msec.
Total rows:
Query complete 00:00:01.746
LF
Ln 1, Col 1