

pgAdmin 4

File Object Tools Edit View Window Help

Welcome Lab1ok/postgres@Lab_1*

Lab1ok/postgres@Lab_1 No limit

Query History Scratch Pad

```
1 --1
2 create index idx_flights_actual_departure
3 on flights(actual_departure);
```

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. CRLF Ln 3, Col 30

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Query History Scratch Pad

```
1 --2
2 create unique index idx_flights_flightno_scheddep
3 on flights(flight_no, scheduled_departure);
```

Data Output Messages Notifications

ERROR: could not create unique index "idx_flights_flightno_scheddep"
Key (flight_no, scheduled_departure)=(US-KS, 2023-09-04) is duplicated.

SQL state: 23505
Detail: Key (flight_no, scheduled_departure)=(US-KS, 2023-09-04) is duplicated.

Total rows: Query complete 00:00:00.048 CRLF Ln 3, Col 44

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Query History Scratch Pad

```
1 --3
2 create index idx_flights_dep_arr_airport
3 on flights(departure_airport_id, arrival_airport_id);
```

Data Output Messages Notifications

CREATE INDEX

Query returned successfully in 54 msec.

Total rows: Query complete 00:00:00.054 ✓ Query returned successfully in 54 msec. CRLF Ln 3, Col 54

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No limit

Query History

Scratch Pad

```
1 --4
2 drop index if exists idx_flights_actual_departure;
3 \v explain analyze
4 select * from flights
5 where actual_departure between '2025-01-01' and '2025-01-02';
```

Data Output Messages Notifications

SQL

Showing rows: 1 to 5 | Page No: 1 of 1 | < << > >> |

	QUERY PLAN
1	Seq Scan on flights (cost=0.00..28.00 rows=1 width=179) (actual time=0.230..0.231 rows=0 loops=...
2	Filter: (actual_departure >= '2025-01-01':date) AND (actual_departure <= '2025-01-02':date)
3	Rows Removed by Filter: 1000
4	Planning Time: 1.397 ms
5	Execution Time: 0.440 ms

Total rows: 5 | Query complete 00:00:00.082 | CRLF | Ln 2, Col 51

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Query History Scratch Pad

```
1 --4
2 create index idx_flights_actual_departure on flights(actual_departure);
3 \v explain analyze
4 select * from flights
5 where actual_departure between '2025-01-01' and '2025-01-02';
```

Data Output Messages Notifications

QUERY PLAN text

```
1 Index Scan using idx_flights_actual_departure on flights (cost=0.28..8.29 rows=1 width=179) (actual time=0.004..0.004 rows=0 loops=...
2   Index Cond: ((actual_departure >= '2025-01-01'::date) AND (actual_departure <= '2025-01-02'::date))
3 Planning Time: 2.028 ms
4 Execution Time: 0.025 ms
```

Showing rows: 1 to 4 Page No: 1 of 1

Total rows: 4 Query complete 00:00:00.084

Successfully run. Total query runtime: 84 msec. 4 rows affected.

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Query History Scratch Pad

```
1 --5
2 explain analyze
3 select flight_id, actual_departure, actual_arrival
4 from flights
5 where departure_airport_id = 3
6 and arrival_airport_id = 5;
```

Data Output Messages Notifications

QUERY PLAN text:

```
1 Bitmap Heap Scan on flights (cost=4.30..9.97 rows=2 width=12) (actual time=0.032..0.034 rows=2 loops=1)
2   Recheck Cond: ((departure_airport_id = 3) AND (arrival_airport_id = 5))
3   Heap Blocks: exact=2
4   -> Bitmap Index Scan on idx_flights_dep_arr_airport (cost=0.00..4.29 rows=2 width=0) (actual time=0.015..0.015 rows=2 loops=1)
5     Index Cond: ((departure_airport_id = 3) AND (arrival_airport_id = 5))
6 Planning Time: 0.100 ms
7 Execution Time: 0.057 ms
```

Showing rows: 1 to 7 Page No: 1 of 1

Total rows: 7 Query complete 00:00:00.069 CRLF Ln 1, Col 4

✓ Successfully run. Total query runtime: 69 msec. 7 rows affected. ✎

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Query History Scratch Pad

```
1 --7
2 create index idx_passengers_name_dob_country
3 on passengers(first_name, last_name, date_of_birth, country_of_citizenship);
4
5 explain analyze
6 select passenger_id, first_name, last_name, date_of_birth
7 from passengers
8 where country_of_citizenship = 'Philippines'
9   and date_of_birth between '1984-01-01' and '1984-12-31';
10
```

Data Output Messages Notifications

QUERY PLAN text

```
1 Seq Scan on passengers (cost=0.00..6.50 rows=1 width=23) (actual time=0.018..0.046 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'::text))
3 Rows Removed by Filter: 199
4 Planning Time: 1.394 ms
5 Execution Time: 0.076 ms
```

Total rows: 5 Query complete 00:00:00.052 CRLF Ln 1, Col 4

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Query History Scratch Pad

```
1 --8
2 select indexname, indexdef
3 from pg_indexes
4 where tablename = 'passengers';
```

Data Output Messages Notifications

Showing rows: 1 to 3 Page No: 1 of 1

indexname name	indexdef text
passengers_pkey	CREATE UNIQUE INDEX passengers_pkey ON public.passengers USING btree (passenger_id)
unique_passport_number	CREATE UNIQUE INDEX unique_passport_number ON public.passengers USING btree (passport_number)
idx_passengers_name_dob_country	CREATE INDEX idx_passengers_name_dob_country ON public.passengers USING btree (first_name, last_name, date_of_birth, country_of_citizenship)

Total rows: 3 Query complete 00:00:00.075 CRLF Ln 1, Col 4

✓ Successfully run. Total query runtime: 75 msec. 3 rows affected. ✎