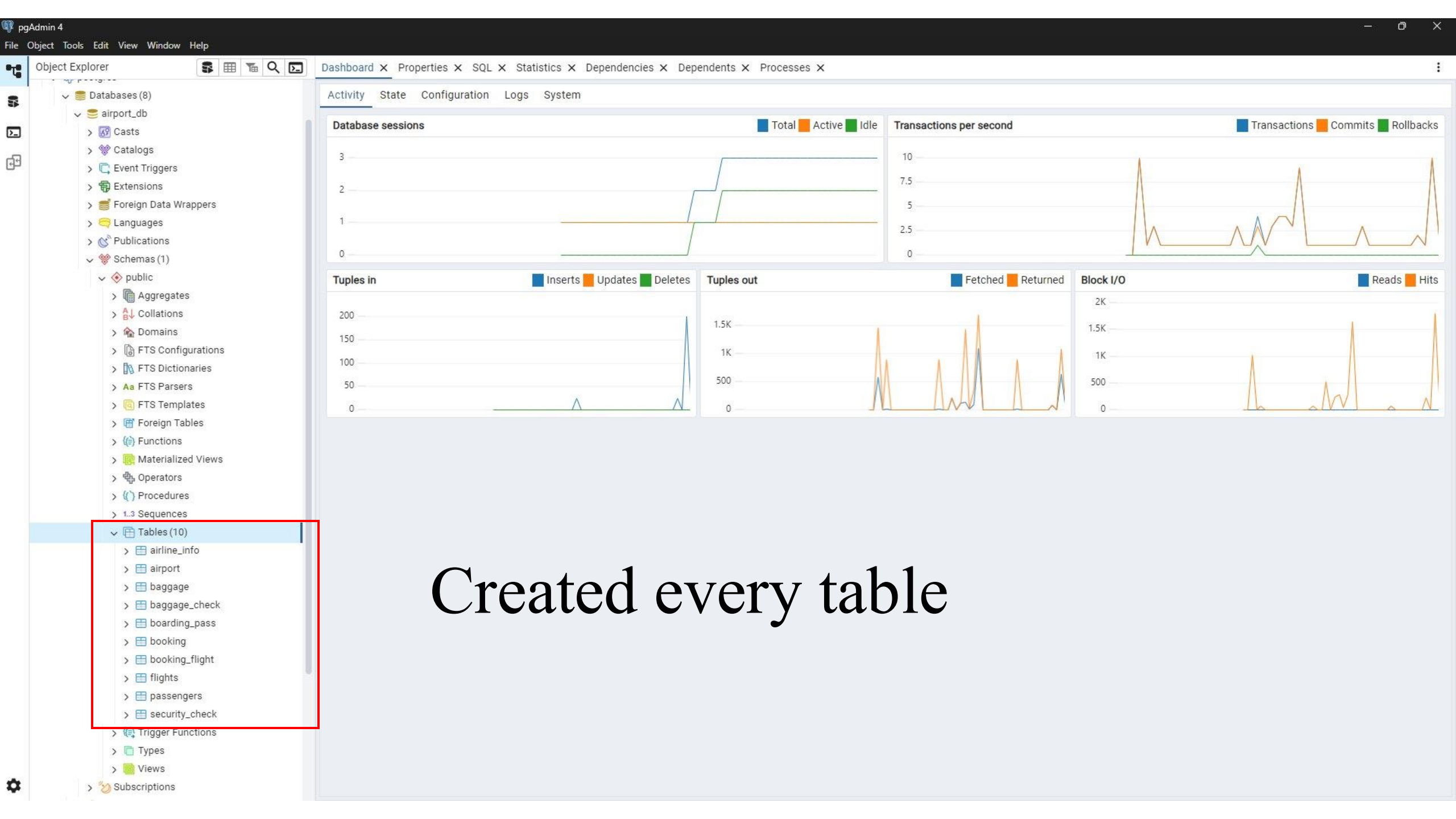
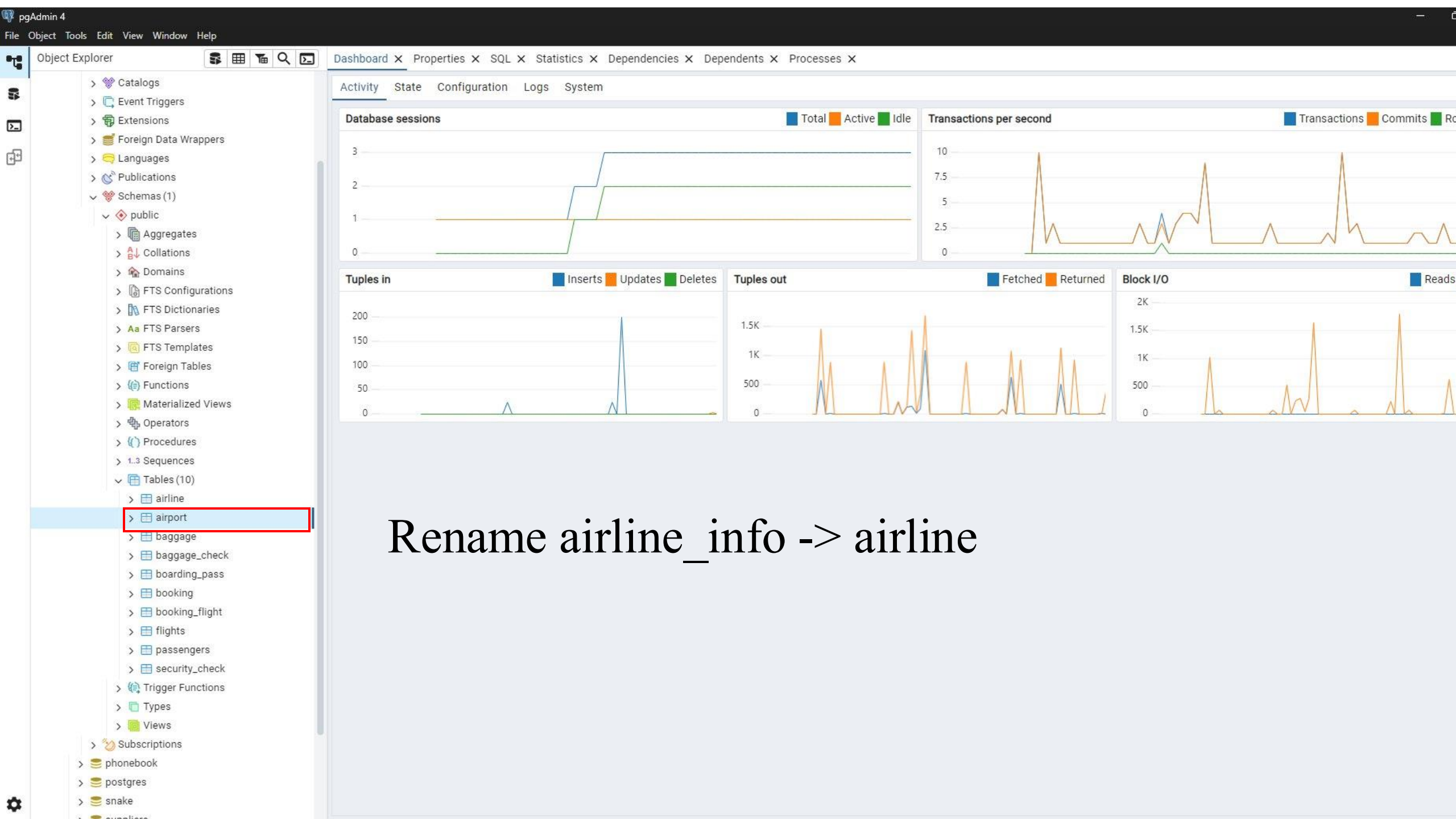


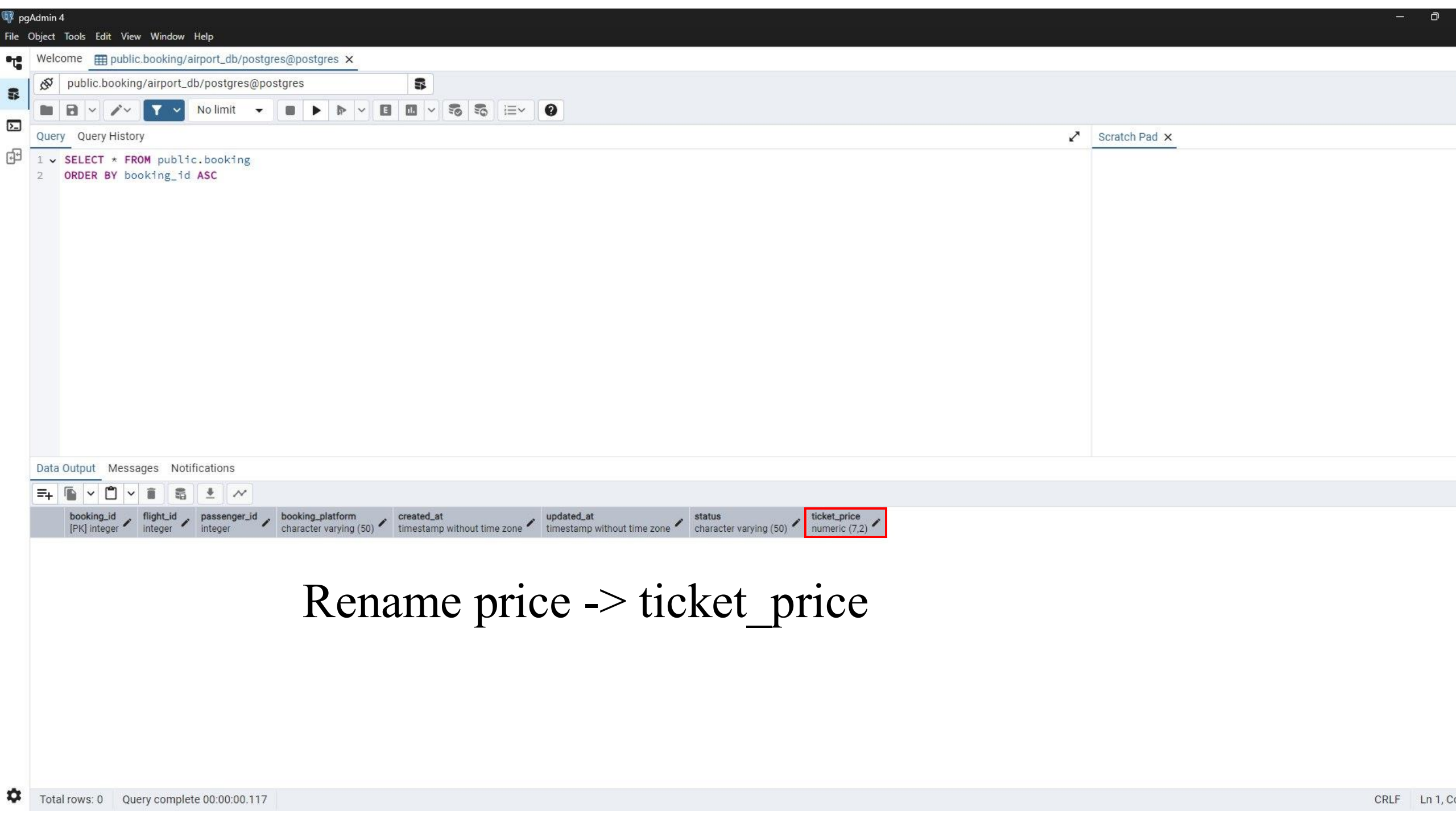
# Databases 2025

- Alan Tokin laboratory work 2

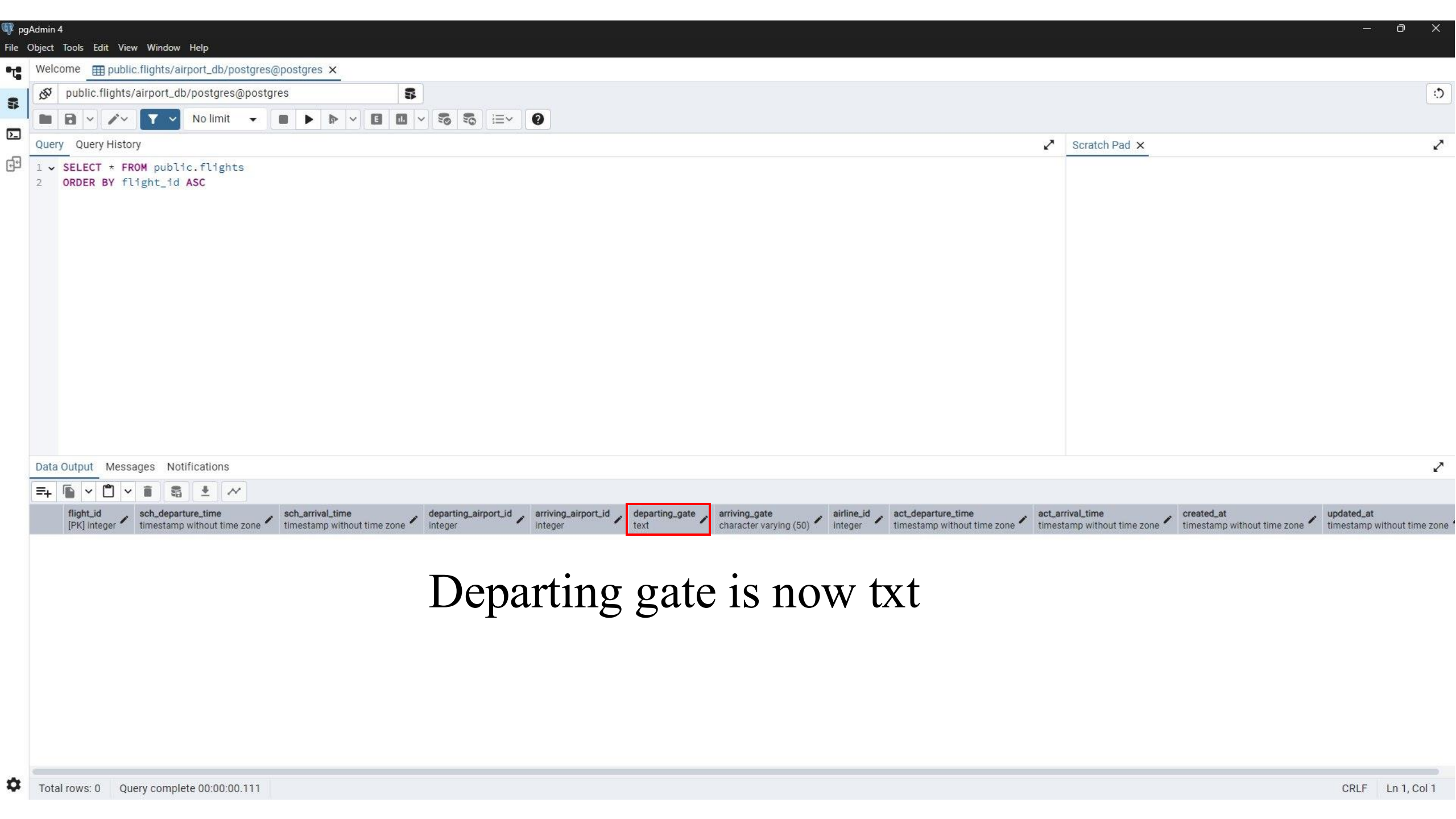




Rename airline\_info -> airline



Rename price -> ticket\_price



Departing gate is now txt

pgAdmin 4

FileObjectToolsEditViewWindowHelp

Welcomepublic.flights/airp...xpublic.airline/airport\_db/postgres@postgresx

public.airline/airport\_db/postgres@postgres

QueryQuery History

1SELECT \* FROM public.airline  
2ORDER BY airline\_id ASC

Scratch Pad

Data OutputMessagesNotifications

airline\_id  
[PK] integer

airline\_code  
character varying (30)

airline\_name  
character varying (50)

airline\_country  
character varying (50)

created\_at  
timestamp without time zone

updated\_at  
timestamp without time zone

Total rows: 0Query complete 00:00:00.129

CRLFLn 1, Col 1

Info row was deleted

```
airport_db=# \d flights
```

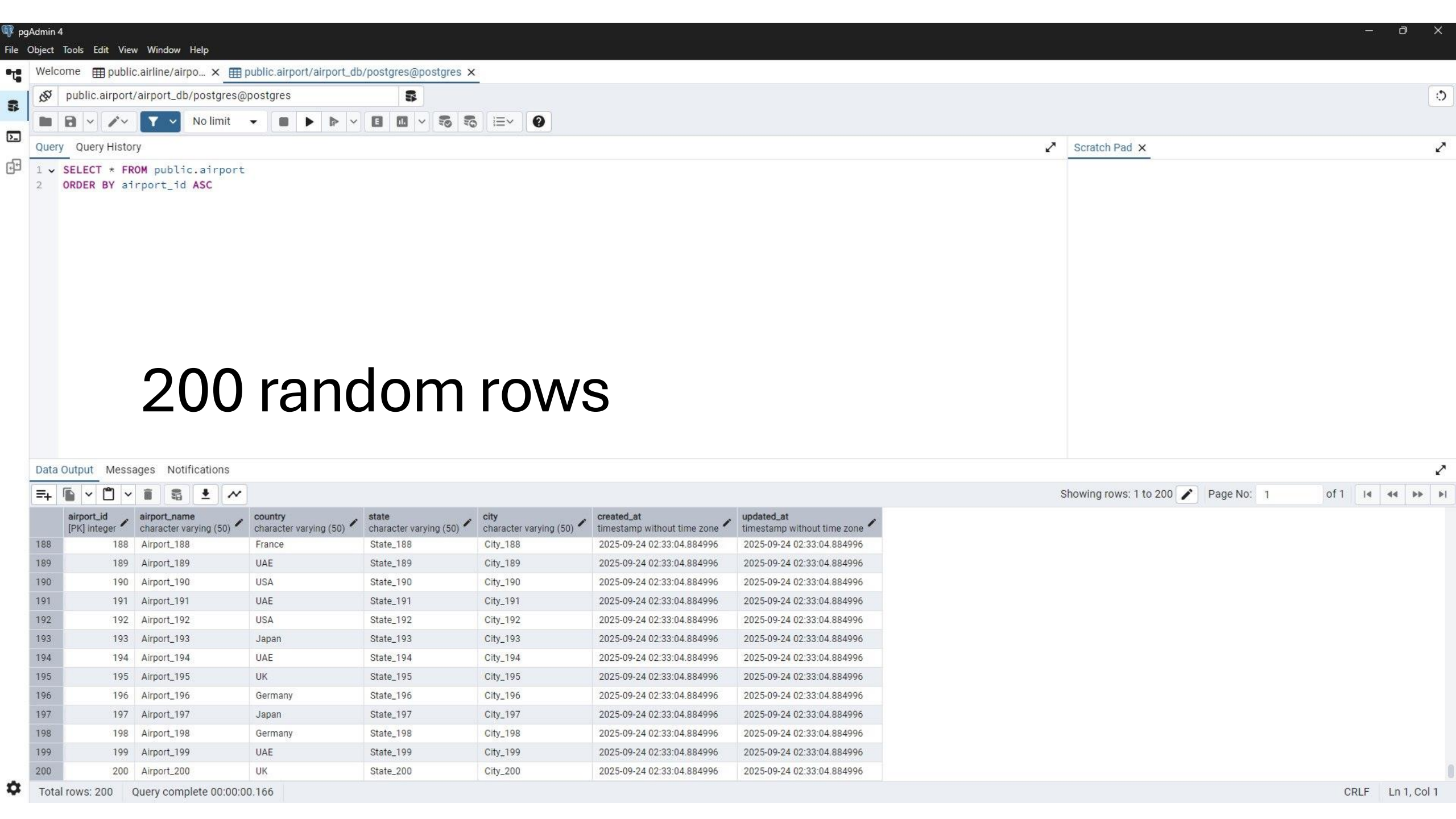
Column	Type	Collation	Nullable	Default
flight_id	integer		not null	
sch_departure_time	timestamp without time zone		not null	
sch_arrival_time	timestamp without time zone		not null	
departing_airport_id	integer		not null	
arriving_airport_id	integer		not null	
departing_gate	text		not null	
arriving_gate	character varying(50)		not null	
airline_id	integer		not null	
act_departure_time	timestamp without time zone		not null	
act_arrival_time	timestamp without time zone		not null	
created_at	timestamp without time zone		not null	
updated_at	timestamp without time zone		not null	

```
Indexes:
    "flights_pkey" PRIMARY KEY, btree (flight_id)
Foreign-key constraints:
    "fk_flight_airline" FOREIGN KEY (airline_id) REFERENCES airline(airline_id)
    "fk_flight_arr_airport" FOREIGN KEY (arriving_airport_id) REFERENCES airport(airport_id)
    "fk_flight_depart_airport" FOREIGN KEY (departing_airport_id) REFERENCES airport(airport_id)
Referenced by:
    TABLE "booking_flight" CONSTRAINT "fk_bookingflight_flight" FOREIGN KEY (flight_id) REFERENCES flights(flight_id)
```

```
airport_db=# |
```

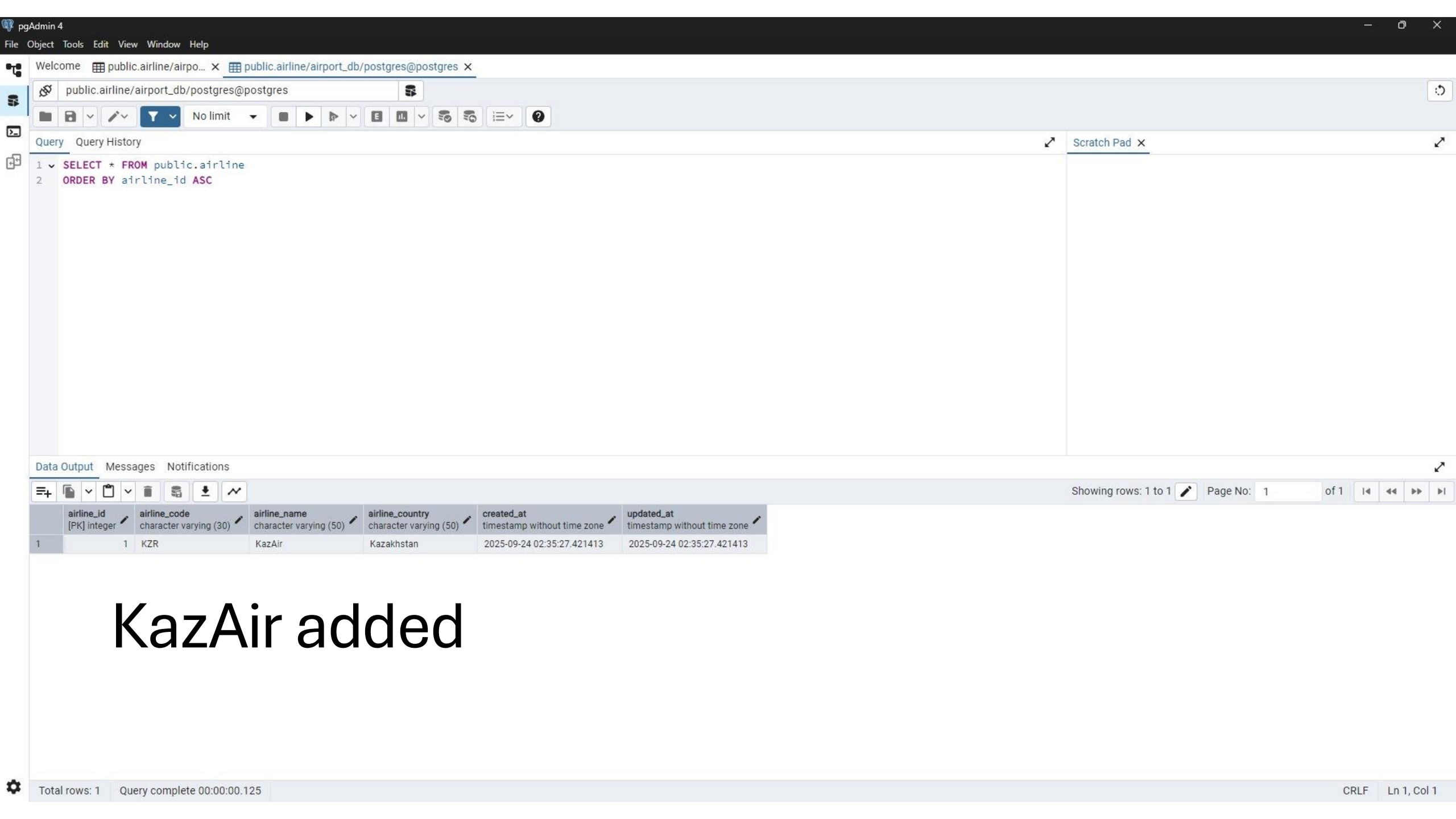
Constraints created



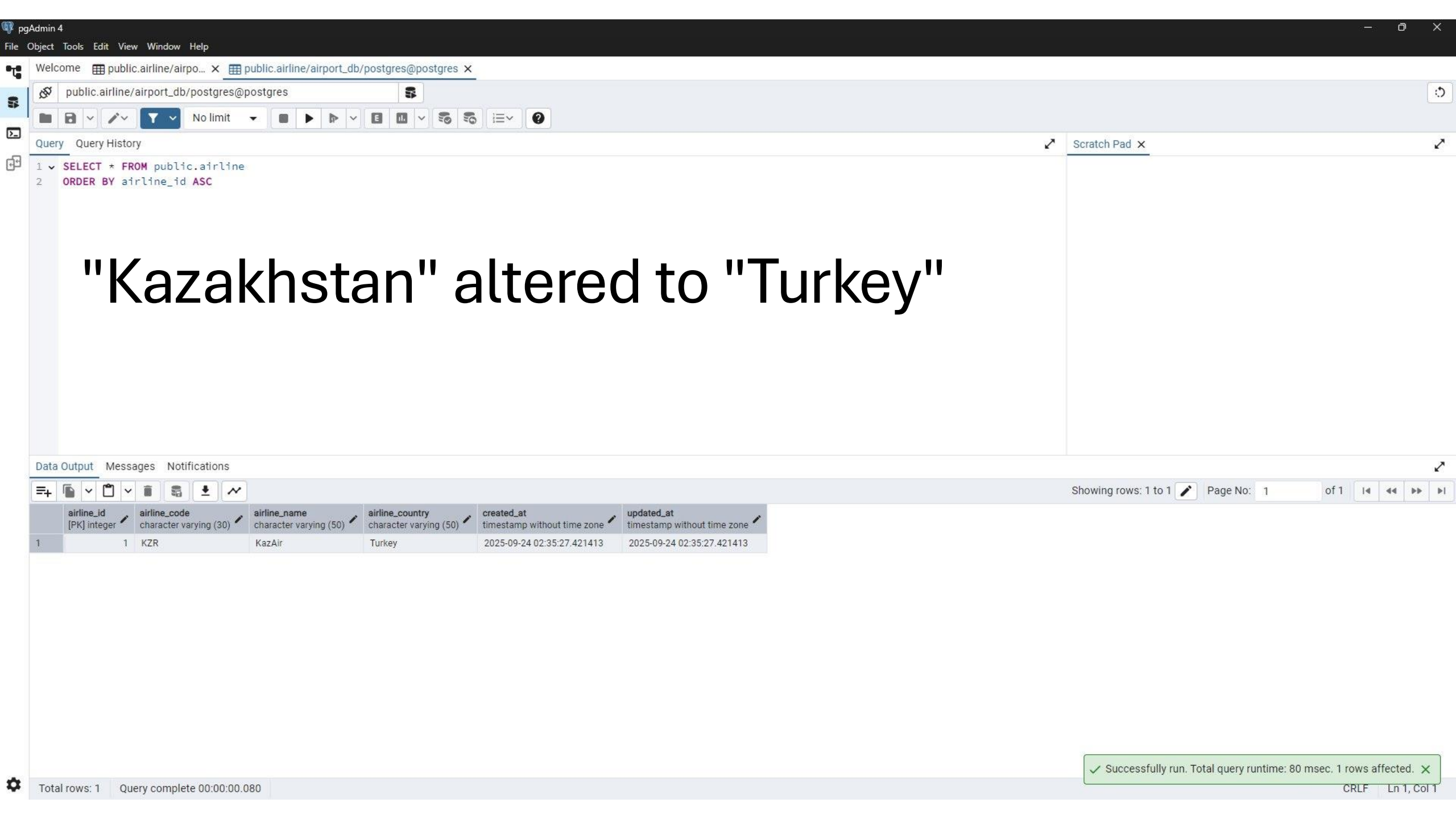


200 random rows





KazAir added



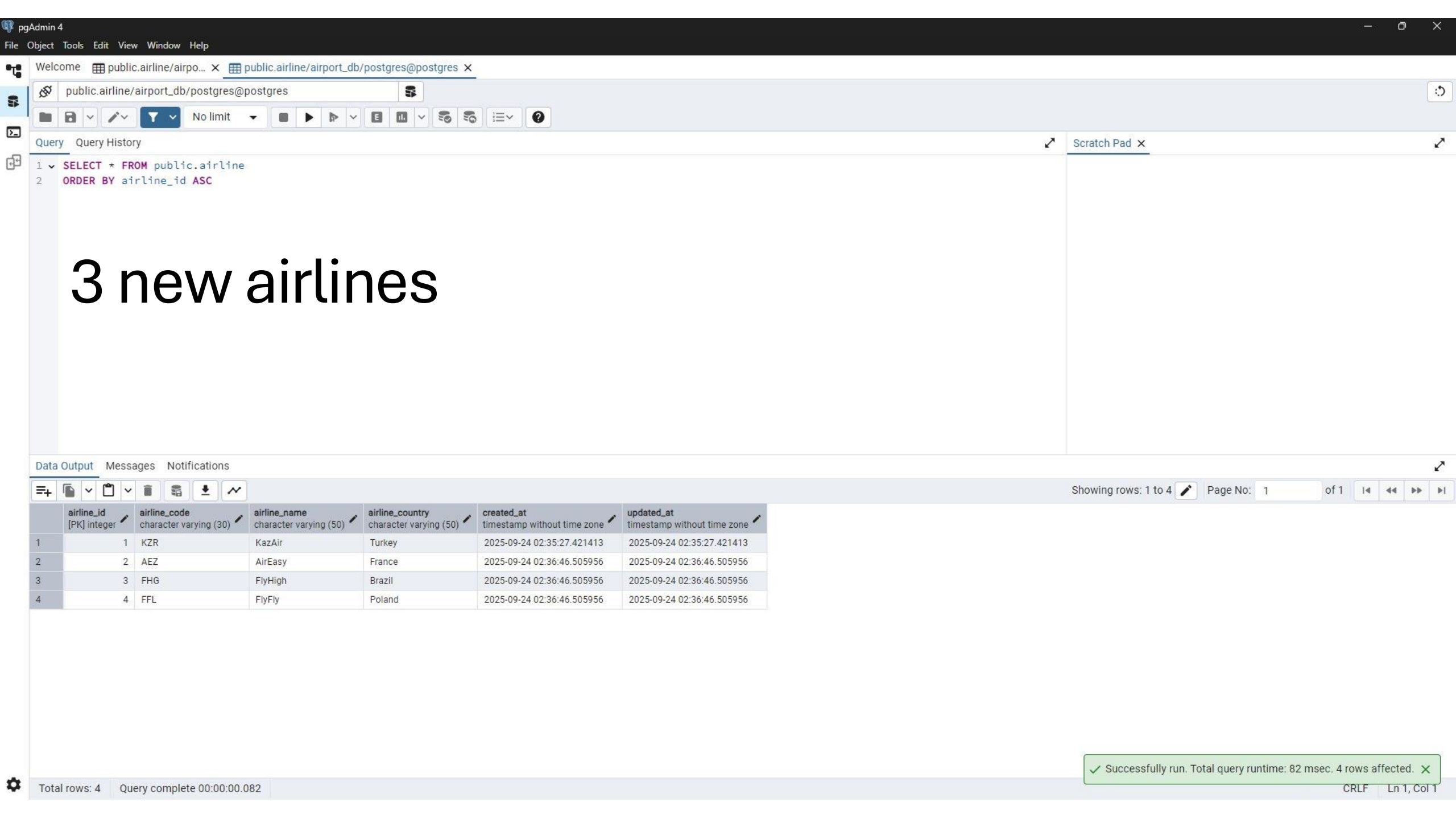
"Kazakhstan" altered to "Turkey"

	airline_id [PK] integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
1	1	KZR	KazAir	Turkey	2025-09-24 02:35:27.421413	2025-09-24 02:35:27.421413

✓ Successfully run. Total query runtime: 80 msec, 1 rows affected. ✕

Total rows: 1    Query complete 00:00:00.080

CRLF    Ln 1, Col 1



3 new airlines

Data Output Messages Notifications



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

	airline_id [PK] integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
1	1	KZR	KazAir	Turkey	2025-09-24 02:35:27.421413	2025-09-24 02:35:27.421413
2	2	AEZ	AirEasy	France	2025-09-24 02:36:46.505956	2025-09-24 02:36:46.505956
3	3	FHG	FlyHigh	Brazil	2025-09-24 02:36:46.505956	2025-09-24 02:36:46.505956
4	4	FFL	FlyFly	Poland	2025-09-24 02:36:46.505956	2025-09-24 02:36:46.505956

✓ Successfully run. Total query runtime: 82 msec, 4 rows affected. ✕

Total rows: 4 Query complete 00:00:00.082

CRLF Ln 1, Col 1

pgAdmin 4

Welcome public.flights/airport\_db/postgres@postgres X

public.flights/airport\_db/postgres@postgres

Query Query History

```
1 SELECT * FROM public.flights
2 ORDER BY flight_id ASC
```

Scratch Pad X

Data Output Messages Notifications

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

flight_id [int] integer	sch_departure_time timestamp without time zone	sch_arrival_time timestamp without time zone	departing_airport_id integer	arriving_airport_id integer	departing_gate text	arriving_gate character varying (50)	airline_id integer	act_departure_time timestamp without time zone	act_arrival_time timestamp without time zone	created_at timestamp without time zone	updated_at timestamp without time zone
1	2024-03-10 08:00:00	2024-03-10 12:00:00	1	2	A1	B2	1	2024-03-10 08:05:00	2024-03-10 12:10:00	2025-09-24 02:38:47.824855	2025-09-24 02:38:47.824855
2	2025-05-01 10:00:00	2025-05-01 15:00:00	2	3	C3	D4	1	2025-05-01 10:10:00	2025-05-01 15:05:00	2025-09-24 02:38:47.824855	2025-09-24 02:38:47.824855
3	2024-11-15 14:00:00	2024-11-15 18:00:00	3	4	E5	F6	2	2024-11-15 14:05:00	2024-11-15 18:20:00	2025-09-24 02:38:47.824855	2025-09-24 02:38:47.824855
4	2025-07-20 09:00:00	2025-07-20 13:00:00	4	5	G7	H8	2	2025-07-20 09:15:00	2025-07-20 13:10:00	2025-09-24 02:38:47.824855	2025-09-24 02:38:47.824855

4 rows

Total rows: 4 Query complete 00:00:00.175 CRLF Ln 1, Col 1

Before and after  
(2024 flights were  
deleted)

pgAdmin 4

Welcome public.flights/airport\_db/postgres@postgres X

public.flights/airport\_db/postgres@postgres

Query Query History

```
1 SELECT * FROM public.flights
2 ORDER BY flight_id ASC
```

Scratch Pad X

Data Output Messages Notifications

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

flight_id [int] integer	sch_departure_time timestamp without time zone	sch_arrival_time timestamp without time zone	departing_airport_id integer	arriving_airport_id integer	departing_gate text	arriving_gate character varying (50)	airline_id integer	act_departure_time timestamp without time zone	act_arrival_time timestamp without time zone	created_at timestamp without time zone	updated_at timestamp without time zone
1	2025-05-01 10:00:00	2025-05-01 15:00:00	2	3	C3	D4	1	2025-05-01 10:10:00	2025-05-01 15:05:00	2025-09-24 02:38:47.824855	2025-09-24 02:38:47.824855
2	2025-07-20 09:00:00	2025-07-20 13:00:00	4	5	G7	H8	2	2025-07-20 09:15:00	2025-07-20 13:10:00	2025-09-24 02:38:47.824855	2025-09-24 02:38:47.824855

2 rows

Successfully run. Total query runtime: 96 msec. 2 rows affected. X

Total rows: 2 Query complete 00:00:00.096 CRLF Ln 1, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Welcome public.flights/airp... X public.booking/airport\_db/postgres@postgres X

public.booking/airport\_db/postgres@postgres

No limit

Query Query History

```
1 SELECT * FROM public.booking
2 ORDER BY booking_id ASC
```

Scratch Pad

Data Output Messages Notifications

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

	booking_id [FK] integer	flight_id integer	passenger_id integer	booking_platform character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone	status character varying (50)	ticket_price numeric (7,2)
1	1	1	1	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	8000.00
2	2	2	2	Mobile	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Pending	12000.00
3	3	3	3	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	9500.00
4	4	4	4	Agent	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Cancelled	20000.00

Total rows: 4 Query complete 00:00:00.120

pgAdmin 4

File Object Tools Edit View Window Help

Welcome public.flights/airp... X public.booking/airport\_db/postgres@postgres X

public.booking/airport\_db/postgres@postgres

No limit

Query Query History

```
1 SELECT * FROM public.booking
2 ORDER BY booking_id ASC
```

Scratch Pad

Data Output Messages Notifications

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

	booking_id [FK] integer	flight_id integer	passenger_id integer	booking_platform character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone	status character varying (50)	ticket_price numeric (7,2)
1	1	1	1	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	9200.00
2	2	2	2	Mobile	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Pending	13800.00
3	3	3	3	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	10925.00
4	4	4	4	Agent	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Cancelled	23000.00

Total rows: 4 Query complete 00:00:00.087

Successfully run. Total query runtime: 87 msec. 4 rows affected. CRLF Ln 1, Col 1

Before and after  
(prices increased)

pgAdmin 4

Welcome public.flights/airp... x public.booking/airport\_db/postgres@postgres x

public.booking/airport\_db/postgres@postgres

Query Query History

```
1 SELECT * FROM public.booking
2 ORDER BY booking_id ASC
```

Scratch Pad

Data Output Messages Notifications

	booking_id [PK] integer	flight_id integer	passenger_id integer	booking_platform character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone	status character varying (50)	ticket_price numeric (7,2)
1	1	1	1	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	9200.00
2	2	2	2	Mobile	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Pending	13800.00
3	3	3	3	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	10925.00
4	4	4	4	Agent	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Cancelled	23000.00

Total rows: 4 Query complete 00:00:00.087

Before and after  
(deleted tickets  
that <10000)

pgAdmin 4

Welcome public.flights/airp... x public.booking/airport\_db/postgres@postgres x

public.booking/airport\_db/postgres@postgres

Query Query History

```
1 SELECT * FROM public.booking
2 ORDER BY booking_id ASC
```

Scratch Pad

Data Output Messages Notifications

	booking_id [PK] integer	flight_id integer	passenger_id integer	booking_platform character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone	status character varying (50)	ticket_price numeric (7,2)
1	2	2	2	Mobile	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Pending	13800.00
2	3	3	3	Web	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Confirmed	10925.00
3	4	4	4	Agent	2025-09-24 02:39:32.651837	2025-09-24 02:39:32.651837	Cancelled	23000.00

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

Total rows: 3 Query complete 00:00:00.094

Successfully run. Total query runtime: 94 msec. 3 rows affected.