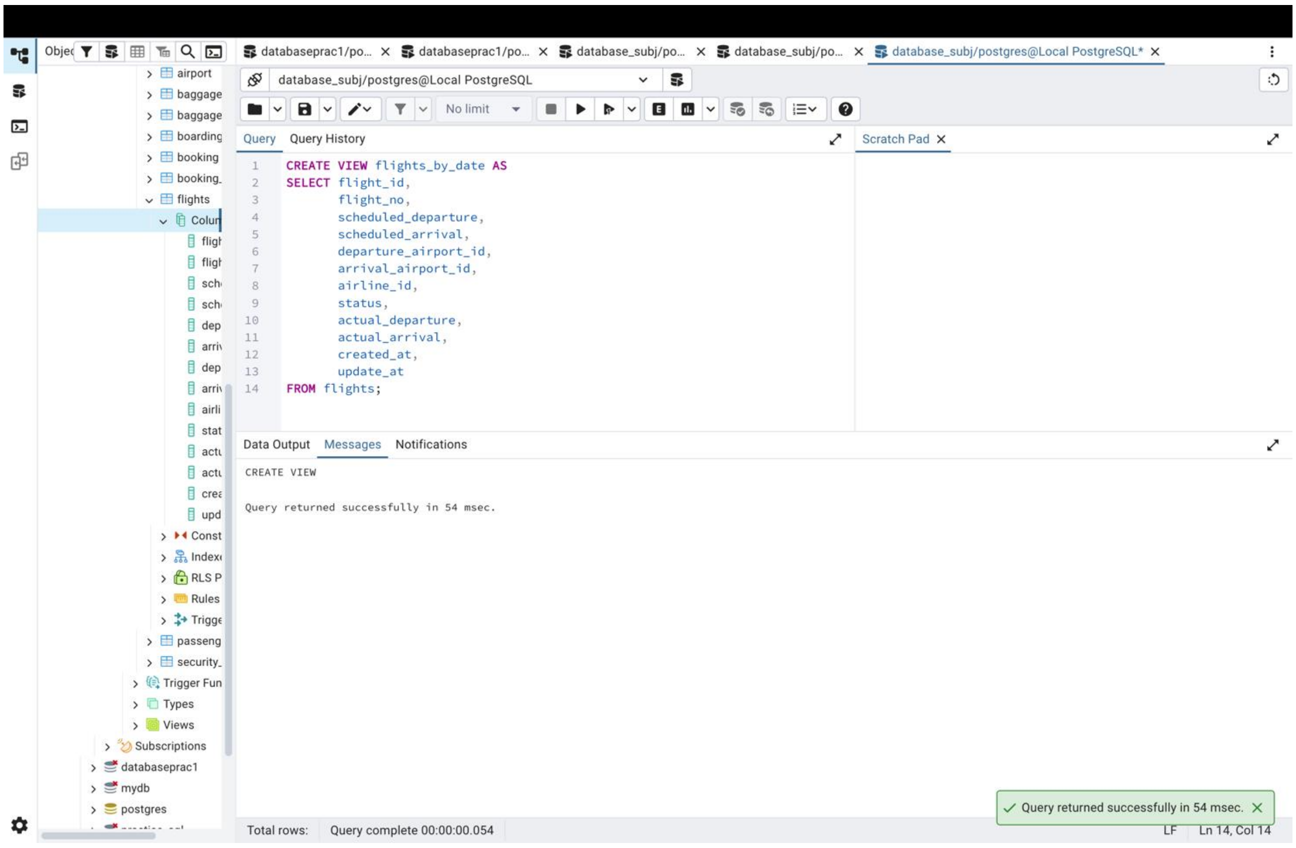
Laboratory work 8

VIEW.

1. Create a view to show details of all flights that are departing on a specific date.



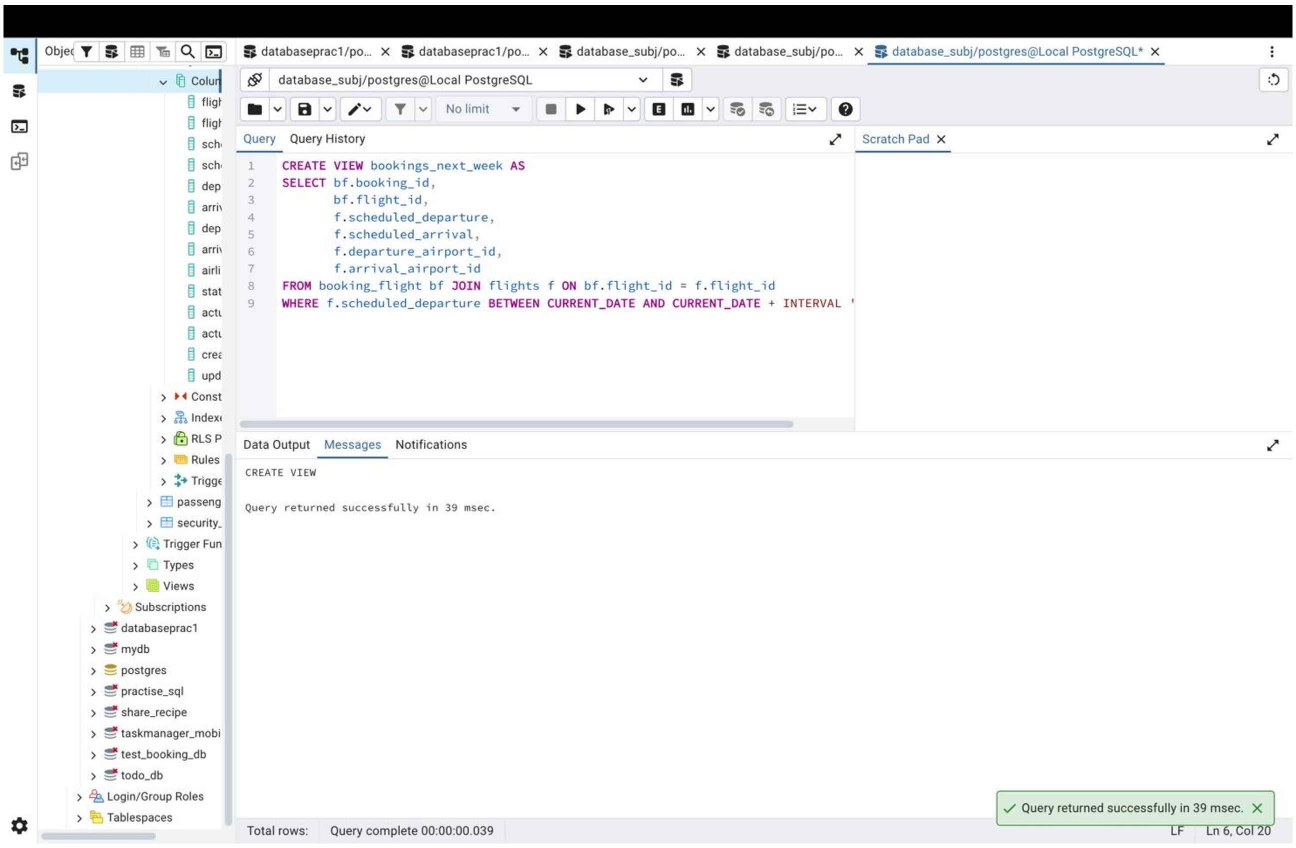
```
CREATE VIEW flights_by_date AS
SELECT flight_id,
       flight_no,
       scheduled_departure,
       scheduled_arrival,
       departure_airport_id,
       arrival_airport_id,
       airline_id,
       status,
       actual_departure,
       actual_arrival,
       created_at,
       update_at
FROM flights;
```

```
CREATE VIEW

Query returned successfully in 54 msec.
```

database_subj/postgres@Local PostgreSQL
Query
Query History
Scratch Pad
Data Output
Messages
Notifications
Query returned successfully in 54 msec.
Total rows:
Query complete 00:00:00.054
Ln 14, Col 14

2. Create a view that shows bookings for flights scheduled to depart within the next week.



```sql
CREATE VIEW bookings_next_week AS
SELECT bf.booking_id,
       bf.flight_id,
       f.scheduled_departure,
       f.scheduled_arrival,
       f.departure_airport_id,
       f.arrival_airport_id
FROM booking_flight bf JOIN flights f ON bf.flight_id = f.flight_id
WHERE f.scheduled_departure BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '
```

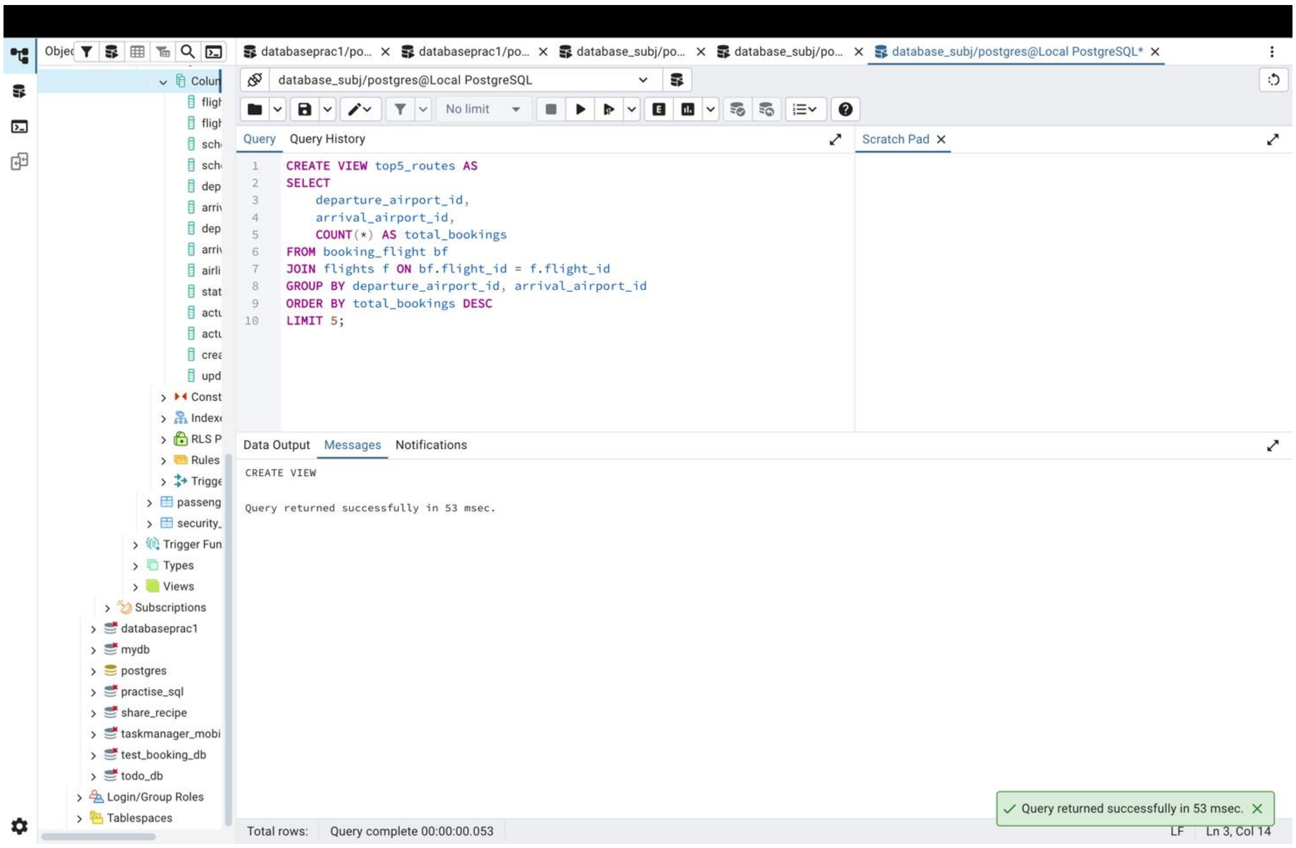
```
CREATE VIEW

Query returned successfully in 39 msec.
```

Total rows: Query complete 00:00:00.039

Query returned successfully in 39 msec.

3. Create a view to show the top 5 most popular flight routes based on the number of bookings.



```sql
CREATE VIEW top5_routes AS
SELECT
    departure_airport_id,
    arrival_airport_id,
    COUNT(*) AS total_bookings
FROM booking_flight bf
JOIN flights f ON bf.flight_id = f.flight_id
GROUP BY departure_airport_id, arrival_airport_id
ORDER BY total_bookings DESC
LIMIT 5;
```

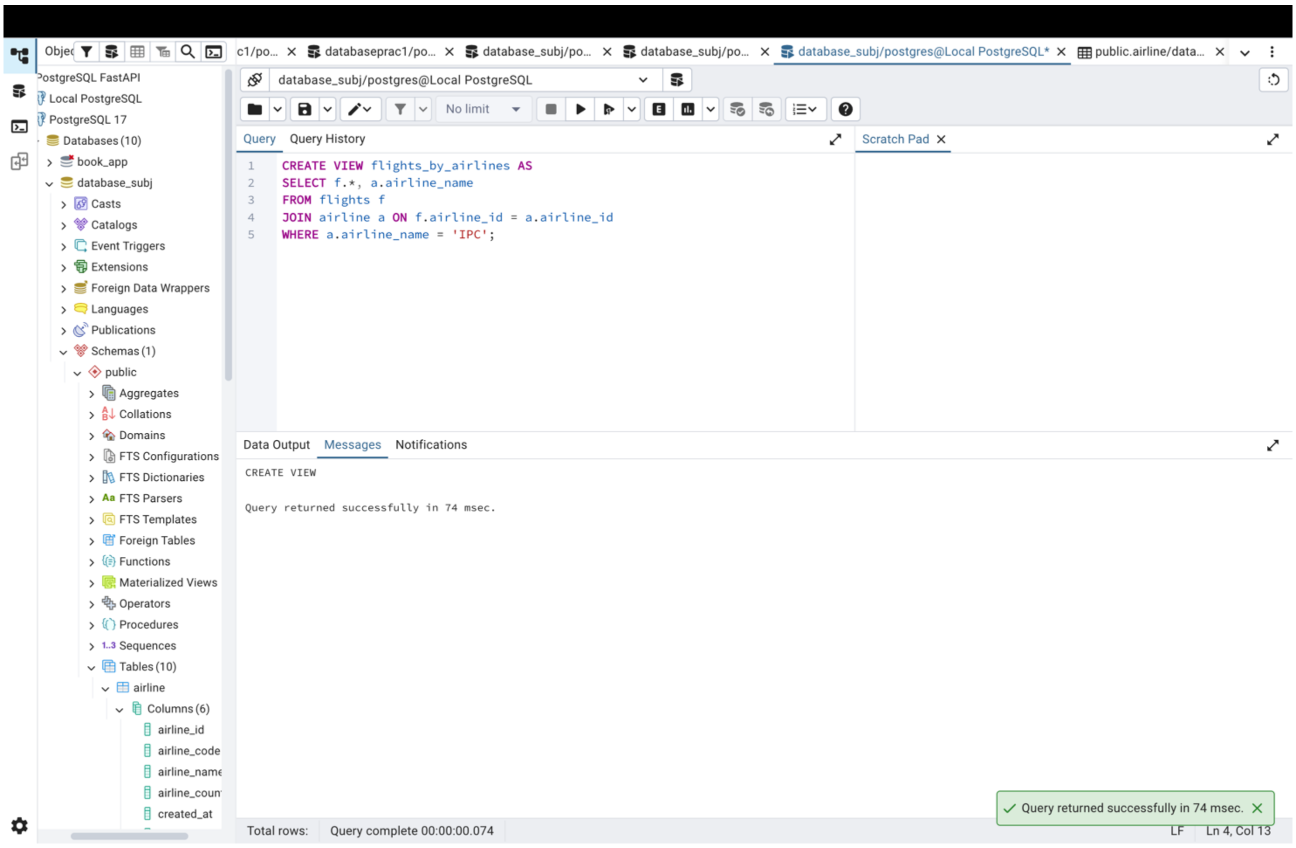
```
CREATE VIEW

Query returned successfully in 53 msec.
```

Total rows: Query complete 00:00:00.053

Query returned successfully in 53 msec.

4. Create a view that lists all flights for a specific airline.



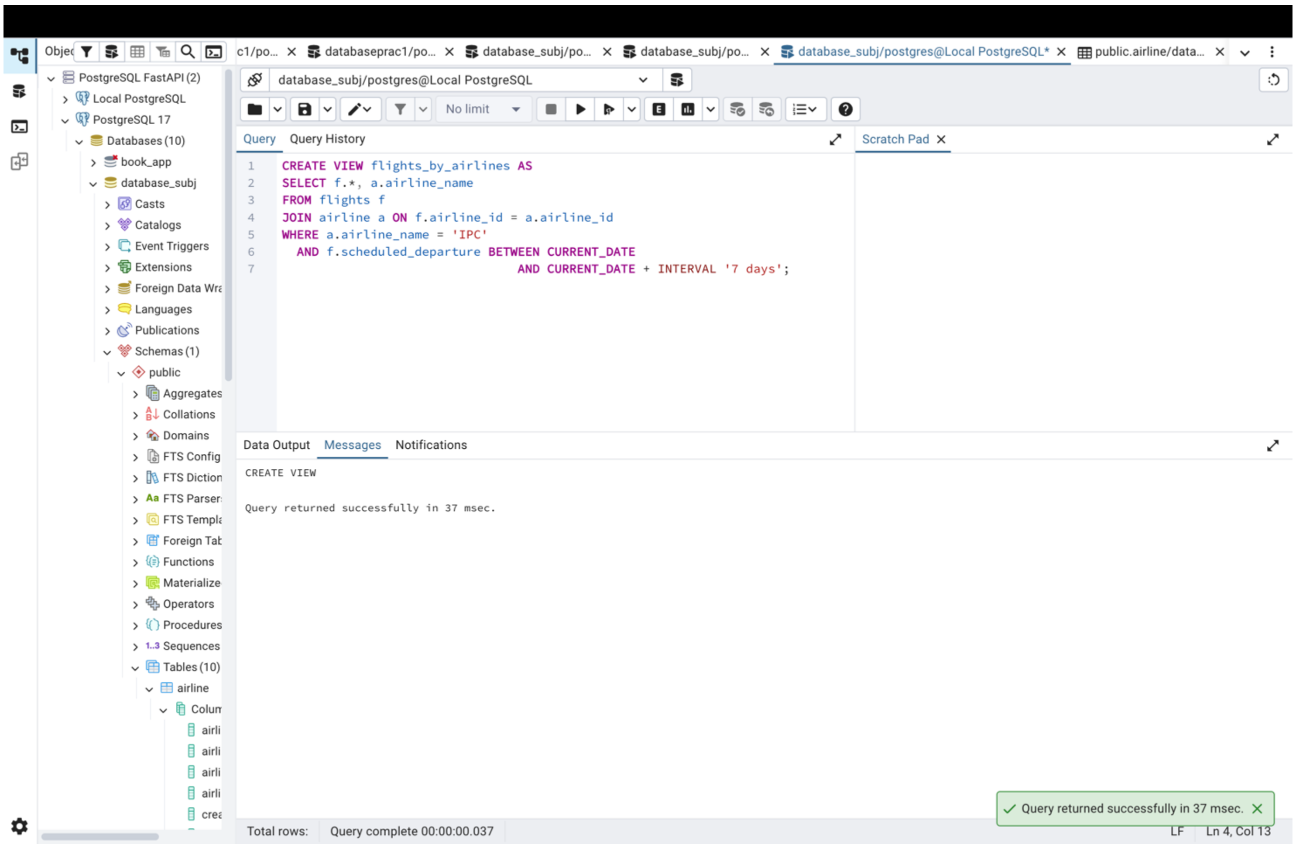
```sql
CREATE VIEW flights_by_airlines AS
SELECT f.*, a.airline_name
FROM flights f
JOIN airline a ON f.airline_id = a.airline_id
WHERE a.airline_name = 'IPC';
```

```
CREATE VIEW

Query returned successfully in 74 msec.
```

Total rows: Query complete 00:00:00.074

5. Modify the view created in task 4 to show only flights departing within the next 7 days for a specific airline.



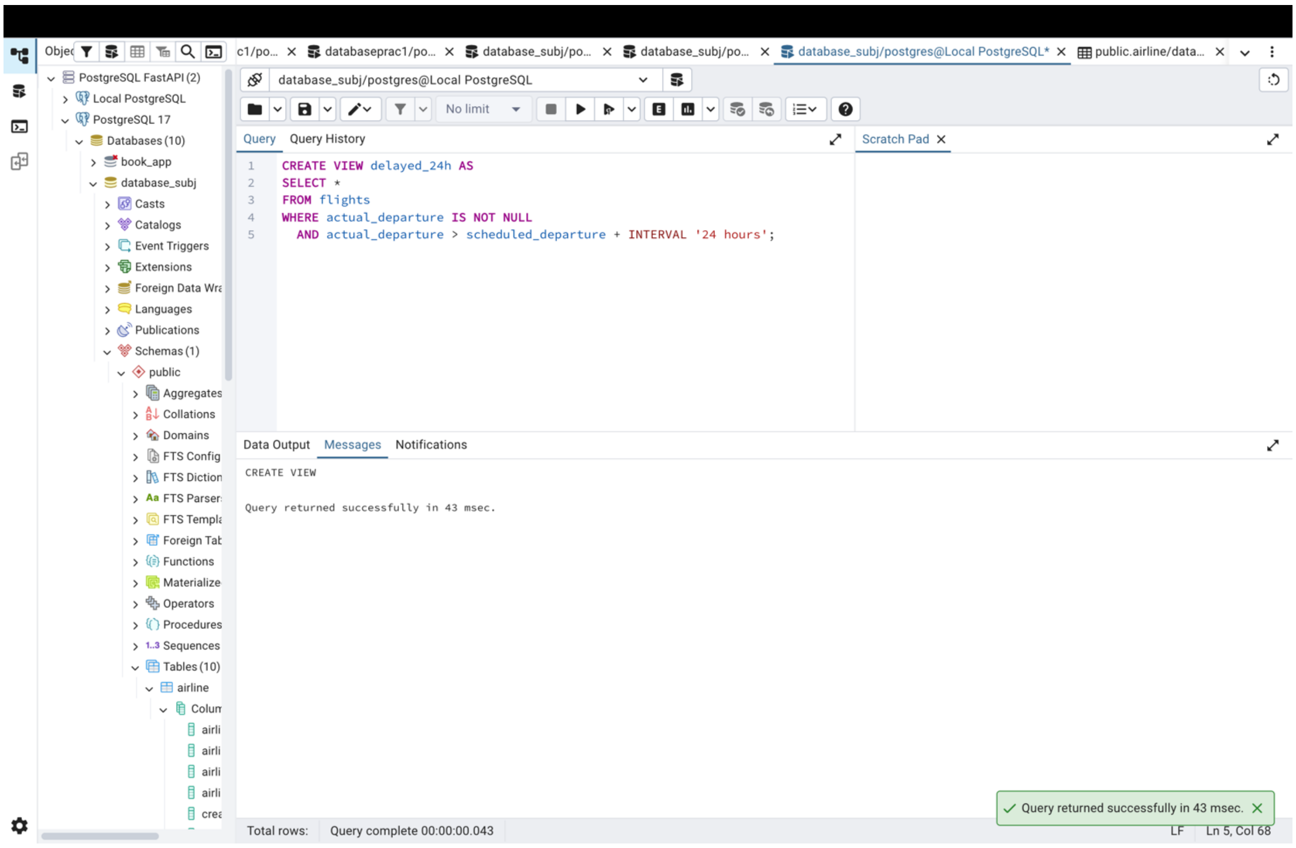
```sql
CREATE VIEW flights_by_airlines AS
SELECT f.*, a.airline_name
FROM flights f
JOIN airline a ON f.airline_id = a.airline_id
WHERE a.airline_name = 'IPC'
  AND f.scheduled_departure BETWEEN CURRENT_DATE
                               AND CURRENT_DATE + INTERVAL '7 days';
```

```
CREATE VIEW

Query returned successfully in 37 msec.
```

Total rows: Query complete 00:00:00.037

6. Create a view to show flights that are delayed by more than 24 hours.



```
CREATE VIEW delayed_24h AS
SELECT *
FROM flights
WHERE actual_departure IS NOT NULL
  AND actual_departure > scheduled_departure + INTERVAL '24 hours';
```

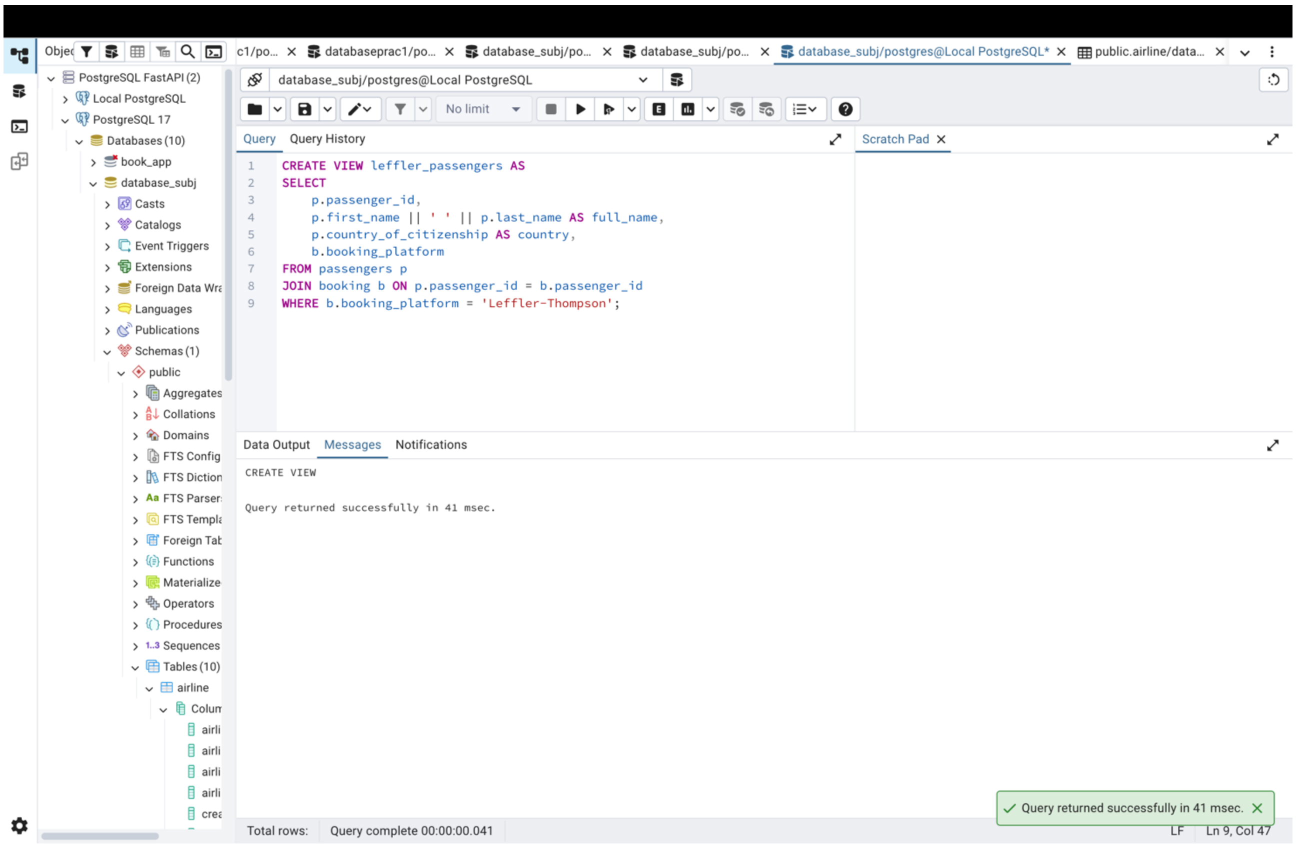
```
CREATE VIEW

Query returned successfully in 43 msec.
```

Query returned successfully in 43 msec.

Total rows: Query complete 00:00:00.043

7. Create a view in which you can display the full name and country of origin of passengers who made bookings on Leffler-Thompson platform. Then show the list of that passengers.



```
CREATE VIEW leffler_passengers AS
SELECT
    p.passenger_id,
    p.first_name || ' ' || p.last_name AS full_name,
    p.country_of_citizenship AS country,
    b.booking_platform
FROM passengers p
JOIN booking b ON p.passenger_id = b.passenger_id
WHERE b.booking_platform = 'Leffler-Thompson';
```

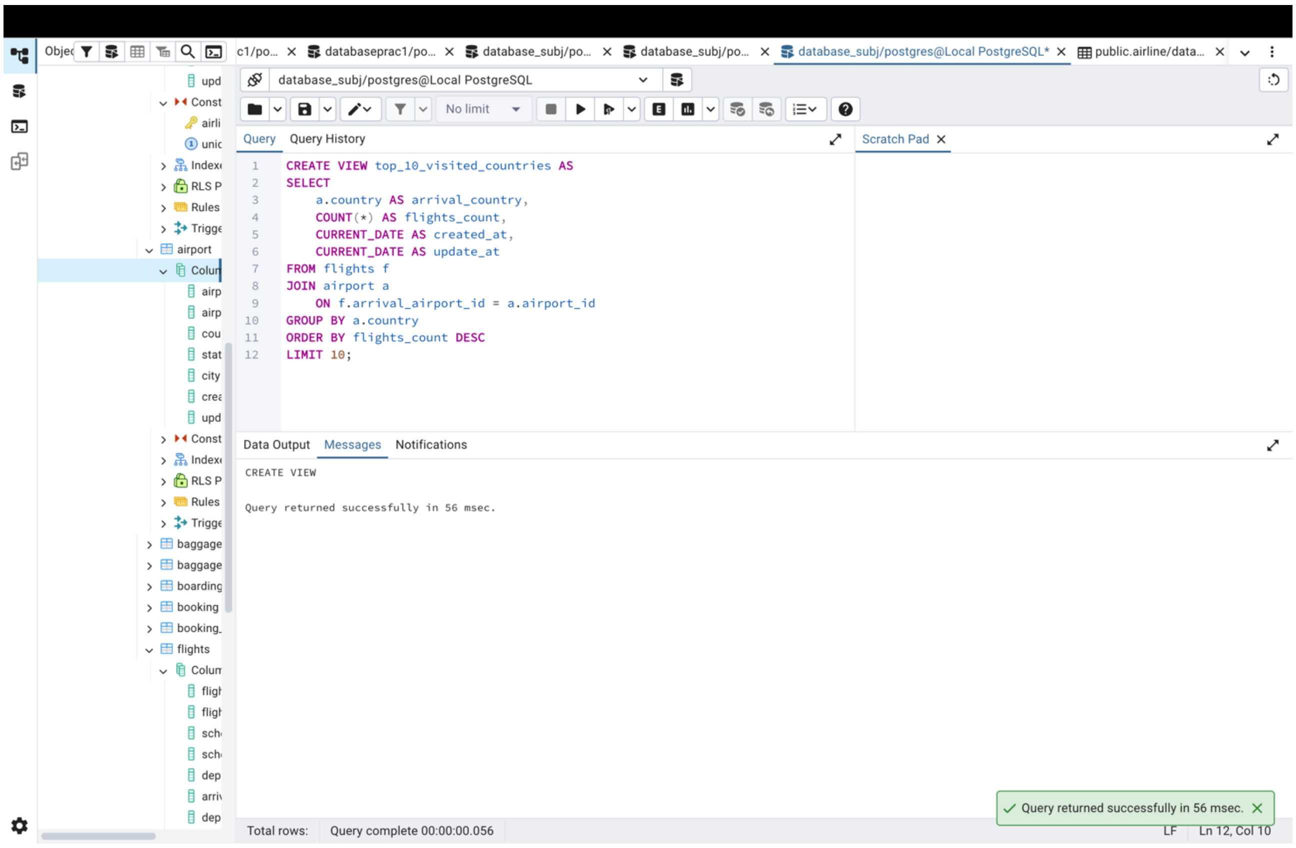
```
CREATE VIEW

Query returned successfully in 41 msec.
```

Query returned successfully in 41 msec.

Total rows: Query complete 00:00:00.041

8. Create a view that shows top 10 most visited countries.



```sql
CREATE VIEW top_10_visited_countries AS
SELECT
    a.country AS arrival_country,
    COUNT(*) AS flights_count,
    CURRENT_DATE AS created_at,
    CURRENT_DATE AS update_at
FROM flights f
JOIN airport a
    ON f.arrival_airport_id = a.airport_id
GROUP BY a.country
ORDER BY flights_count DESC
LIMIT 10;
```

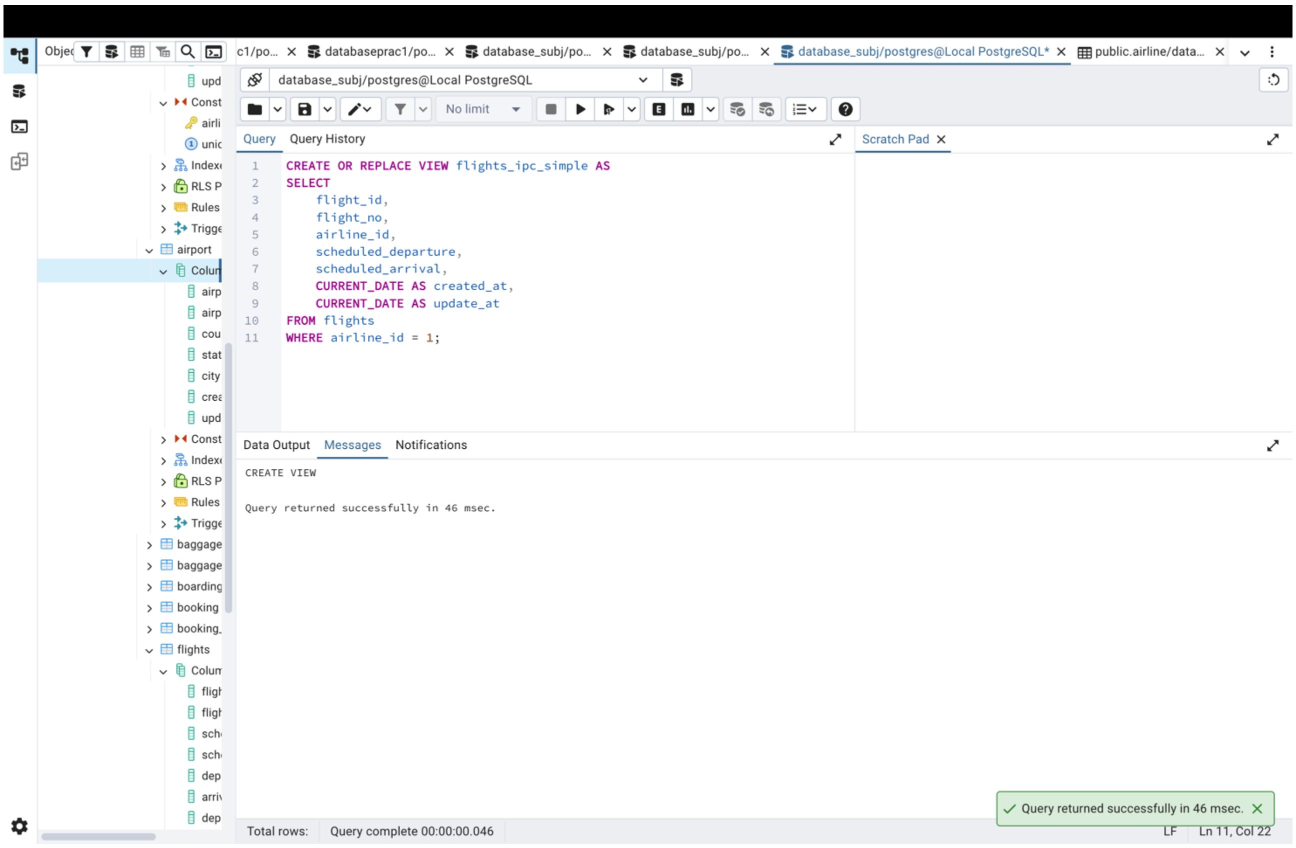
```
CREATE VIEW

Query returned successfully in 56 msec.
```

Query returned successfully in 56 msec.

Total rows: Query complete 00:00:00.056

9. Update any of the created views by adding new information in the view table. Show results.



```sql
CREATE OR REPLACE VIEW flights_ipc_simple AS
SELECT
    flight_id,
    flight_no,
    airline_id,
    scheduled_departure,
    scheduled_arrival,
    CURRENT_DATE AS created_at,
    CURRENT_DATE AS update_at
FROM flights
WHERE airline_id = 1;
```

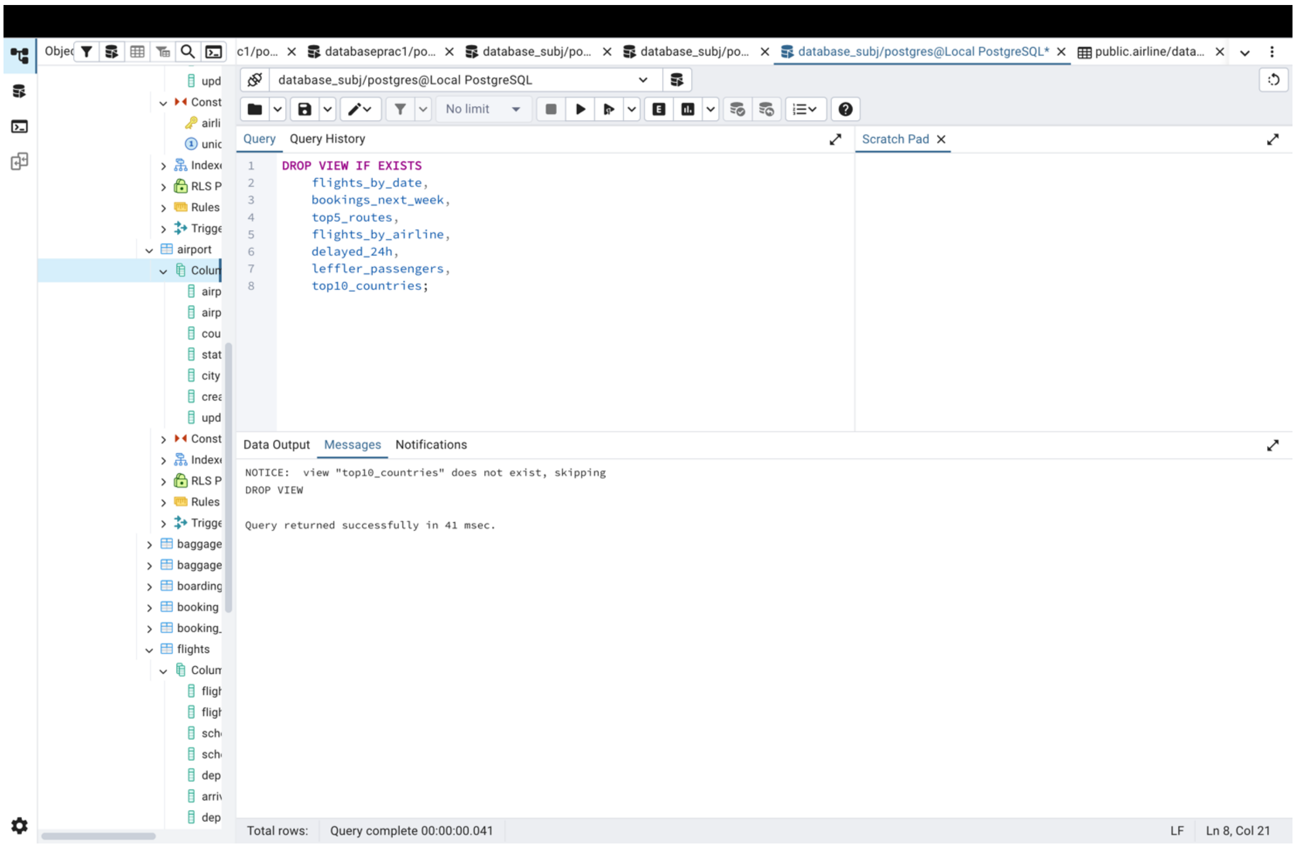
```
CREATE VIEW

Query returned successfully in 46 msec.
```

Query returned successfully in 46 msec.

Total rows: Query complete 00:00:00.046

10. Drop all existing views.



```
DROP VIEW IF EXISTS
    flights_by_date,
    bookings_next_week,
    top5_routes,
    flights_by_airline,
    delayed_24h,
    leffler_passengers,
    top10_countries;
```

```
NOTICE:  view "top10_countries" does not exist, skipping
DROP VIEW

Query returned successfully in 41 msec.
```

Total rows: Query complete 00:00:00.041 LF Ln 8, Col 21