

Laboratory work 8

1.

The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays the database structure, with the 'flights' table selected. The main pane shows a SQL query editor with the following code:

```
1 CREATE VIEW departing_flight_today AS
2 SELECT
3     flight_id,
4     scheduled_departure,
5     scheduled_arrival,
6     departing_gate,
7     arriving_gate,
8     status,
9     actual_departure,
10    actual_arrival
11 FROM
12     flights
13 WHERE
14     DATE(scheduled_departure) = CURRENT_DATE;
```

The query is executed successfully, returning 291 rows in 291 msec. The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.291'.

2.

The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays the database structure, with the 'booking_flight' table selected. The main pane shows a SQL query editor with the following code:

```
1 CREATE VIEW next_week_flights AS
2 SELECT
3     b.booking_id,
4     b.passenger_id,
5     f.flight_id,
6     f.scheduled_departure,
7     f.scheduled_arrival
8 FROM booking b
9 LEFT JOIN booking_flight bf ON b.booking_id = bf.booking_id
10 LEFT JOIN flights f ON bf.flight_id = f.flight_id
11 WHERE DATE(f.scheduled_departure) BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '1 week';
```

The query is executed successfully, returning 65 rows in 65 msec. The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.065'.

3.

pgAdmin 4

File Object Tools Edit View Window Help

lab2/postgres@PostgreSQL 17*

Object Explorer

- 1.3 Sequences
- Tables (10)
 - airline
 - airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
 - flights
 - Columns (14)
 - flight_id
 - flight_no
 - scheduled_departure
 - scheduled_arrival
 - departure_airport_id
 - arrival_airport_id
 - departing_gate
 - arriving_gate

Query

```
1 CREATE VIEW five_most_popular_routes AS
2 SELECT
3     a.airport_name,
4     COUNT(a.airport_id)
5 FROM flights f
6 LEFT JOIN airport a ON a.airport_id = f.departure_airport_id
7 GROUP BY a.airport_id
8 ORDER BY COUNT(a.airport_id) DESC
9 LIMIT 5;
```

Scratch Pad

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 83 msec.

Total rows: Query complete 00:00:00.083 CRLF Ln 6, Col 40

4.

pgAdmin 4

File Object Tools Edit View Window Help

lab2/postgres@PostgreSQL 17*

Object Explorer

- 1.3 Sequences
- Tables (10)
 - airline
 - Columns (6)
 - airline_id
 - airline_code
 - airline_name
 - airline_country
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - airport
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
 - flights
 - Columns (14)
 - flight_id
 - flight_no
 - scheduled_departure
 - scheduled_arrival

Query

```
1 CREATE VIEW ipc_airline_flights AS
2 SELECT
3     flight_id
4 FROM flights f
5 LEFT JOIN airline a ON a.airline_id = f.airline_id
6 WHERE a.airline_name = 'IPC';
7
```

Scratch Pad

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 72 msec.

Total rows: Query complete 00:00:00.072

✓ Query returned successfully in 72 msec. ✕ CRLF Ln 6, Col 30

5.

pgAdmin 4

File Object Tools Edit View Window Help

lab2/postgres@PostgreSQL 17*

lab2/postgres@PostgreSQL 17

Query Query History

```

1 CREATE OR REPLACE VIEW ipc_airline_flights AS
2 SELECT
3     flight_id
4 FROM flights f
5 LEFT JOIN airline a ON a.airline_id = f.airline_id
6 WHERE a.airline_name = 'IPC'
7 AND DATE(f.scheduled_departure) BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '1 week';
8

```

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 78 msec.

Total rows: Query complete 00:00:00.070 CRLF Ln 1, Col 18

6.

pgAdmin 4

File Object Tools Edit View Window Help

lab2/postgres@PostgreSQL 17*

lab2/postgres@PostgreSQL 17

Query Query History

```

1 CREATE VIEW delayed_flights AS
2 SELECT
3     flight_id,
4     scheduled_departure,
5     actual_departure
6 FROM flights
7 WHERE DATE(actual_departure) - DATE(scheduled_departure) > 1;

```

Data Output Messages Notifications

ERROR: ошибка синтаксиса (примерное положение: "day")
 LINE 7: ... DATE(actual_departure) - DATE(scheduled_departure) > 1 day;
 ^

ОШИБКА: ошибка синтаксиса (примерное положение: "day")
 SQL state: 42601
 Character: 166

Total rows: Query complete 00:00:00.076 CRLF Ln 7, Col 62

7.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- airline
 - Columns (6)
 - airline_id
 - airline_code
 - airline_name
 - airline_country
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage
- baggage_check
- boarding_pass
- booking
- booking_flight
- flights

lab2/postgres@PostgreSQL 17*

lab2/postgres@PostgreSQL 17

Query Query History

```

1 CREATE VIEW passengers_to_leffler_thompson AS
2 SELECT
3     CONCAT(p.first_name, ' ', p.last_name) AS full_name,
4     country_of_citizenship
5 FROM
6     passengers p
7 LEFT JOIN booking b ON b.passenger_id = p.passenger_id
8 LEFT JOIN booking_flight bf ON bf.booking_id = b.booking_id
9 LEFT JOIN flights f ON f.flight_id = bf.flight_id
10 LEFT JOIN airport a ON a.airport_id = f.arrival_airport_id
11 WHERE
12     a.airport_name = 'Leffler-Thompson';

```

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 97 msec.

Total rows: Query complete 00:00:00.097 CRLF Ln 11, Col 38

8.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- airline
 - Columns (6)
 - airline_id
 - airline_code
 - airline_name
 - airline_country
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage
- baggage_check
- boarding_pass
- booking
- booking_flight
- flights

lab2/postgres@PostgreSQL 17*

lab2/postgres@PostgreSQL 17

Query Query History

```

1 CREATE VIEW most_visited_countries AS
2 SELECT
3     country,
4     COUNT(country)
5 FROM
6     airport
7 GROUP BY
8     country
9 ORDER BY
10    COUNT(country) DESC
11 LIMIT 10;

```

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 85 msec.

Total rows: Query complete 00:00:00.085 CRLF Ln 8, Col 10

9.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- airline_id
- airline_code
- airline_name
- airline_country
- created_at
- update_at
- Constraints
- Indexes
- RLS Policies
- Rules
- Triggers
- airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - update_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- baggage
- baggage_check
- boarding_pass
- booking
- booking_flight
- flights
 - Columns (14)
 - flight_id

lab2/postgres@PostgreSQL 17*

lab2/postgres@PostgreSQL 17

Query Query History

```
1 CREATE OR REPLACE VIEW passengers_to_leffler_thompson AS
2 SELECT
3     CONCAT(p.first_name, ' ', p.last_name) AS full_name,
4     country_of_citizenship
5 FROM
6     passengers p
7 LEFT JOIN booking b ON b.passenger_id = p.passenger_id
8 LEFT JOIN booking_flight bf ON bf.booking_id = b.booking_id
9 LEFT JOIN flights f ON f.flight_id = bf.flight_id
10 LEFT JOIN airport a ON a.airport_id = f.arrival_airport_id
11 WHERE
12     a.airport_name = 'Leffler-Thompson'
13     AND DATE(f.scheduled_departure) < CURRENT_DATE + INTERVAL '1 week';
```

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 78 msec.

Total rows: Query complete 00:00:00.070 CRLF Ln 12, Col 69

10.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- Languages
- Publications
- Schemas (1)
 - public
 - Aggregates
 - Collations
 - Domains
 - FTS Configurations
 - FTS Dictionaries
 - FTS Parsers
 - FTS Templates
 - Foreign Tables
 - Functions
 - Materialized Views
 - Operators
 - Procedures
 - Sequences
 - Tables (10)
 - Trigger Functions
 - Types
 - Views (7)
 - delayed_flights
 - departing_flight_today
 - five_most_popular_routes
 - ipc_airline_flights
 - most_visited_countries
 - next_week_flights
 - passengers_to_leffler_thompson
 - Subscriptions
- postgres
- Login/Group Roles
- Tablespaces

lab2/postgres@PostgreSQL 17*

lab2/postgres@PostgreSQL 17

Query Query History

```
1 DROP VIEW delayed_flights;
2 DROP VIEW departing_flight_today;
3 DROP VIEW five_most_popular_routes;
4 DROP VIEW ipc_airline_flights;
5 DROP VIEW most_visited_countries;
6 DROP VIEW next_week_flights;
7 DROP VIEW passengers_to_leffler_thompson;
```

Data Output Messages Notifications

DROP VIEW

Query returned successfully in 81 msec.

Total rows: Query complete 00:00:00.081 CRLF Ln 7, Col 42