

TASK 1

The screenshot displays the pgAdmin 4 web interface. On the left, the Object Explorer shows the database structure: Servers > PostgreSQL 17 > Databases > Airport > Schemas > public > Tables > flights. The 'flights' table is selected, showing its columns: flight_id, sch_departure_time, sch_arrival_time, departing_airport_id, arriving_airport_id, departing_gate, arriving_gate, airline_id, act_departure_time, act_arrival_time, created_at, updated_at, and flight_no.

The main pane shows a SQL query being executed in the 'Airport/postgres@PostgreSQL 17' connection. The query is:

```
1 CREATE VIEW v_flights AS
2 SELECT
3     flight_id,
4     sch_departure_time,
5     sch_arrival_time,
6     departing_airport_id,
7     arriving_airport_id,
8     departing_gate,
9     arriving_gate,
10    airline_id,
11    act_departure_time,
12    act_arrival_time,
13    created_at,
14    updated_at,
15    flight_no
16 FROM flights
17 WHERE DATE(sch_departure_time) = '2024-12-03'
```

The bottom pane shows the 'Messages' tab with the output: 'CREATE VIEW' and 'Query returned successfully in 234 msec.'

The status bar at the bottom indicates the current location: Servers > PostgreSQL 17 > Databases > Airport > Schemas > public > Tables > flights, with a timestamp of 00:00.234, CRLF line endings, and cursor position Ln 10, Col 13. The system taskbar at the very bottom shows the time as 17:11 on 13.11.2025.

TASK 2

The screenshot displays the pgAdmin 4 web interface. On the left, the Object Explorer shows the database structure for 'Airport/postgres@PostgreSQL 17'. The 'flights' table is expanded, showing its 13 columns: flight_id, sch_departure_time, sch_arrival_time, departing_airport_id, arriving_airport_id, departing_gate, arriving_gate, and airline_id. The main query editor shows a SQL query to create a view and select data from the 'booking' and 'flights' tables. The query is as follows:

```
1 CREATE VIEW v_next_week_bookings AS
2 SELECT
3     b.booking_id
4 FROM booking b
5 JOIN flights f ON b.flight_id = f.flight_id
6 WHERE DATE(f.sch_departure_time) BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '7 day';
```

The query has been executed successfully, as indicated by the 'Messages' tab at the bottom, which shows the message: 'Query returned successfully in 50 msec.' The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.050' and 'Ln 6, Col 34'.

TASK 3

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- baggage
- baggage_check
- boarding_pass
- booking
 - Columns (9)
 - booking_id
 - flight_id
 - passenger_id
 - booking_platform
 - created_at
 - updated_at
 - status
 - ticket_price
 - ticket_discount
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
- booking_flight
- flights
 - Columns (13)
 - flight_id
 - sch_departure_time
 - sch_arrival_time
 - departing_airport_id
 - arriving_airport_id
 - departing_gate
 - arriving_gate
 - airline_id

Airport/postgres@PostgreSQL 17* x public.flights/Airp... x

Airport/postgres@PostgreSQL 17

Query Query History

```
1 CREATE VIEW v_top5_routes AS
2 SELECT
3     f.departing_airport_id,
4     f.arriving_airport_id,
5     COUNT(b.booking_id) AS bookings
6 FROM booking b
7 JOIN flights f ON b.flight_id = f.flight_id
8 GROUP BY f.departing_airport_id, f.arriving_airport_id
9 ORDER BY bookings DESC
10 LIMIT 5;
```

Scratch Pad x

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 62 msec.

Total rows: Query complete 00:00:00.062 CRLF Ln 10, Col 9



Поиск



17:26
13.11.2025

TASK 4

The screenshot displays the pgAdmin 4 web interface. On the left, the 'Object Explorer' pane shows a tree structure of database objects. The 'airline' table is selected under the 'public' schema. The main pane shows a SQL query being executed in the 'Query' tab. The query is as follows:

```
1 CREATE VIEW v_airline AS
2 SELECT
3     f.flight_id,
4     a.airline_name
5 FROM flights f
6 JOIN airline a ON f.airline_id = a.airline_id
7 WHERE a.airline_name = 'FlyFly_13'
8
```

The 'Messages' tab at the bottom shows the execution result: 'Query returned successfully in 49 msec.' The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.049' and 'Ln 3, Col 14'.



Поиск



TASK 5

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- created_at
- updated_at
- > Constraints
- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > airport
- > baggage
- > baggage_check
- > boarding_pass
- > booking
- > booking_flight
- > flights
 - Columns (13)
 - flight_id
 - sch_departure_time
 - sch_arrival_time
 - departing_airport_id
 - arriving_airport_id
 - departing_gate
 - arriving_gate
 - airline_id
 - act_departure_time
 - act_arrival_time
 - created_at
 - updated_at
 - flight_no
 - > Constraints
 - > Indexes

Airport/postgres@PostgreSQL 17* x public.airline/Airp... x

Airport/postgres@PostgreSQL 17

No limit

Query Query History

```
1 CREATE OR REPLACE VIEW v_airline AS
2 SELECT
3     f.flight_id,
4     a.airline_name
5 FROM flights f
6 JOIN airline a ON f.airline_id = a.airline_id
7 WHERE a.airline_name = 'FlyFly_13'
8 AND DATE(f.sch_departure_time) BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '7 days'
9
```

Scratch Pad x

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 54 msec.

Total rows: Query complete 00:00:00.054

CRLF Ln 8, Col 89



Поиск



17:34
13.11.2025

TASK 6

The screenshot displays the pgAdmin 4 web interface. On the left, the Object Explorer shows a tree view of the database schema, with the 'flights' table expanded to show its columns: flight_id, sch_departure_time, sch_arrival_time, departing_airport_id, arriving_airport_id, departing_gate, arriving_gate, airline_id, act_departure_time, act_arrival_time, created_at, updated_at, and flight_no. The main query editor is active, showing a SQL query to create or replace a view named v_delayed_flights. The query selects columns from the flights table and filters for flights that are delayed by more than 24 hours. The bottom panel shows the query execution results, indicating that the view was created successfully in 77 milliseconds. The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.077' and 'Ln 15, Col 1'.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- created_at
- updated_at
- > Constraints
- > Indexes
- > RLS Policies
- > Rules
- > Triggers
- > airport
- > baggage
- > baggage_check
- > boarding_pass
- > booking
- > booking_flight
- > flights
 - Columns (13)
 - flight_id
 - sch_departure_time
 - sch_arrival_time
 - departing_airport_id
 - arriving_airport_id
 - departing_gate
 - arriving_gate
 - airline_id
 - act_departure_time
 - act_arrival_time
 - created_at
 - updated_at
 - flight_no
 - > Constraints
 - > Indexes

Airport/postgres@PostgreSQL 17* x public.airline/Airp... x

Airport/postgres@PostgreSQL 17

Query Query History

```
1 CREATE OR REPLACE VIEW v_delayed_flights AS
2 SELECT
3     flight_id,
4     departing_airport_id,
5     arriving_airport_id,
6     departing_gate,
7     arriving_gate,
8     airline_id,
9     created_at,
10    updated_at,
11    flight_no,
12    act_departure_time - sch_departure_time AS delay
13 FROM flights
14 WHERE act_departure_time - sch_departure_time > INTERVAL '24 hours';
15
```

Scratch Pad x

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 77 msec.

Total rows: Query complete 00:00:00.077 CRLF Ln 15, Col 1

17:38 13.11.2025

TASK 7

The screenshot displays the pgAdmin 4 web interface. On the left, the Object Explorer shows the database structure, with the 'booking' table selected under the 'airport' schema. The main query editor shows a SQL script to create a view named 'v_passengers' that selects passenger details and booking information from the 'passengers' and 'booking' tables. The query is as follows:

```
1 CREATE VIEW v_passengers AS
2 SELECT
3     p.first_name || ' ' || last_name AS Full_Name,
4     p.country_of_citizenship,
5     b.booking_platform
6 FROM passengers p
7 JOIN booking b ON b.passenger_id = p.passenger_id
```

Below the query editor, the 'Messages' tab shows the execution status: 'CREATE VIEW' and 'Query returned successfully in 60 msec.' The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.060' and the cursor position is 'Ln 6, Col 16'.



Поиск



17:44
13.11.2025

TASK 8

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- Tables (10)
 - airline
 - airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - Columns (9)
 - booking_id
 - flight_id
 - passenger_id
 - booking_platform
 - created_at
 - updated_at
 - status
 - ticket_price
 - ticket_discount
 - Constraints

Airport/postgres@PostgreSQL 17*

public.passengers... public.booking/Air...

Airport/postgres@PostgreSQL 17

No limit

Query Query History

```
1 CREATE VIEW v_top_10_visited_country AS
2 SELECT
3     a.country,
4     COUNT(b.booking_id) AS Number_of_visits
5 FROM flights f
6 JOIN booking b ON b.flight_id = f.flight_id
7 JOIN airport a ON f.arriving_airport_id = a.airport_id
8 GROUP BY a.country
9 ORDER BY Number_of_visits DESC
10 LIMIT 10;
11
```

Scratch Pad

Data Output Messages Notifications

CREATE VIEW

Query returned successfully in 53 msec.

Total rows: Query complete 00:00:00.053 CRLF Ln 4, Col 17



Поиск



17:52
13.11.2025

TASK 9

pgAdmin 4

Object Explorer

- RLS Policies
- Rules
- Triggers
- baggage
- baggage_check
- boarding_pass
- booking
- Columns (9)
 - booking_id
 - flight_id
 - passenger_id
 - booking_platform
 - created_at
 - updated_at
 - status
 - ticket_price
 - ticket_discount
- Constraints
- Indexes
- RLS Policies
- Rules
- Triggers
- booking_flight
- flights
- passengers
- Columns (10)
- Constraints
- Indexes
- RLS Policies
- Rules

Query

```
SELECT * FROM v_passengers
```

Data Output

	full_name text	country_of_citizenship character varying (50)	booking_platform character varying (50)
1	Pavel Wilson	USA	Leffler-Thompson
2	Ivan Petrov	China	Leffler-Thompson
3	Alex Ivanov	Germany	Kiosk
4	Alex Wilson	Spain	Website
5	Ivan Wilson	China	Website
6	Olga Smith	USA	Agency
7	Sara Wilson	Germany	Website

Total rows: 200 Query complete 00:00:00.135

BEFORE

pgAdmin 4

Object Explorer

- RLS Policies
- Rules
- Triggers
- baggage
- baggage_check
- boarding_pass
- booking
- Columns (9)
 - booking_id
 - flight_id
 - passenger_id
 - booking_platform
 - created_at
 - updated_at
 - status
 - ticket_price
 - ticket_discount
- Constraints
- Indexes
- RLS Policies
- Rules
- Triggers
- booking_flight
- flights
- passengers
- Columns (10)
- Constraints
- Indexes
- RLS Policies
- Rules

Query

```
SELECT * FROM v_passengers
```

Data Output

	full_name text	country_of_citizenship character varying (50)	booking_platform character varying (50)	passport_number character varying (20)	ticket_price numeric (7,2)
1	Pavel Wilson	USA	Leffler-Thompson	P00086995	948.05
2	Ivan Petrov	China	Leffler-Thompson	P00011332	253.24
3	Alex Ivanov	Germany	Kiosk	P00193713	991.58
4	Alex Wilson	Spain	Website	P00109254	1147.86
5	Ivan Wilson	China	Website	P00125906	4062.10
6	Olga Smith	USA	Agency	P00003595	1246.04
7	Sara Wilson	Germany	Website	P00181288	2832.11

Total rows: 200 Query complete 00:00:00.065

AFTER

TASK 10

The screenshot displays the pgAdmin 4 web interface. On the left, the Object Explorer shows a tree structure of database objects. The 'airport' database is selected, and its 'Columns' are expanded, showing attributes like 'airport_id', 'airport_name', 'country', 'state', 'city', 'created_at', and 'updated_at'. The main pane shows a SQL query being executed in the 'Query' tab. The query consists of seven 'DROP VIEW IF EXISTS' statements for views named 'v_flights', 'v_next_week_bookings', 'v_top5_routes', 'v_airline', 'v_delayed_flights', 'v_passengers', and 'v_top_10_visited_country'. The 'Messages' tab at the bottom shows the execution result: 'Query returned successfully in 64 msec.' The status bar at the bottom indicates 'Total rows: Query complete 00:00:00.064' and 'Ln 10, Col 1'.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- > Functions
- > Materialized Views
- > Operators
- > Procedures
- > 1.3 Sequences
- > Tables (10)
 - > airline
 - > airport
 - > Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
 - > Constraints
 - > Indexes
 - > RLS Policies
 - > Rules
 - > Triggers
 - > baggage
 - > baggage_check
 - > boarding_pass
 - > booking
 - > Columns (9)
 - booking_id
 - flight_id
 - passenger_id
 - booking_platform

Airport/postgres@PostgreSQL 17* x

Airport/postgres@PostgreSQL 17

No limit

Query Query History

```
1 DROP VIEW IF EXISTS v_flights;
2 DROP VIEW IF EXISTS v_next_week_bookings;
3 DROP VIEW IF EXISTS v_top5_routes;
4 DROP VIEW IF EXISTS v_airline;
5 DROP VIEW IF EXISTS v_delayed_flights;
6 DROP VIEW IF EXISTS v_passengers;
7 DROP VIEW IF EXISTS v_top_10_visited_country;
8
9
10
```

Scratch Pad x

Data Output Messages Notifications

DROP VIEW

Query returned successfully in 64 msec.

Total rows: Query complete 00:00:00.064 CRLF Ln 10, Col 1

18:00 13.11.2025