

Laboratory work 6

1.

The screenshot shows the pgAdmin 4 interface with the following details:

- Object Explorer:** Shows the database structure with the **airline** table expanded, displaying columns: airline_id, airline_code, airline_name, airline_country, created_at, and updated_at.
- Query Editor:** Contains the following SQL query:

```
1 SELECT *
2 FROM flights f
3 JOIN airline a ON f.airline_id = a.airline_id;
```
- Data Output:** Displays the results of the query. The table has columns: flight_id, sch_departure_time, sch_arrival_time, departing_airport_id, arriving_airport_id, departing_gate, arriving_gate, airline_id, and act_d times. The data shows 5 rows of flight information.
- Message Bar:** Shows "Total rows: 5 Query complete 00:00:00.192 CRLF Ln 3, Col 47".

2.

The screenshot shows the pgAdmin 4 interface with the following details:

- Object Explorer:** Shows the database structure with the **airport** table expanded, displaying columns: airport_id, airport_name, country, state, city, created_at, and updated_at.
- Query Editor:** Contains the following SQL query:

```
1 SELECT *
2 FROM flights f
3 JOIN airport a ON f.departing_airport_id = airport_id;
```
- Data Output:** Displays the results of the query. The table has columns: time zone, created_at, updated_at, airport_id, airport_name, country, state, and city. The data shows 5 rows of airport information.
- Message Bar:** Shows "Total rows: 5 Query complete 00:00:00.066 CRLF Ln 3, Col 55".

3.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- > RLS Policies
- > Rules
- > Triggers
- 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
- booking_flight
- employee
- flights
 - > Columns (12)
 - flight_id
 - sch_departure_time
 - sch_arrival_time
 - departing_airport_id
 - arriving_airport_id
 - departing_gate
 - arriving_gate

lab2/postgres@PostgreSQL 17* X

Query Query History

```
1 SELECT a.airline_id, a.airline_name
2 FROM airline a
3 LEFT JOIN flights f
4 ON a.airline_id = f.fairline_id
5 AND f.sch_departure_time >= CURRENT_DATE
6 AND f.sch_departure_time < CURRENT_DATE + INTERVAL '1 month'
7 WHERE f.flight_id IS NULL;
```

Data Output Messages Notifications

airline_id	airline_name
1	AirEasy
2	FlyFly
3	KazAir
4	FlyHigh

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

Total rows: 4 Query complete 00:00:00.109 CRLF Ln 1, Col 32

4.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- > RLS Policies
- > Rules
- > Triggers
- 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

lab2/postgres@PostgreSQL 17* X

Query Query History

```
1 SELECT first_name, last_name
2 FROM passengers p
3 JOIN booking b ON p.passenger_id = b.passenger_id
4 WHERE b.flight_id = 102;
```

Data Output Messages Notifications

first_name	last_name
Dias	Bek

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

Total rows: 1 Query complete 00:00:00.068 CRLF Ln 4, Col 8

5.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- 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
- ▶ Indexes
- ▶ RLS Policies
- ▶ Rules
- > Triggers

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Query Query History

```

1  SELECT
2    flight_id,
3    AVG(ticket_price) AS average_price,
4    SUM(ticket_price) AS total_price,
5    MAX(ticket_price) AS max_price,
6    MIN(ticket_price) AS min_price
7  FROM booking
8  GROUP BY(flight_id);

```

Data Output Messages Notifications

flight_id	average_price	total_price	max_price	min_price
103	10000.000000000000000000	10000.00	10000.00	10000.00
105	10000.000000000000000000	10000.00	10000.00	10000.00
101	50000.000000000000000000	50000.00	50000.00	50000.00
106	10000.000000000000000000	10000.00	10000.00	10000.00
104	28000.000000000000000000	28000.00	28000.00	28000.00
110	10000.000000000000000000	10000.00	10000.00	10000.00
107	10000.000000000000000000	10000.00	10000.00	10000.00
102	10000.000000000000000000	10000.00	10000.00	10000.00
109	10000.000000000000000000	10000.00	10000.00	10000.00
108	30000.000000000000000000	30000.00	30000.00	30000.00

Total rows: 10 Query complete 00:00:00.125 CRLF Ln 7, Col 13

6.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- Tables (11)
- ▶ airline
 - Columns (6)
 - airline_id
 - airline_code
 - airline_name
 - airline_country
 - created_at
 - updated_at
- ▶ Constraints
- ▶ Indexes
- ▶ RLS Policies
- ▶ Rules
- > Triggers
- ▶ airport
 - Columns (7)
 - airport_id
 - airport_name
 - country
 - state
 - city
 - created_at
 - updated_at
- ▶ Constraints
- ▶ Indexes
- ▶ RLS Policies
- ▶ Rules
- > baggage
- baggage_check
- boarding_pass
- booking
- booking_flight

lab2/postgres@PostgreSQL 17* X

Query Query History

```

1  SELECT
2    flights.flight_id,
3    airport.country
4  FROM flights
5  JOIN airport ON flights.arriving_airport_id = airport.airport_id
6  JOIN airline ON airline.airline_id = flights.airline_id
7  WHERE airport.country = 'Country_24';

```

Data Output Messages Notifications

flight_id	country
2	Country_24

Total rows: 1 Query complete 00:00:00.073 CRLF Ln 5, Col 1

7.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- 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
- employee
- flights**
- Columns(12)
 - flight_id
 - sch_departure_time
 - sch_arrival_time
 - departing_airport_id
 - arriving_airport_id
 - departing_gate
 - arriving_gate
 - airline_id

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Query History

```

1  SELECT
2    first_name || ' ' || last_name AS passenger,
3    airport.country AS arriving_country
4  FROM passengers
5  JOIN booking ON passengers.passenger_id = booking.passenger_id
6  JOIN flights ON flights.flight_id = booking.flight_id
7  JOIN airport ON airport.airport_id = flights.arriving_airport_id
8  WHERE AGE(CURRENT_DATE, passengers.date_of_birth) < INTERVAL '18 years';

```

Data Output

passenger	arriving_country
text	character varying (50)

Total rows: 0 Query complete 00:00:00.089 CRLF Ln 8, Col 73

8.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- departing_gate
- arriving_gate
- airline_id
- act_departure_time
- act_arrival_time
- created_at
- updated_at
- Constraints
- Indexes
- RLS Policies
- Rules
- Triggers
- passengers**
- Columns(10)
 - passenger_id
 - first_name
 - last_name
 - date_of_birth
 - gender
 - country_of_citizenship
 - country_of_residence
 - passport_number
 - created_at
 - updated_at
- Constraints
- Indexes
- RLS Policies
- Rules
- Triggers
- security_check
- Trigger Functions
- Types
- Views

lab2/postgres@PostgreSQL 17* X

Query History

```

1  SELECT
2    passengers.first_name || ' ' || passengers.last_name AS passenger,
3    passengers.passport_number,
4    flights.sch_arrival_time
5  FROM passengers
6  JOIN booking ON passengers.passenger_id = booking.passenger_id
7  JOIN flights ON booking.flight_id = flights.flight_id;

```

Data Output

passenger	passport_number	sch_arrival_time
text	character varying (20)	timestamp without time zone

Scratch Pad

Total rows: 0 Query complete 00:00:00.084 ✓ Successfully run. Total query runtime: 84 msec. 0 rows affected. CRLF Ln 7, Col 55

9.

pgAdmin 4

File Object Tools View Window Help

Object Explorer

Tables (11)

airline

Columns (6)

airline_id, airline_code, airline_name, airline_country, created_at, updated_at

Constraints

Indexes

RLS Policies

Rules

Triggers

airport

baggage

baggage_check

boarding_pass

booking

booking_flight

employee

flights

Columns (12)

flight_id, sch_departure_time, sch_arrival_time, departing_airport_id, arriving_airport_id, departing_gate, arriving_gate

lab2/postgres@PostgreSQL 17* X

Query History

Scratch Pad

```
1 SELECT
2     flights.flight_id,
3     airline.airline_name,
4     airport.country
5 FROM flights
6 JOIN airport ON airport.airport_id = flights.departing_airport_id
7 JOIN airline ON flights.airline_id = airline.airline_id
8 GROUP BY airport.country, flights.flight_id, airline.airline_name;
```

Data Output Messages Notifications

flight_id airline_name country

	flight_id	airline_name	country
1	4	AirEasy	Country_17
2	1	KazAir	Country_3
3	3	KazAir	Country_3
4	2	AirEasy	Country_7
5	5	FlyHigh	Country_8

Showing rows: 1 to 5 Page No: 1 of 1

Total rows: 5 Query complete 00:00:00.138 ✓ Successfully run. Total query runtime: 138 msec. 5 rows affected. CRLF Ln 8, Col 67