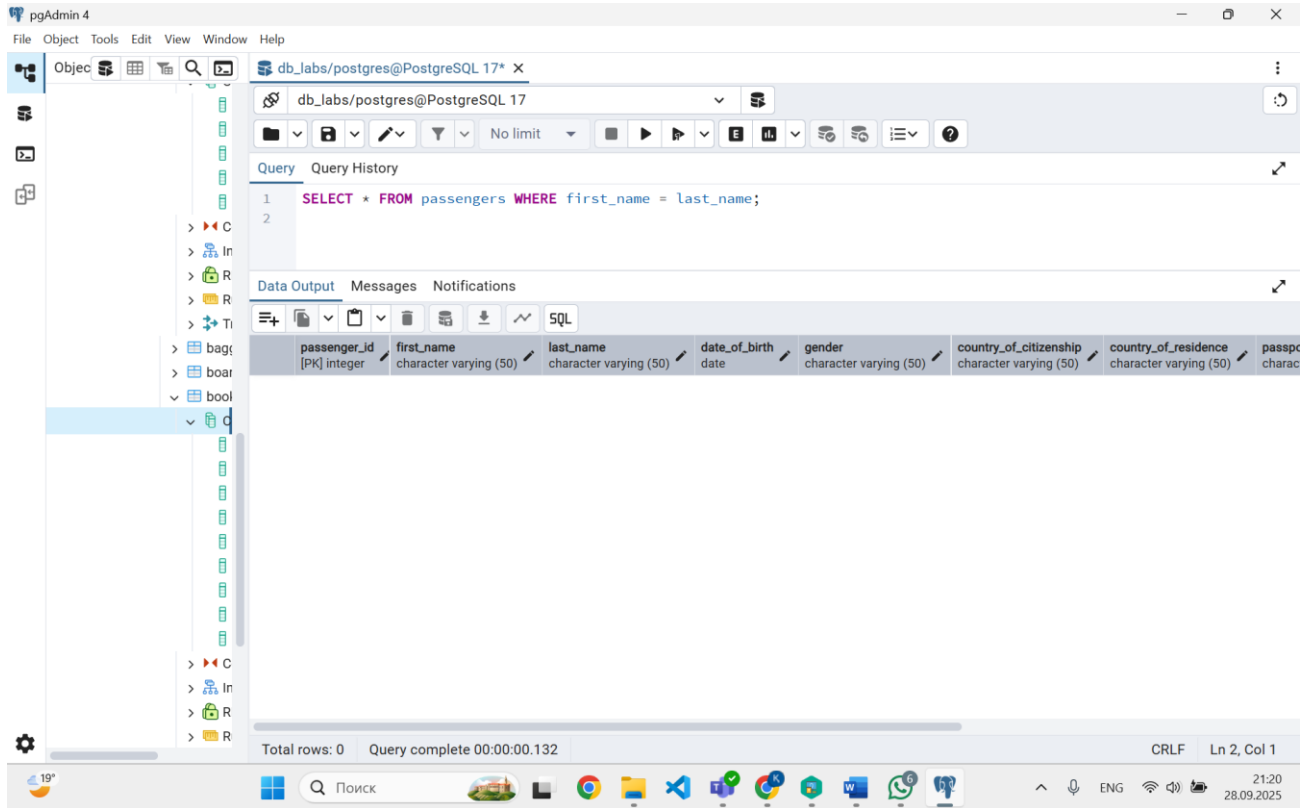


LAB3

1. Select all the data of passengers whose last name is same as first name.

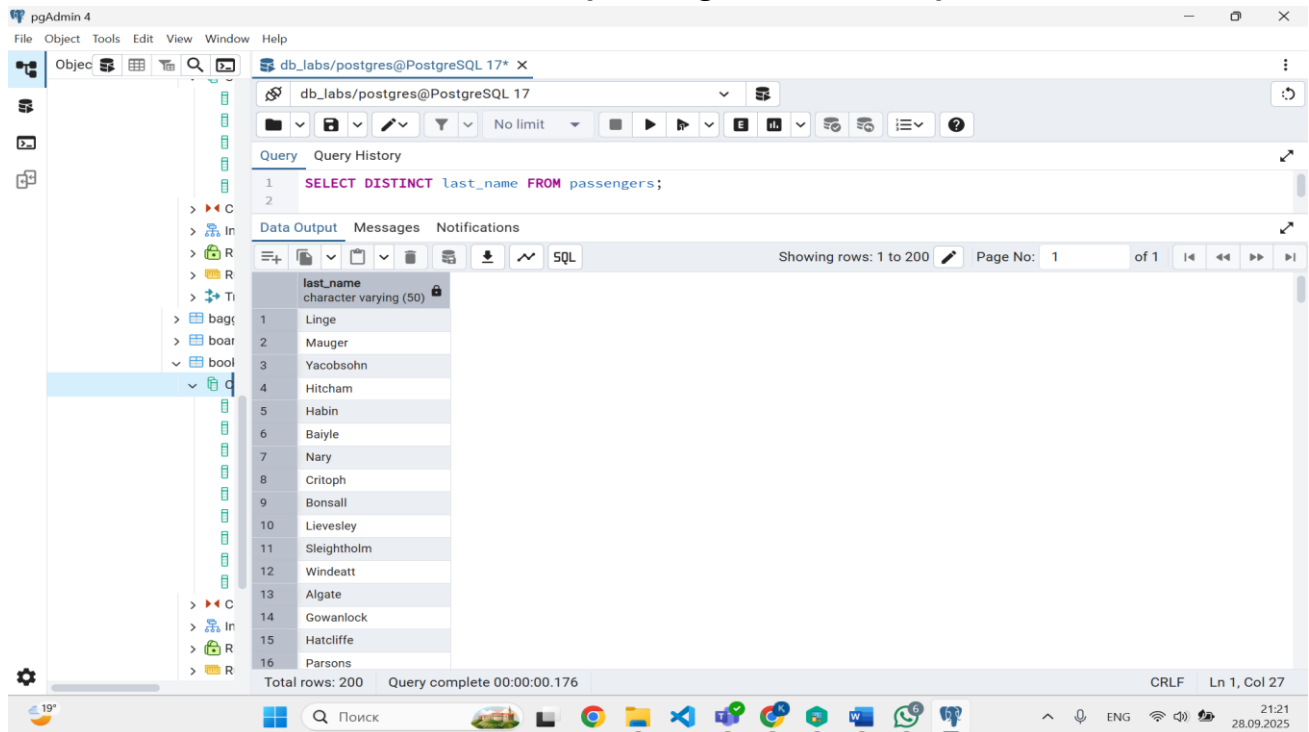


The screenshot shows the pgAdmin 4 interface. The left sidebar displays a tree view of the database structure. The main pane shows a SQL query editor with the following query:

```
1 SELECT * FROM passengers WHERE first_name = last_name;
```

The query is executed, and the results are displayed in the Data Output pane. The results show a table with the following columns: passenger_id, first_name, last_name, date_of_birth, gender, country_of_citizenship, country_of_residence, and passport_number. The status bar at the bottom indicates "Total rows: 0" and "Query complete 00:00:00.132".

2. Select the last name of all passengers without duplicates.



The screenshot shows the pgAdmin 4 interface. The left sidebar displays a tree view of the database structure. The main pane shows a SQL query editor with the following query:

```
1 SELECT DISTINCT last_name FROM passengers;
```

The query is executed, and the results are displayed in the Data Output pane. The results show a list of 16 distinct last names: Linge, Mauger, Yacobsohn, Hitcham, Habin, Baiyle, Nary, Critoph, Bonsall, Lievesley, Sleightholm, Windeatt, Algate, Gowanlock, Hatcliffe, and Parsons. The status bar at the bottom indicates "Total rows: 200" and "Query complete 00:00:00.176".

3. Find all male passengers born between 1990 and 2000.

pgAdmin 4

File Object Tools Edit View Window Help

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query Query History

```

1 SELECT * FROM passengers
2 WHERE gender = 'Male' AND date_of_birth BETWEEN '1990-01-01' AND '2000-12-31';
3

```

Data Output Messages Notifications

passenger_id	first_name	last_name	date_of_birth	gender	country_of_citizenship	country_of_residence	passport
[PK] integer	character varying (50)	character varying (50)	date	character varying (50)	character varying (50)	character varying (50)	character

Total rows: 0 Query complete 00:00:00.212 CRLF Ln 3, Col 1

21:22 28.09.2025

4. Find price of tickets sold for each month in sorted way.

pgAdmin 4

File Object Tools Edit View Window Help

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query Query History

```

1 SELECT DATE_TRUNC('month', created_at) AS month, SUM(ticket_price) AS total_sales FROM booking
2 GROUP BY month
3 ORDER BY month;
4

```

Data Output Messages Notifications

month	total_sales
2024-10-01 00:00:00	229.99
2024-11-01 00:00:00	178.22
2024-12-01 00:00:00	120.73
2025-01-01 00:00:00	540.46
2025-02-01 00:00:00	241.48
2025-03-01 00:00:00	149.48
2025-04-01 00:00:00	149.48
2025-05-01 00:00:00	338.08
2025-06-01 00:00:00	172.49
2025-08-01 00:00:00	413.99
2025-09-01 00:00:00	551.97

Showing rows: 1 to 11 Page No: 1 of 1

Total rows: 11 Query complete 00:00:00.165 CRLF Ln 4, Col 1

21:23 28.09.2025

5. Create a query that shows all flights flying to 'China'.

pgAdmin 4

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query

```
1 SELECT f.* FROM flights f JOIN airport a ON f.arriving_airport_id = a.airport_id
2 WHERE a.country = 'China';
3
```

Data Output

Showing rows: 1 to 36 Page No: 1 of 1

	flight_id [PK] 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)
1	12	2024-12-03 13:43:45	2025-08-12 04:58:45	12	12	A1	E1
2	19	2025-09-17 20:07:43	2025-09-16 00:17:46	19	19	D6	E1
3	23	2025-07-11 17:32:25	2025-07-30 20:15:49	23	23	A5	H4
4	25	2025-06-05 05:50:08	2025-03-04 00:22:51	25	25	D2	H4
5	26	2025-06-23 17:35:53	2025-02-03 11:38:53	26	26	A5	F7
6	27	2025-02-14 22:17:06	2025-05-06 19:34:57	27	27	C4	G1
7	35	2025-01-20 10:32:08	2025-05-09 02:03:53	35	35	B7	H2
8	39	2025-06-14 17:35:34	2025-07-30 08:28:57	39	39	A2	F7
9	63	2025-05-05 09:55:42	2025-01-22 10:32:49	63	63	A2	H4
10	69	2025-04-09 09:33:28	2025-07-22 18:18:39	69	69	C4	E3
11	75	2025-01-08 23:53:12	2025-03-20 02:39:56	75	75	B3	G1
12	82	2024-10-12 02:59:04	2025-04-11 15:21:40	82	82	C10	E1
13	83	2024-11-29 08:22:26	2025-05-08 05:21:47	83	83	D6	G8
14	86	2025-02-14 08:32:47	2025-08-17 09:52:20	86	86	C1	G1

Total rows: 36 Query complete 00:00:00.307 CRLF Ln 3, Col 1

6. Show airlines from any of: ('France','Portugal','Poland') created between '2023-11-01' and '2024-03-31'.

pgAdmin 4

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query

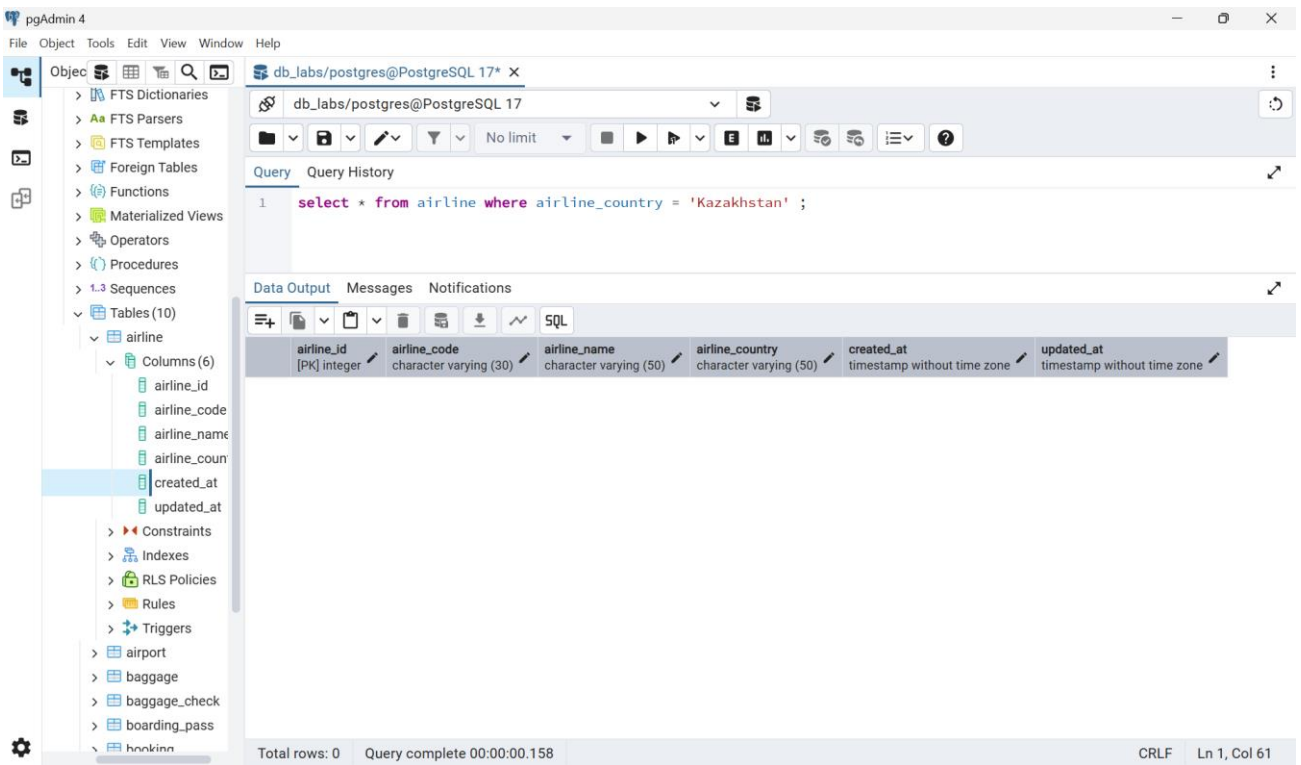
```
1 select * from airline where airline_country in ('France', 'Portugal', 'Poland')
2 and created_at between '2023-11-01' and '2024-03-31' ;
```

Data Output

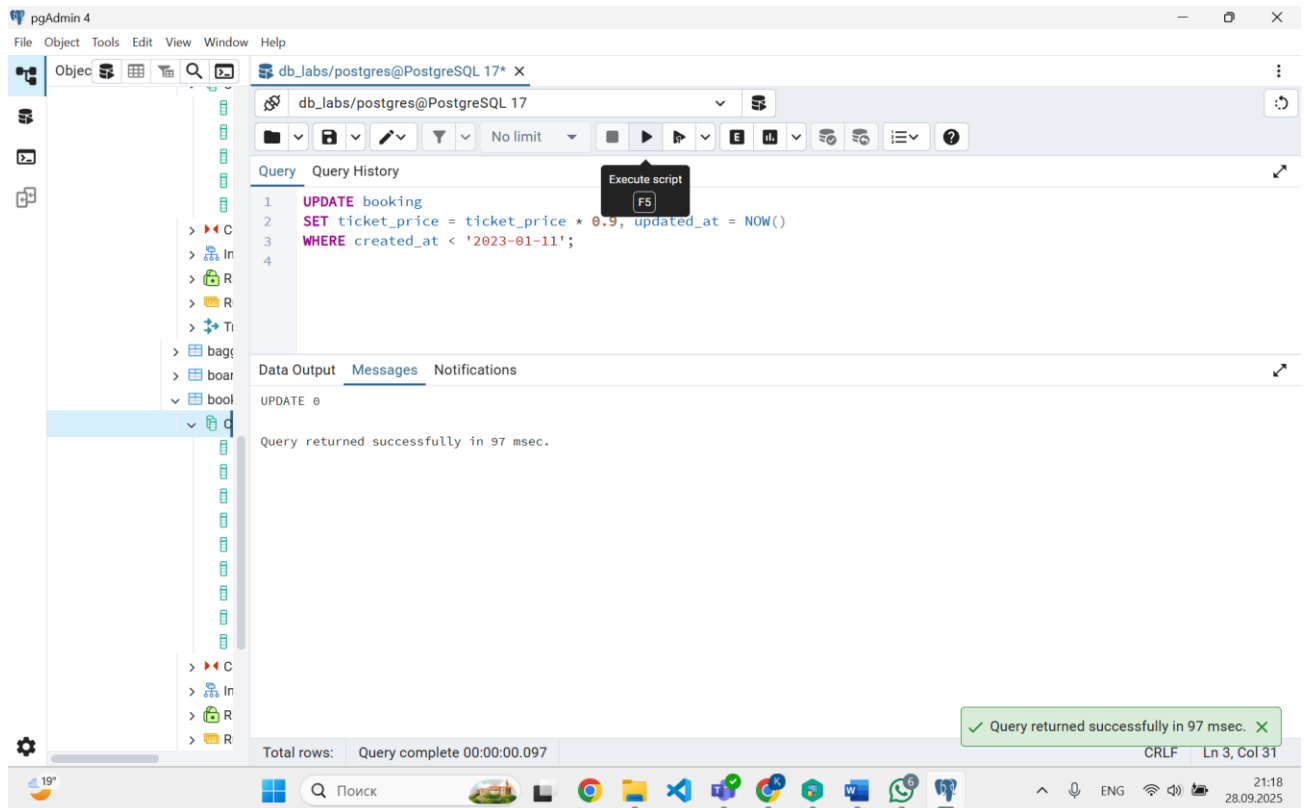
airline_id [PK] integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
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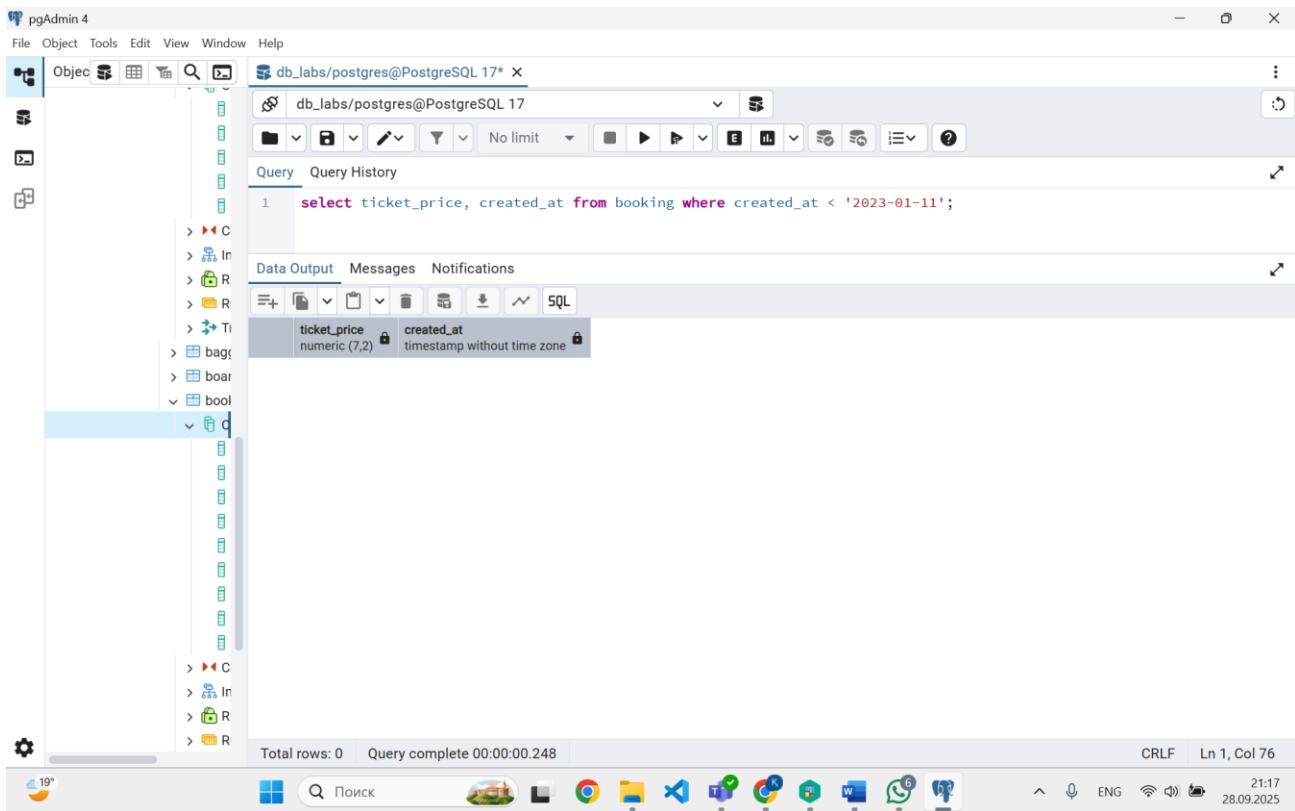
Total rows: 0 Query complete 00:00:00.171 CRLF Ln 2, Col 55

7. Find all airline names based in Kazakhstan.

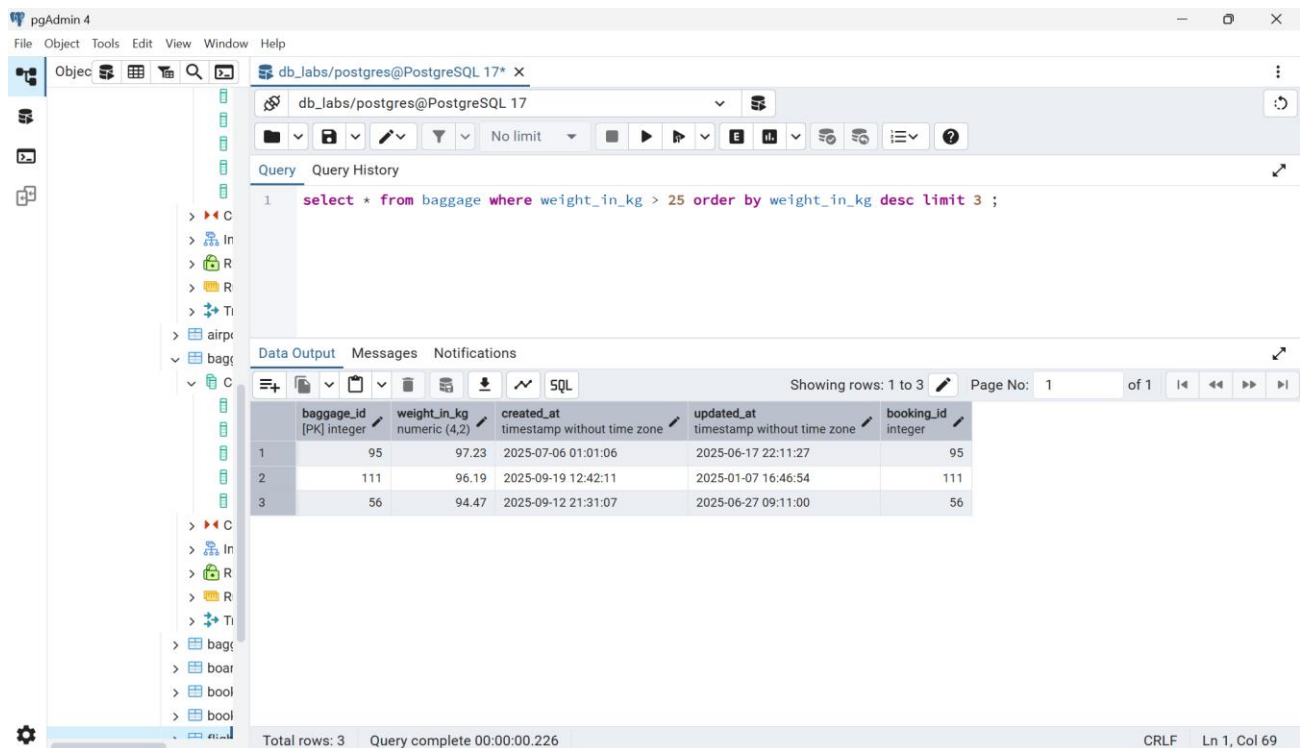


8. Reduce the cost of booking price by 10% created before '11-01-2023'.





9. Find top3 overweighted baggage with more than 25kg.



10. Find the youngest passengers' full name.

pgAdmin 4

File Object Tools Edit View Window Help

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query Query History

```
1 select first_name , last_name from passengers order by date_of_birth desc limit 1 ;
```

Data Output Messages Notifications

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

	first_name character varying (50)	last_name character varying (50)
1	Rodney	MacPeake

Total rows: 1 Query complete 00:00:00.174 CRLF Ln 1, Col 84

20:56 28.09.2025

11. Find the cheapest booking price on each booking platform.

pgAdmin 4

File Object Tools Edit View Window Help

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query Query History

```
1 select booking_platform,min(ticket_price) as cheapest from booking group by booking_platform ;
```

Data Output Messages Notifications

Showing rows: 1 to 6 Page No: 1 of 1

	booking_platform character varying (50)	cheapest numeric
1	Website	51.74
2	Third-Party	51.74
3	Call Center	57.49
4	Kiosk	413.99
5	Agent	51.74
6	Mobile App	57.49

Total rows: 6 Query complete 00:00:00.255 CRLF Ln 1, Col 95

20:59 28.09.2025

12. Return airlines whose airline_code contains a digit.

pgAdmin 4

File Object Tools Edit View Window Help

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query

```
1 select * from airline where airline_code ~ '[0-9]' ;
```

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	201	KZ201	KazAir	Turkey	2025-09-23 23:46:32.614284	2025-09-23 23:47:31.56801
2	202	FR202	AirEasy	France	2025-09-23 23:48:11.890115	2025-09-23 23:48:11.890115
3	203	BR203	FlyHigh	Brazil	2025-09-23 23:48:11.890115	2025-09-23 23:48:11.890115
4	204	PL204	FlyFly	Poland	2025-09-23 23:48:11.890115	2025-09-23 23:48:11.890115

Total rows: 4 Query complete 00:00:00.209 CRLF Ln 1, Col 53

21:04 28.09.2025

13. List the top5 most recently created airlines.

pgAdmin 4

File Object Tools Edit View Window Help

db_labs/postgres@PostgreSQL 17*

db_labs/postgres@PostgreSQL 17

Query

```
1 select * from airline order by created_at desc limit 5 ;
```

Data Output Messages Notifications

Showing rows: 1 to 5 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	203	BR203	FlyHigh	Brazil	2025-09-23 23:48:11.890115	2025-09-23 23:48:11.890115
2	204	PL204	FlyFly	Poland	2025-09-23 23:48:11.890115	2025-09-23 23:48:11.890115
3	202	FR202	AirEasy	France	2025-09-23 23:48:11.890115	2025-09-23 23:48:11.890115
4	201	KZ201	KazAir	Turkey	2025-09-23 23:46:32.614284	2025-09-23 23:47:31.56801
5	51	QR	Qatar Airways	South Africa	2025-09-21 02:00:39	2024-10-07 10:24:52

Total rows: 5 Query complete 00:00:00.256 CRLF Ln 1, Col 57

21:07 28.09.2025

14. Return all rows where booking_id is between 200 and 300 inclusive and check_result <> 'Checked'.

The screenshot shows the pgAdmin 4 interface. The query editor contains the following SQL query:

```
1 select * from baggage_check where booking_id between 200 and 300
2 and check_result <> 'Checked' ;
```

The Data Output tab shows the results of the query. The table has 7 columns: baggage_check_id, check_result, created_at, updated_at, booking_id, and passenger_id. The results are as follows:

baggage_check_id	check_result	created_at	updated_at	booking_id	passenger_id	
1	200	Flagged	2024-12-27 19:23:52	2025-01-16 11:59:00	200	200

The status bar at the bottom indicates "Total rows: 1" and "Query complete 00:00:00.194".

15. Baggage checks where update_at is in the same month as created_at but occurs earlier than created_at.

The screenshot shows the pgAdmin 4 interface. The query editor contains the following SQL query:

```
1 select * from baggage_check where date_trunc('month', created_at) = date_trunc('month', updated_at)
2 and updated_at < created_at ;
```

The Data Output tab shows the results of the query. The table has 6 columns: baggage_check_id, check_result, created_at, updated_at, booking_id, and passenger_id. The results are as follows:

baggage_check_id	check_result	created_at	updated_at	booking_id	passenger_id
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The status bar at the bottom indicates "Total rows: 0" and "Query complete 00:00:00.216".