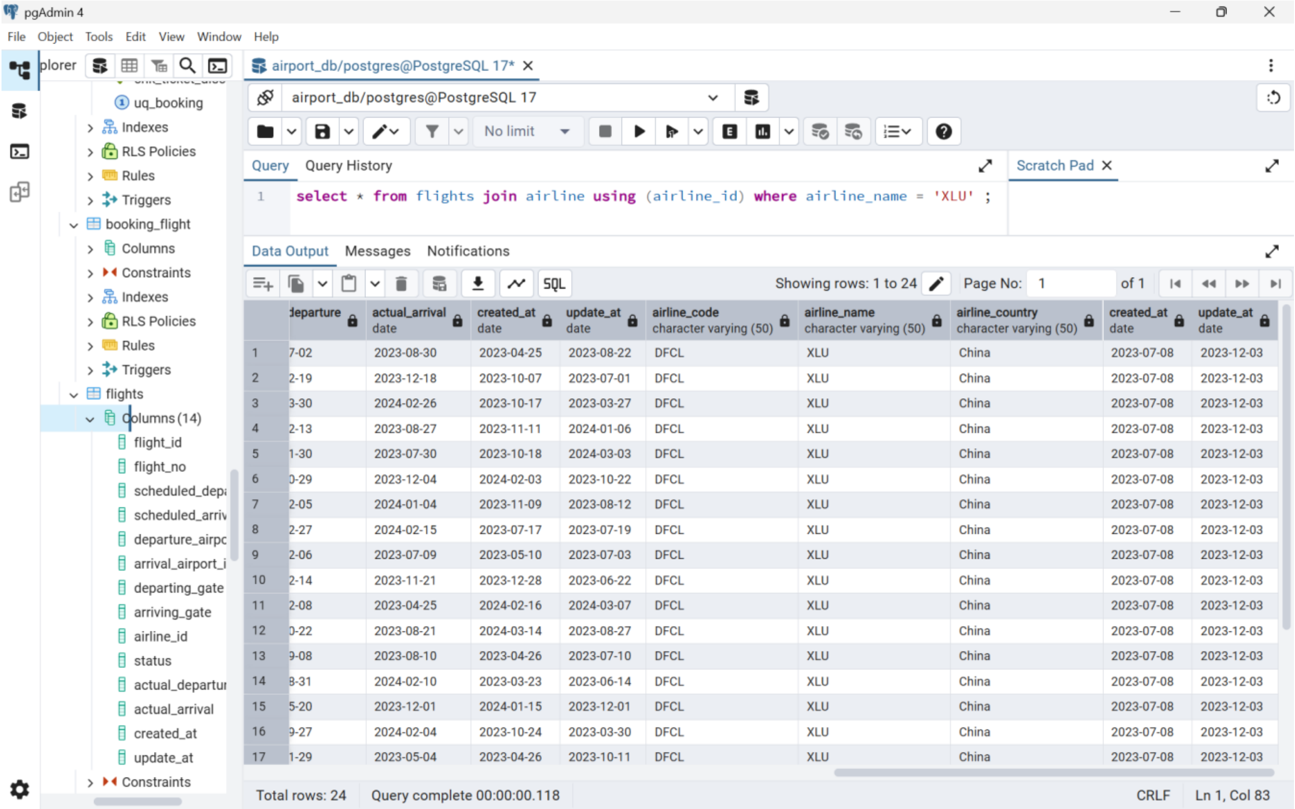
Laboratory work 6

1. Write a query that displays all flights of a specific airline.



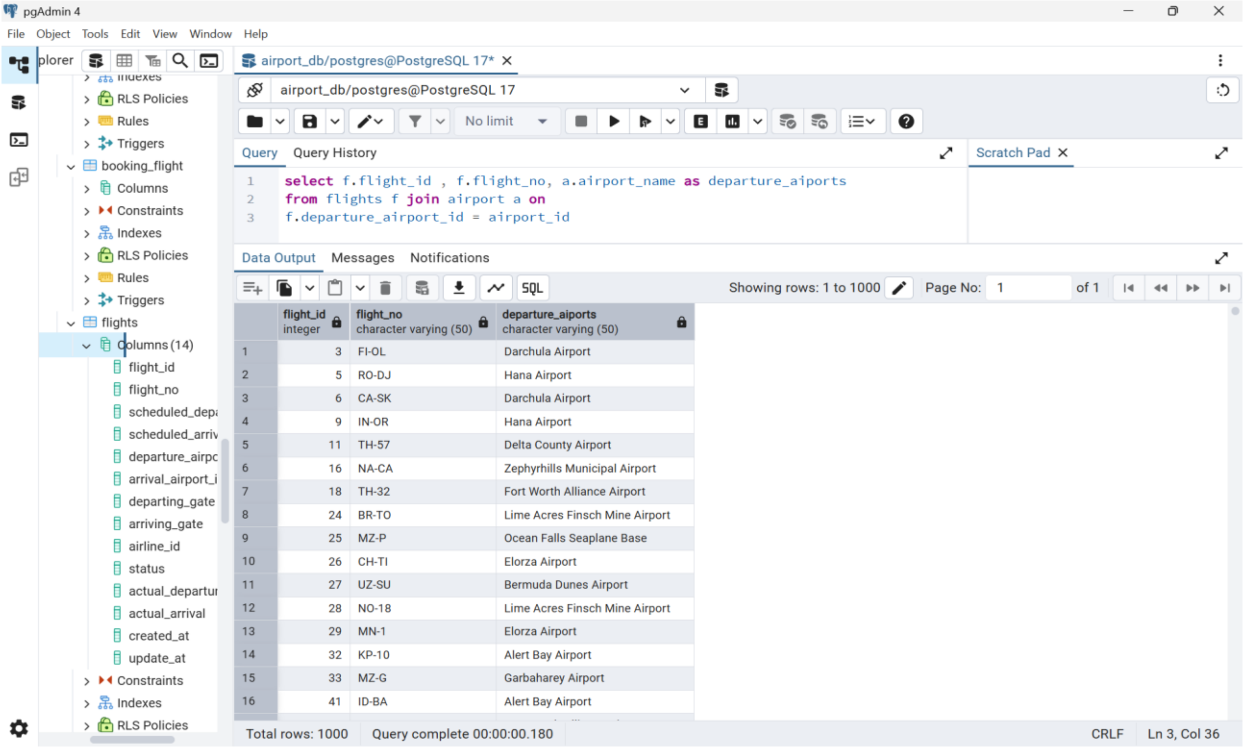
```sql
select * from flights join airline using (airline_id) where airline_name = 'XLU' ;
```

Showing rows: 1 to 24

	departure	actual_arrival date	created_at date	update_at date	airline_code character varying (50)	airline_name character varying (50)	airline_country character varying (50)	created_at date	update_at date
1	7-02	2023-08-30	2023-04-25	2023-08-22	DFCL	XLU	China	2023-07-08	2023-12-03
2	2-19	2023-12-18	2023-10-07	2023-07-01	DFCL	XLU	China	2023-07-08	2023-12-03
3	3-30	2024-02-26	2023-10-17	2023-03-27	DFCL	XLU	China	2023-07-08	2023-12-03
4	2-13	2023-08-27	2023-11-11	2024-01-06	DFCL	XLU	China	2023-07-08	2023-12-03
5	1-30	2023-07-30	2023-10-18	2024-03-03	DFCL	XLU	China	2023-07-08	2023-12-03
6	0-29	2023-12-04	2024-02-03	2023-10-22	DFCL	XLU	China	2023-07-08	2023-12-03
7	2-05	2024-01-04	2023-11-09	2023-08-12	DFCL	XLU	China	2023-07-08	2023-12-03
8	2-27	2024-02-15	2023-07-17	2023-07-19	DFCL	XLU	China	2023-07-08	2023-12-03
9	2-06	2023-07-09	2023-05-10	2023-07-03	DFCL	XLU	China	2023-07-08	2023-12-03
10	2-14	2023-11-21	2023-12-28	2023-06-22	DFCL	XLU	China	2023-07-08	2023-12-03
11	2-08	2023-04-25	2024-02-16	2024-03-07	DFCL	XLU	China	2023-07-08	2023-12-03
12	0-22	2023-08-21	2024-03-14	2023-08-27	DFCL	XLU	China	2023-07-08	2023-12-03
13	9-08	2023-08-10	2023-04-26	2023-07-10	DFCL	XLU	China	2023-07-08	2023-12-03
14	8-31	2024-02-10	2023-03-23	2023-06-14	DFCL	XLU	China	2023-07-08	2023-12-03
15	5-20	2023-12-01	2024-01-15	2023-12-01	DFCL	XLU	China	2023-07-08	2023-12-03
16	9-27	2024-02-04	2023-10-24	2023-03-30	DFCL	XLU	China	2023-07-08	2023-12-03
17	1-29	2023-05-04	2023-04-26	2023-10-11	DFCL	XLU	China	2023-07-08	2023-12-03

Total rows: 24 Query complete 00:00:00.118 CRLF Ln 1, Col 83

2. Compose a query to obtain a list of all flights with the names of departure airports.



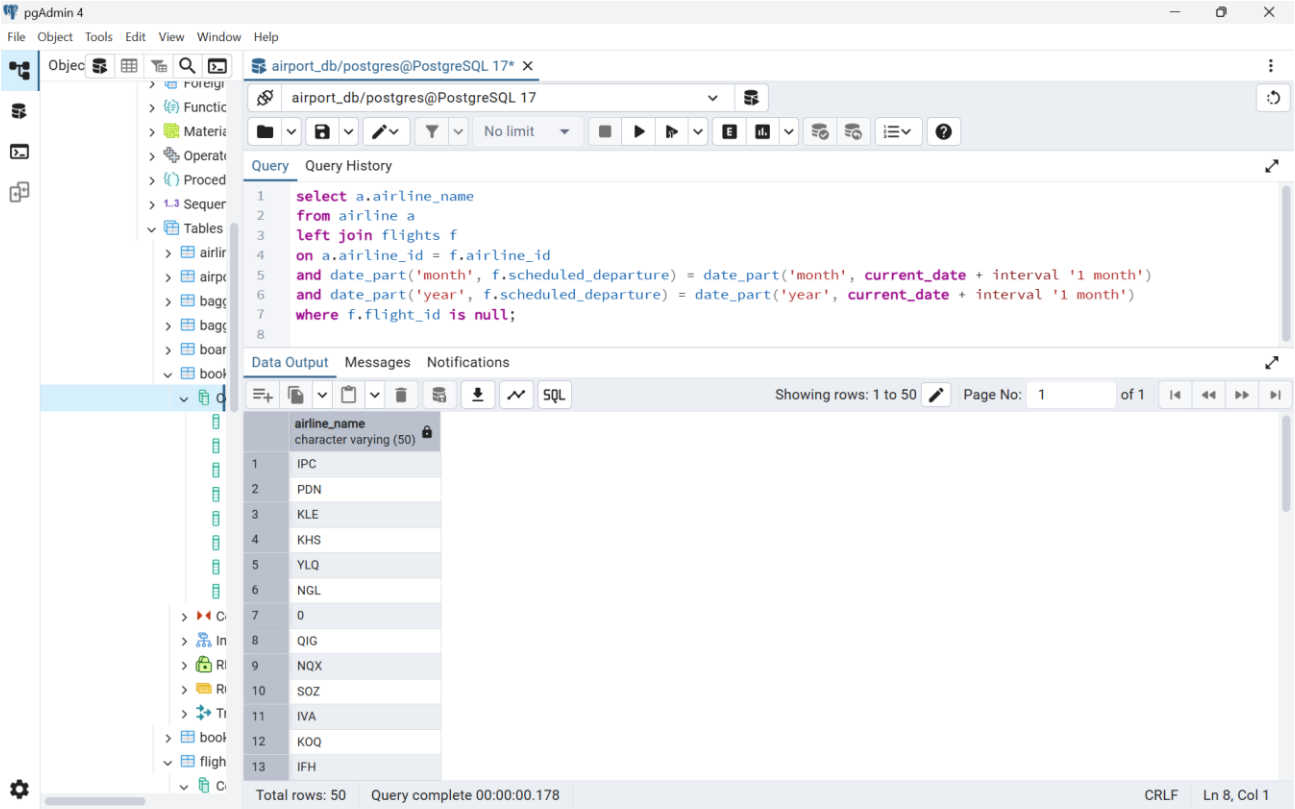
```sql
select f.flight_id , f.flight_no, a.airport_name as departure_aiports
from flights f join airport a on
f.departure_airport_id = airport_id
```

Showing rows: 1 to 1000

	flight_id integer	flight_no character varying (50)	departure_aiports character varying (50)
1	3	FI-OL	Darchula Airport
2	5	RO-DJ	Hana Airport
3	6	CA-SK	Darchula Airport
4	9	IN-OR	Hana Airport
5	11	TH-57	Delta County Airport
6	16	NA-CA	Zephyrhills Municipal Airport
7	18	TH-32	Fort Worth Alliance Airport
8	24	BR-TO	Lime Acres Finsch Mine Airport
9	25	MZ-P	Ocean Falls Seaplane Base
10	26	CH-TI	Elorza Airport
11	27	UZ-SU	Bermuda Dunes Airport
12	28	NO-18	Lime Acres Finsch Mine Airport
13	29	MN-1	Elorza Airport
14	32	KP-10	Alert Bay Airport
15	33	MZ-G	Garbaharey Airport
16	41	ID-BA	Alert Bay Airport

Total rows: 1000 Query complete 00:00:00.180 CRLF Ln 3, Col 36

3. Create a query that finds all airlines that have no flights scheduled for the next month.



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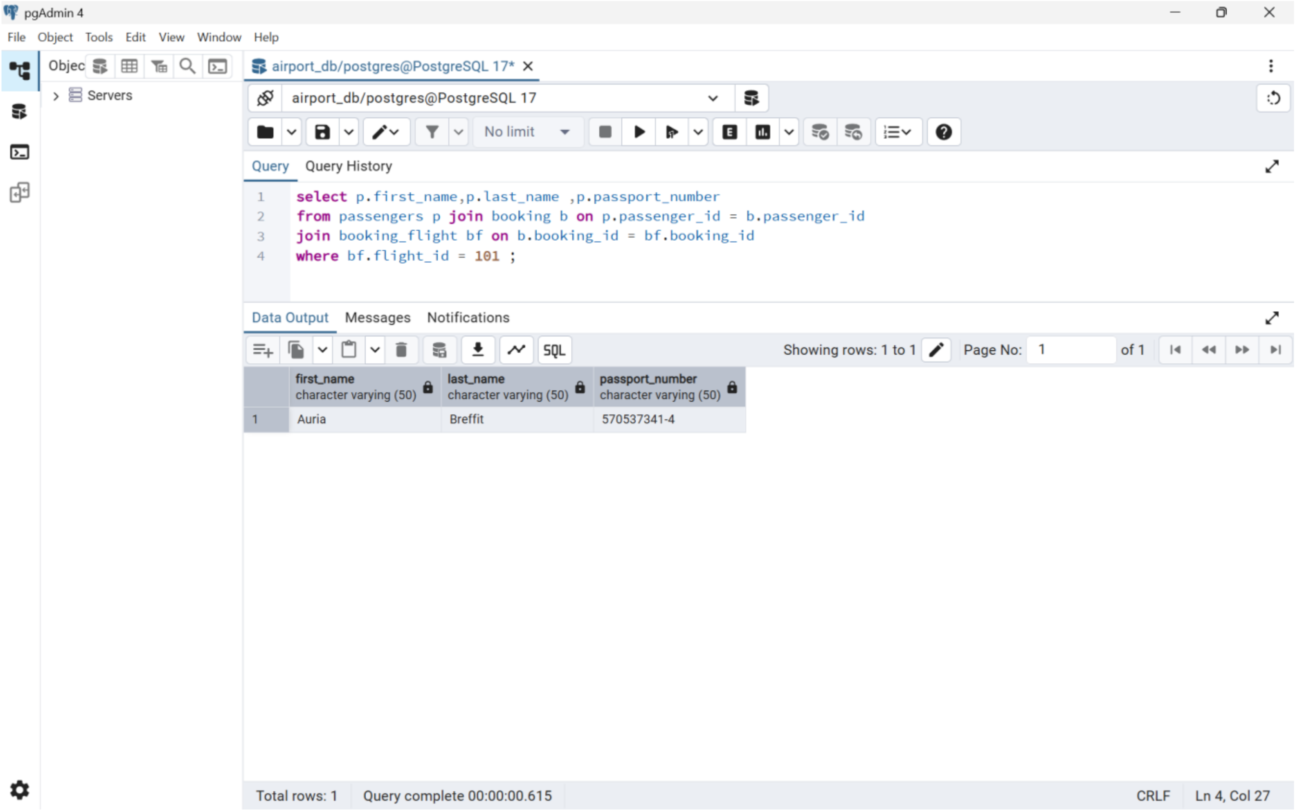
Showing rows: 1 to 50 Page No: 1 of 1

```sql
select a.airline_name
from airline a
left join flights f
on a.airline_id = f.airline_id
and date_part('month', f.scheduled_departure) = date_part('month', current_date + interval '1 month')
and date_part('year', f.scheduled_departure) = date_part('year', current_date + interval '1 month')
where f.flight_id is null;
```

	airline_name character varying (50)
1	IPC
2	PDN
3	KLE
4	KHS
5	YLQ
6	NGL
7	0
8	QIG
9	NQX
10	SOZ
11	IVA
12	KOQ
13	IFH

Total rows: 50 Query complete 00:00:00.178 CRLF Ln 8, Col 1

4. Create a query to display a list of passengers on a specific flight.



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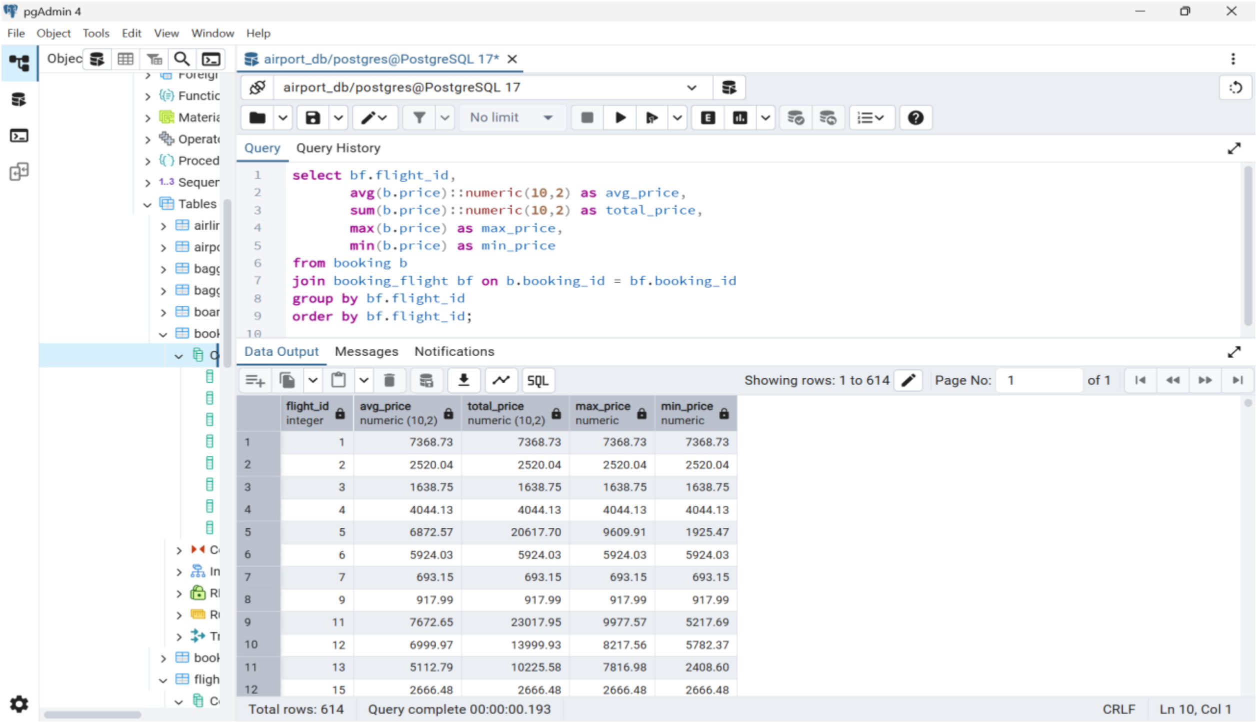
```sql
select p.first_name,p.last_name ,p.passport_number
from passengers p join booking b on p.passenger_id = b.passenger_id
join booking_flight bf on b.booking_id = bf.booking_id
where bf.flight_id = 101 ;
```

	first_name character varying (50)	last_name character varying (50)	passport_number character varying (50)
1	Auria	Breffit	570537341-4

Total rows: 1 Query complete 00:00:00.615 CRLF Ln 4, Col 27

5. Write a query that calculates the average, total, maximum and minimum price of tickets for each flight.



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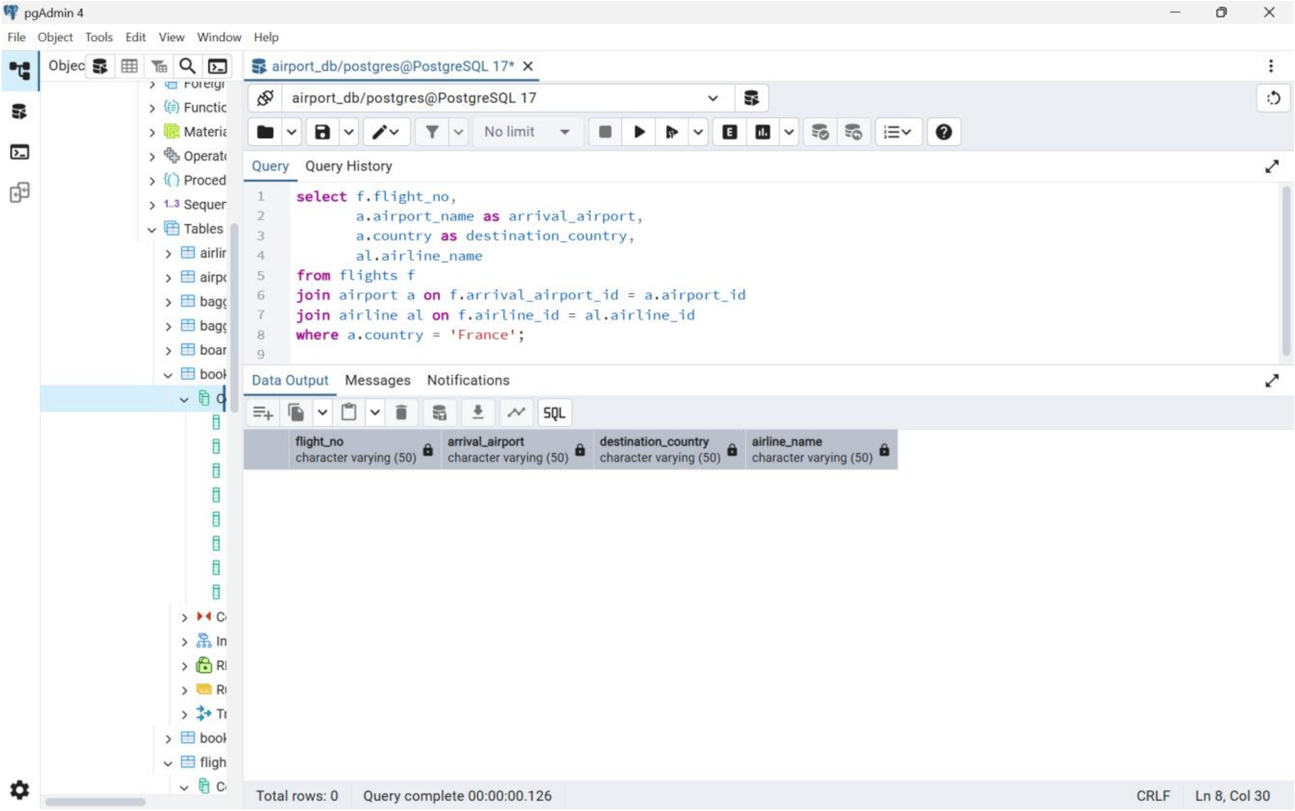
```sql
select bf.flight_id,
       avg(b.price)::numeric(10,2) as avg_price,
       sum(b.price)::numeric(10,2) as total_price,
       max(b.price) as max_price,
       min(b.price) as min_price
from booking b
join booking_flight bf on b.booking_id = bf.booking_id
group by bf.flight_id
order by bf.flight_id;
```

	flight_id integer	avg_price numeric (10,2)	total_price numeric (10,2)	max_price numeric	min_price numeric
1	1	7368.73	7368.73	7368.73	7368.73
2	2	2520.04	2520.04	2520.04	2520.04
3	3	1638.75	1638.75	1638.75	1638.75
4	4	4044.13	4044.13	4044.13	4044.13
5	5	6872.57	20617.70	9609.91	1925.47
6	6	5924.03	5924.03	5924.03	5924.03
7	7	693.15	693.15	693.15	693.15
8	9	917.99	917.99	917.99	917.99
9	11	7672.65	23017.95	9977.57	5217.69
10	12	6999.97	13999.93	8217.56	5782.37
11	13	5112.79	10225.58	7816.98	2408.60
12	15	2666.48	2666.48	2666.48	2666.48

Total rows: 614 Query complete 00:00:00.193 CRLF Ln 10, Col 1

6. Create a query that shows all flights flying to a specific country by combining flights, airports and airline, and using the condition on the country name.

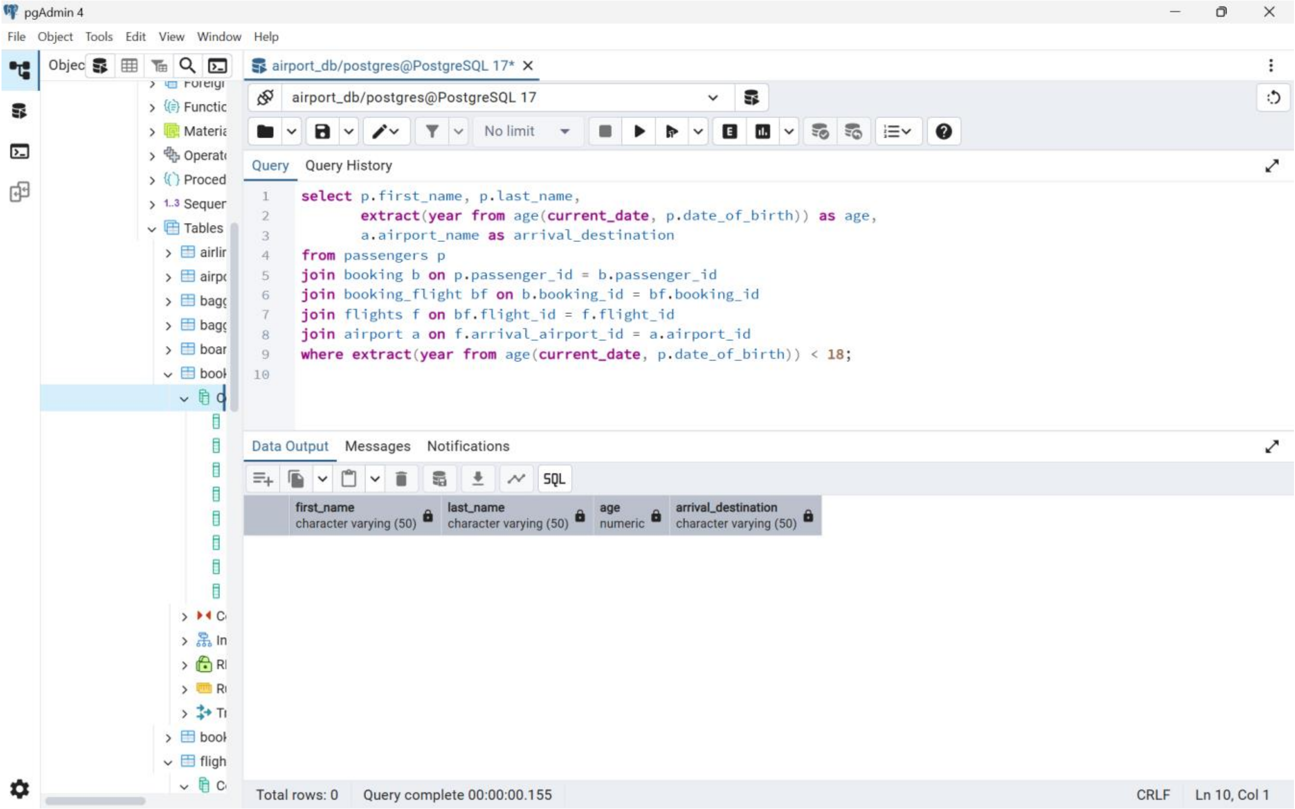


```sql
select f.flight_no,
       a.airport_name as arrival_airport,
       a.country as destination_country,
       al.airline_name
from flights f
join airport a on f.arrival_airport_id = a.airport_id
join airline al on f.airline_id = al.airline_id
where a.country = 'France';
```

flight_no character varying (50)	arrival_airport character varying (50)	destination_country character varying (50)	airline_name character varying (50)

Total rows: 0 Query complete 00:00:00.126 CRLF Ln 8, Col 30

7. Display a list of minor passengers and their arrival destination.

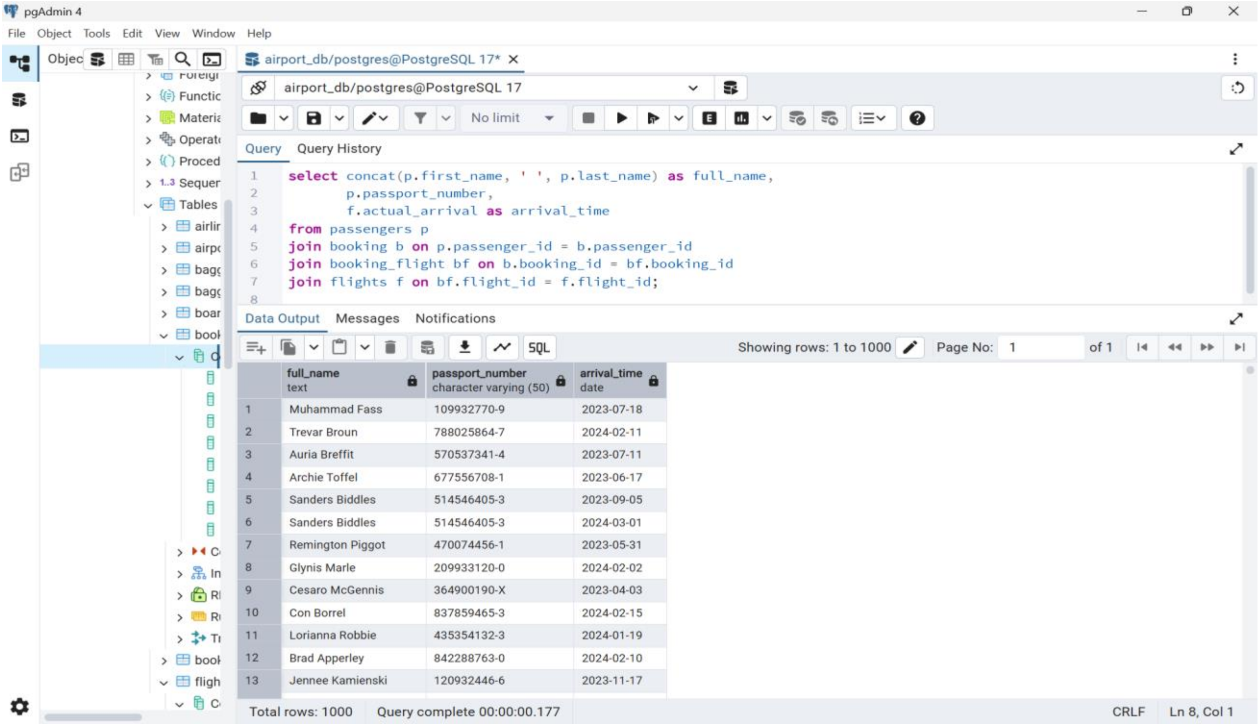


```sql
select p.first_name, p.last_name,
       extract(year from age(current_date, p.date_of_birth)) as age,
       a.airport_name as arrival_destination
from passengers p
join booking b on p.passenger_id = b.passenger_id
join booking_flight bf on b.booking_id = bf.booking_id
join flights f on bf.flight_id = f.flight_id
join airport a on f.arrival_airport_id = a.airport_id
where extract(year from age(current_date, p.date_of_birth)) < 18;
```

first_name character varying (50)	last_name character varying (50)	age numeric	arrival_destination character varying (50)

Total rows: 0 Query complete 00:00:00.155 CRLF Ln 10, Col 1

8. Display the passenger's full name, passport number, and the passenger's current time of arrival at the destination.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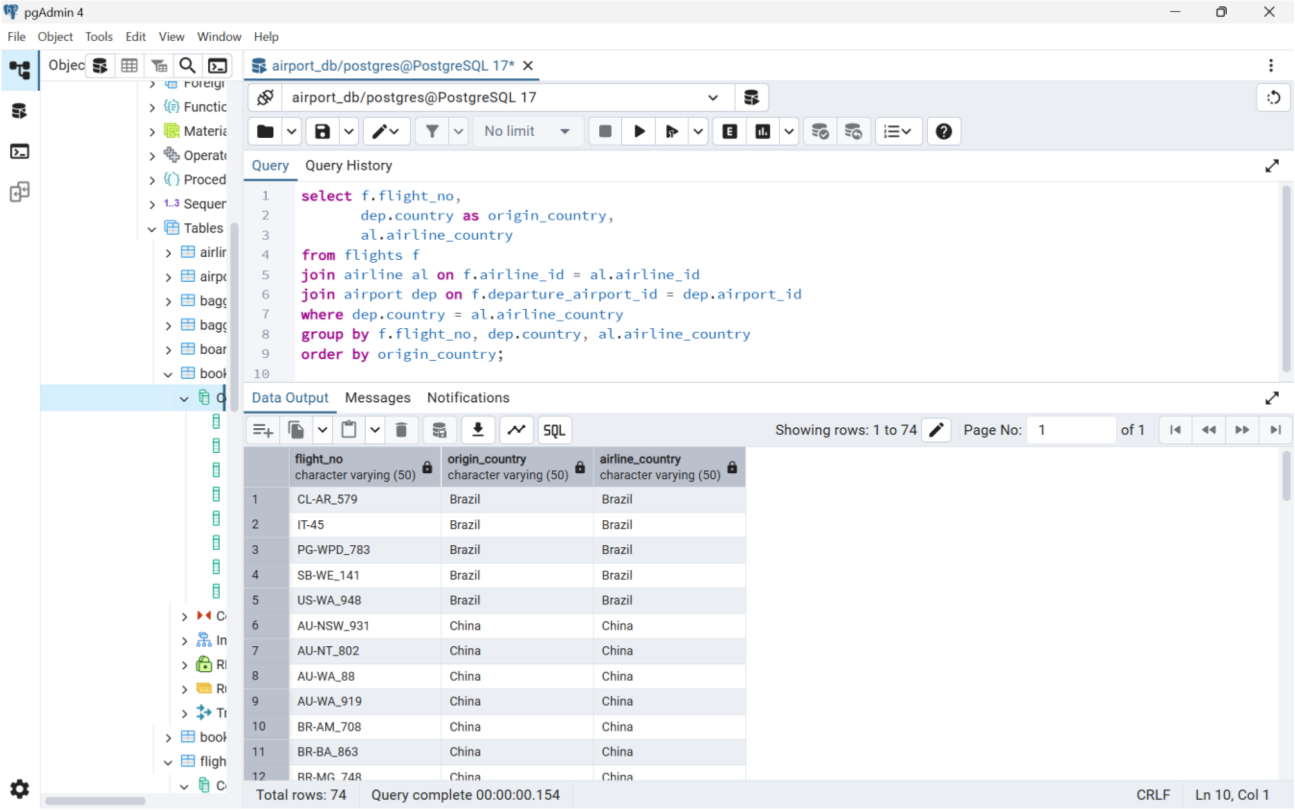
Showing rows: 1 to 1000 Page No: 1 of 1
CRLF Ln 8, Col 1

```sql
select concat(p.first_name, ' ', p.last_name) as full_name,
       p.passport_number,
       f.actual_arrival as arrival_time
from passengers p
join booking b on p.passenger_id = b.passenger_id
join booking_flight bf on b.booking_id = bf.booking_id
join flights f on bf.flight_id = f.flight_id;
```

	full_name text	passport_number character varying (50)	arrival_time date
1	Muhammad Fass	109932770-9	2023-07-18
2	Trevar Broun	788025864-7	2024-02-11
3	Auria Breffit	570537341-4	2023-07-11
4	Archie Toffel	677556708-1	2023-06-17
5	Sanders Biddles	514546405-3	2023-09-05
6	Sanders Biddles	514546405-3	2024-03-01
7	Remington Piggot	470074456-1	2023-05-31
8	Glynis Marle	209933120-0	2024-02-02
9	Cesaro McGennis	364900190-X	2023-04-03
10	Con Borrel	837859465-3	2024-02-15
11	Lorianna Robbie	435354132-3	2024-01-19
12	Brad Apperley	842288763-0	2024-02-10
13	Jennee Kamienski	120932446-6	2023-11-17

Total rows: 1000 Query complete 00:00:00.177

9. Print a list of flights where the airline's home country and origin country are the same. Group them by the airport country.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Query Query History
Data Output Messages Notifications
Showing rows: 1 to 74 Page No: 1 of 1
CRLF Ln 10, Col 1

```sql
select f.flight_no,
       dep.country as origin_country,
       al.airline_country
from flights f
join airline al on f.airline_id = al.airline_id
join airport dep on f.departure_airport_id = dep.airport_id
where dep.country = al.airline_country
group by f.flight_no, dep.country, al.airline_country
order by origin_country;
```

	flight_no character varying (50)	origin_country character varying (50)	airline_country character varying (50)
1	CL-AR_579	Brazil	Brazil
2	IT-45	Brazil	Brazil
3	PG-WPD_783	Brazil	Brazil
4	SB-WE_141	Brazil	Brazil
5	US-WA_948	Brazil	Brazil
6	AU-NSW_931	China	China
7	AU-NT_802	China	China
8	AU-WA_88	China	China
9	AU-WA_919	China	China
10	BR-AM_708	China	China
11	BR-BA_863	China	China
12	BR-MG_748	China	China

Total rows: 74 Query complete 00:00:00.154