Laboratory work 6

Submission format: word or pdf document containing screenshots of your tasks with answers that covers full-page (Alt+PrtSc).

JOIN operations tasks

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

2. Compose a query to obtain a list of all flights with the names of departure airports.
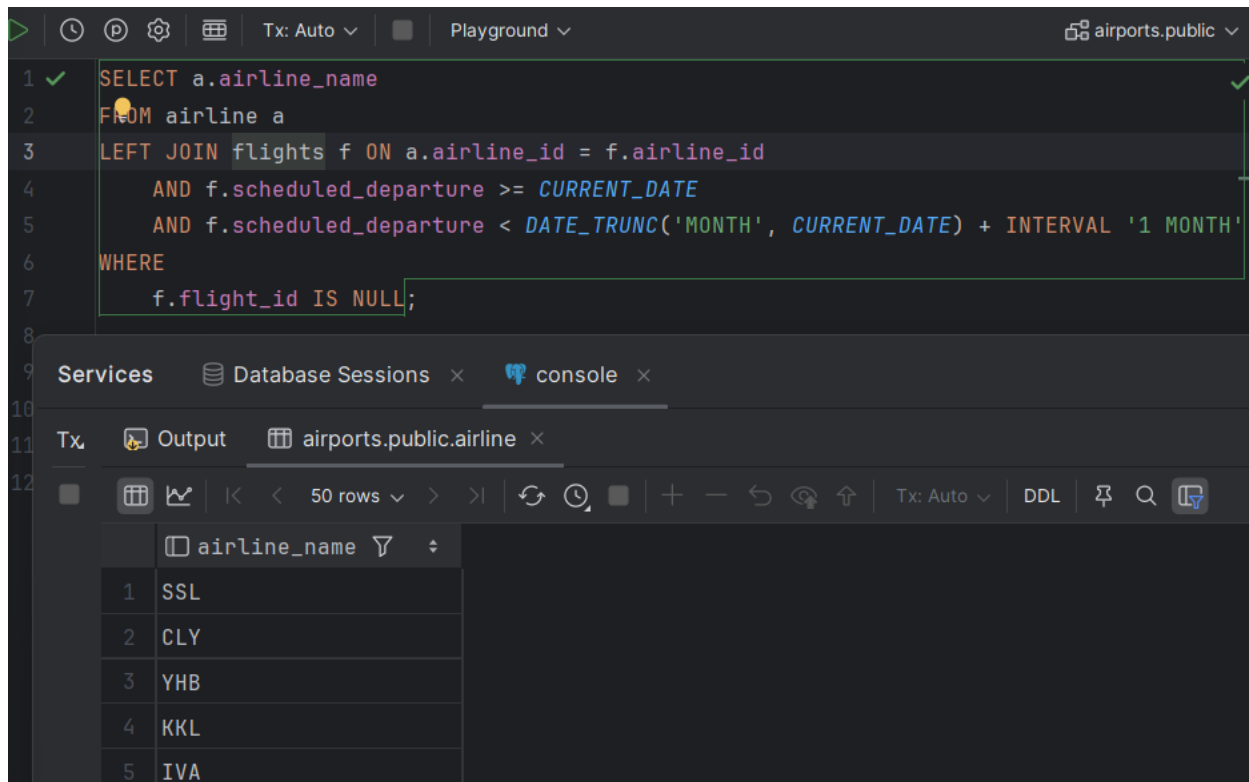
3. Create a query that finds all airlines that have no flights scheduled for the next month.
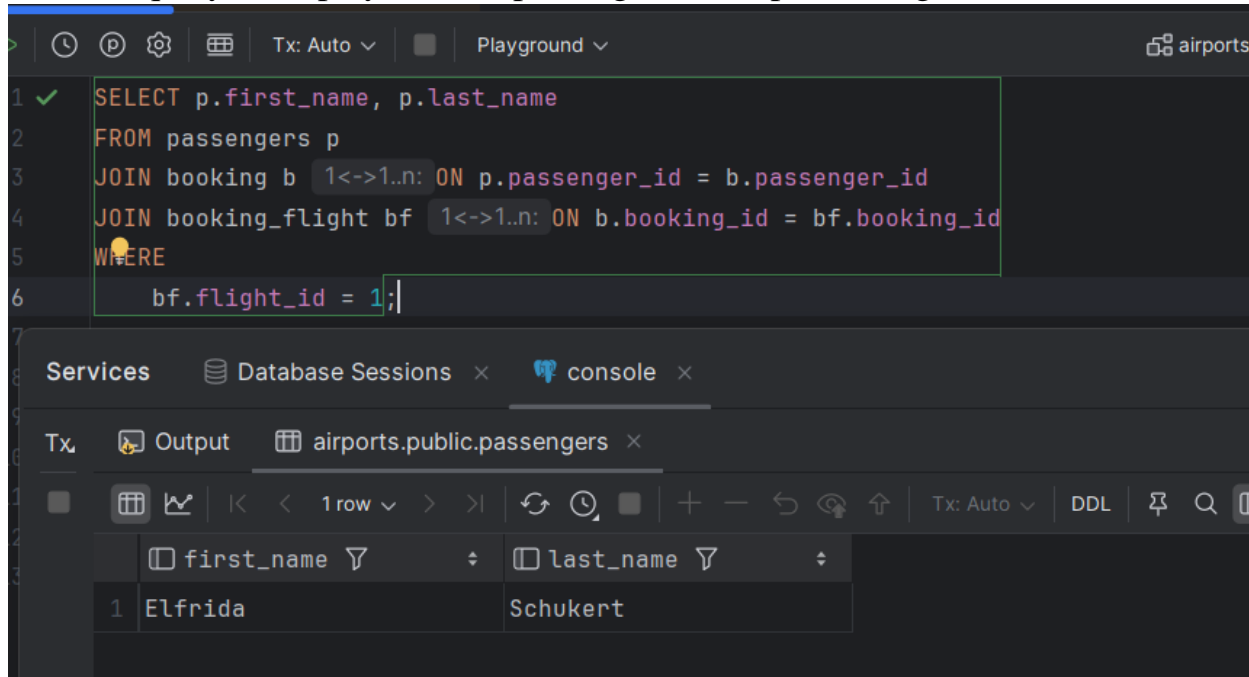
```sql
SELECT a.airline_name
FROM airline a
LEFT JOIN flights f ON a.airline_id = f.airline_id
    AND f.scheduled_departure >= CURRENT_DATE
    AND f.scheduled_departure < DATE_TRUNC('MONTH', CURRENT_DATE) + INTERVAL '1 MONTH'
WHERE
    f.flight_id IS NULL;
```

	airline_name
1	SSL
2	CLY
3	YHB
4	KKL
5	IVA

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

```sql
SELECT p.first_name, p.last_name
FROM passengers p
JOIN booking b   1<->1..n: ON p.passenger_id = b.passenger_id
JOIN booking_flight bf   1<->1..n: ON b.booking_id = bf.booking_id
WHERE
    bf.flight_id = 1;
```

	first_name	last_name
1	Elfrida	Schukert

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

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.

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

```sql
SELECT p.first_name,p.last_name,a2.airport_name AS arrival_airport_name
FROM passengers p
JOIN booking b  1<->1..n: ON p.passenger_id = b.passenger_id
JOIN booking_flight bf  1<->1..n: ON b.booking_id = bf.booking_id
JOIN flights f  1..n<->1: ON bf.flight_id = f.flight_id
JOIN airport a2  1..n<->1: ON f.arrival_airport_id = a2.airport_id
WHERE
    date_part('year', age(p.date_of_birth)) < 18;
```

Services Database Sessions ×   console ×

Tx. Output Result 28 ×

47 rows

first_name	last_name	arrival_airport_name
1 Vivyan	Mallabone	Alert Bay Airport
2 Lester	Blades	Armidale Airport
3 Lester	Blades	Figari Sud-Corse Airport
4 Cleve	Edgeler	Industrial Airpark
5 Bradley	Grolle	Armidale Airport
6 Zedekiah	Jull	Garbaharey Airport
7 Cleve	Edgeler	Fort Worth Alliance Airport

8. Display the passenger's full name, passport number, and the passenger's current time of arrival at the destination.

```sql
SELECT CONCAT(p.first_name, ' ', p.last_name) AS full_name,p.passport_number,f.act
FROM passengers p
JOIN booking b  1<->1..n: ON p.passenger_id = b.passenger_id
JOIN booking_flight bf  1<->1..n: ON b.booking_id = bf.booking_id
JOIN flights f  1..n<->1: ON bf.flight_id = f.flight_id;
```

vices Database Sessions ×   console ×

Output Result 29 ×

1-500 of 501+

full_name	passport_number	actual_arrival
1 Muhammad Fass	109932770-9	2023-07-18 00:00:00.000000
2 Trevar Broun	788025864-7	2024-02-11 00:00:00.000000
3 Auria Breffit	570537341-4	2023-07-11 00:00:00.000000
4 Archie Toffel	677556708-1	2023-06-17 00:00:00.000000
5 Sanders Biddles	514546405-3	2023-09-05 00:00:00.000000
6 Sanders Biddles	514546405-3	2024-03-01 00:00:00.000000
7 Remington Piggot	470074456-1	2023-05-31 00:00:00.000000

9. Print a list of flights where the airline's home country and origin country are the same. Group them by the airport country.

```
1    ✓    SELECT p.first_name,p.last_name,a2.airport_name AS arrival_airport_name
2         FROM passengers p
3         JOIN booking b    1<->1..n: ON p.passenger_id = b.passenger_id
4         JOIN booking_flight bf    1<->1..n: ON b.booking_id = bf.booking_id
5         JOIN flights f    1..n<->1: ON bf.flight_id = f.flight_id
6         JOIN airport a2    1..n<->1: ON f.arrival_airport_id = a2.airport_id
7         WHERE
8             EXTRACT(YEAR FROM AGE(CURRENT_DATE, p.date_of_birth)) < 18;
```
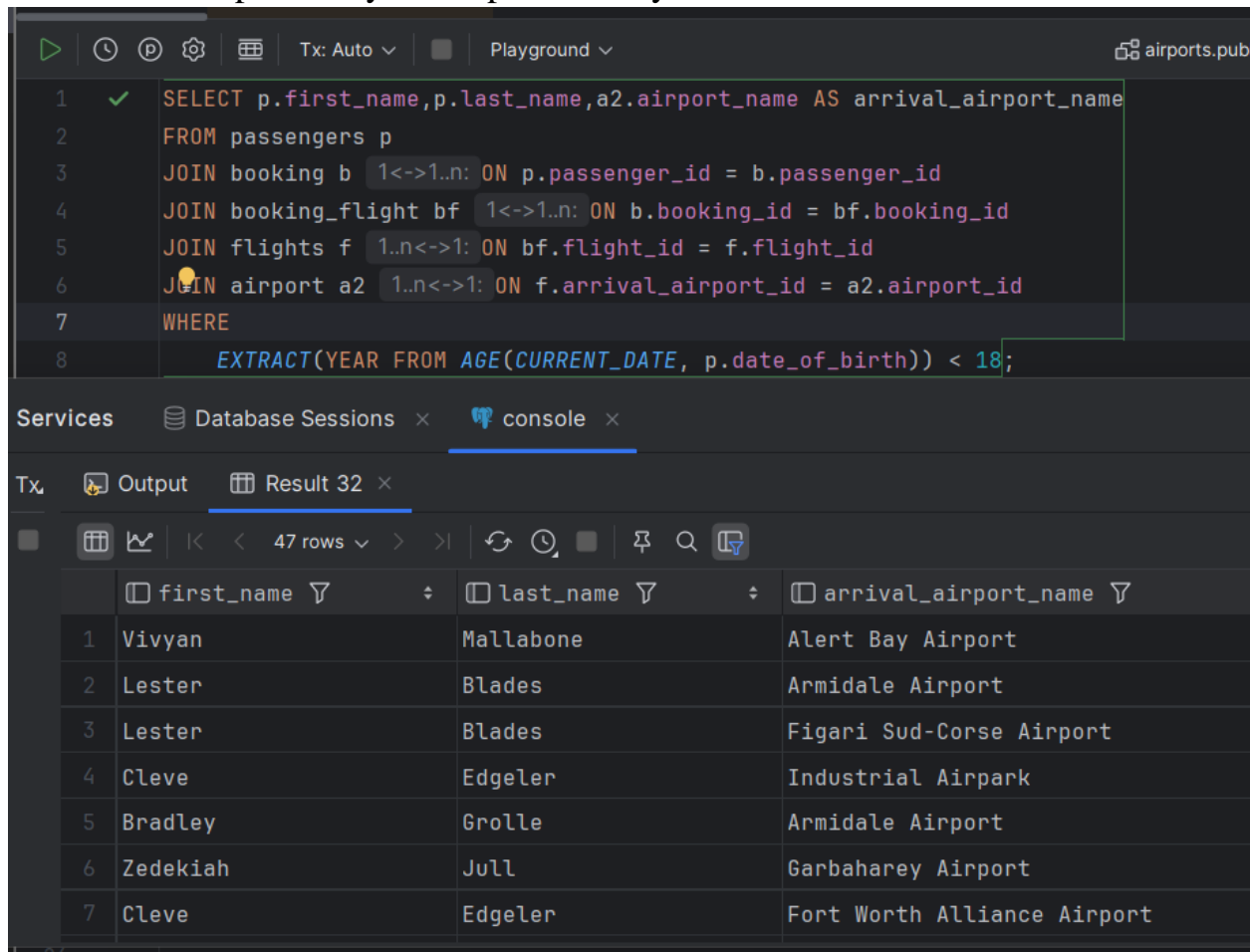
Services   Database Sessions ×   console ×

Tx.   Output   Result 32 ×

47 rows ∨

first_name	last_name	arrival_airport_name
1	Vivyan	Mallabone	Alert Bay Airport
2	Lester	Blades	Armidale Airport
3	Lester	Blades	Figari Sud-Corse Airport
4	Cleve	Edgeler	Industrial Airpark
5	Bradley	Grolle	Armidale Airport
6	Zedekiah	Jull	Garbaharey Airport
7	Cleve	Edgeler	Fort Worth Alliance Airport