```sql
--lab4

--1)

SELECT UPPER(airline_name) AS airline_name FROM Airline;


--2)

SELECT REPLACE(airline_name, 'Air', 'Aero') AS airline_name FROM Airline;


--3)

SELECT flight_id FROM Flights WHERE airline_id IN (1, 2);


--4)

SELECT airport_name FROM Airport

WHERE airport_name ILIKE '%Reginal%' AND airport_name ILIKE '%Air%';


--5)

SELECT first_name, last_name, TO_CHAR(date_of_birth, 'Month DD, YYYY')

AS Formatted FROM Passengers;


--6)

SELECT flight_id FROM Flights

WHERE act_arrival_time > sch_arrival_time;


--7)

SELECT first_name, last_name,

CASE

    WHEN DATE_PART('year', AGE(date_of_birth)) BETWEEN 18 AND 35 THEN 'Young'
```

```sql
    WHEN DATE_PART('year', AGE(date_of_birth)) BETWEEN 36 AND 55 THEN 'Adult'

END AS age_group FROM Passengers;

select * from booking;

--8)

SELECT booking_id, ticket_price,

CASE

    WHEN ticket_price < 20000 THEN 'cheap'

    WHEN ticket_price BETWEEN 21000 AND 35000 THEN 'medium'

    ELSE 'expensive'

END AS price_category FROM Booking;


--9)

SELECT airline_country, COUNT(*) AS airline_count FROM Airline

GROUP BY airline_country;


--10)

SELECT flight_id, sch_arrival_time, act_arrival_time FROM Flights

WHERE act_arrival_time > sch_arrival_time;




-- lab5

--1)

ALTER TABLE Passengers

ADD CONSTRAINT chk_passenger_age_min_10
```

```sql
CHECK (DATE_PART('year', AGE(date_of_birth)) >= 10);


--2)

ALTER TABLE Booking

ADD CONSTRAINT chk_ticket_price_range

CHECK (ticket_price BETWEEN 0 AND 50000);


--3)

ALTER TABLE Baggage

ADD CONSTRAINT chk_baggage_weight

CHECK (weight_in_kg BETWEEN 1 AND 23);

--4)

ALTER TABLE Airport

ADD CONSTRAINT chk_airport_name_length

CHECK (CHAR_LENGTH(airport_name) >= 10);


--5)

ALTER TABLE Airline

ADD CONSTRAINT uq_airline_code UNIQUE (airline_code);


ALTER TABLE Passengers

ADD CONSTRAINT uq_passport_number UNIQUE (passport_number);


ALTER TABLE Airport

ADD CONSTRAINT uq_airport_name UNIQUE (airport_name);
```

```sql
ALTER TABLE Booking

ADD CONSTRAINT uq_booking UNIQUE (flight_id, passenger_id);



--6)

ALTER TABLE Passengers

ADD CONSTRAINT chk_gender_age

CHECK (

    (gender = 'Male' AND DATE_PART('year', AGE(date_of_birth)) >= 18)

 OR (gender = 'Female' AND DATE_PART('year', AGE(date_of_birth)) >= 19)

);



--7)

ALTER TABLE Passengers

ADD CONSTRAINT chk_country_age

CHECK (

    (country_of_citizenship = 'Kazakhstan' AND DATE_PART('year', AGE(date_of_birth)) >= 18)

 OR (country_of_citizenship = 'France' AND DATE_PART('year', AGE(date_of_birth)) >= 17)

 OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND DATE_PART('year', AGE(date_of_birth)) >= 19)

);



--8)

ALTER TABLE Booking

ADD COLUMN ticket_discount DECIMAL(5,2);
```

ALTER TABLE Booking

ADD CONSTRAINT chk_ticket_discount
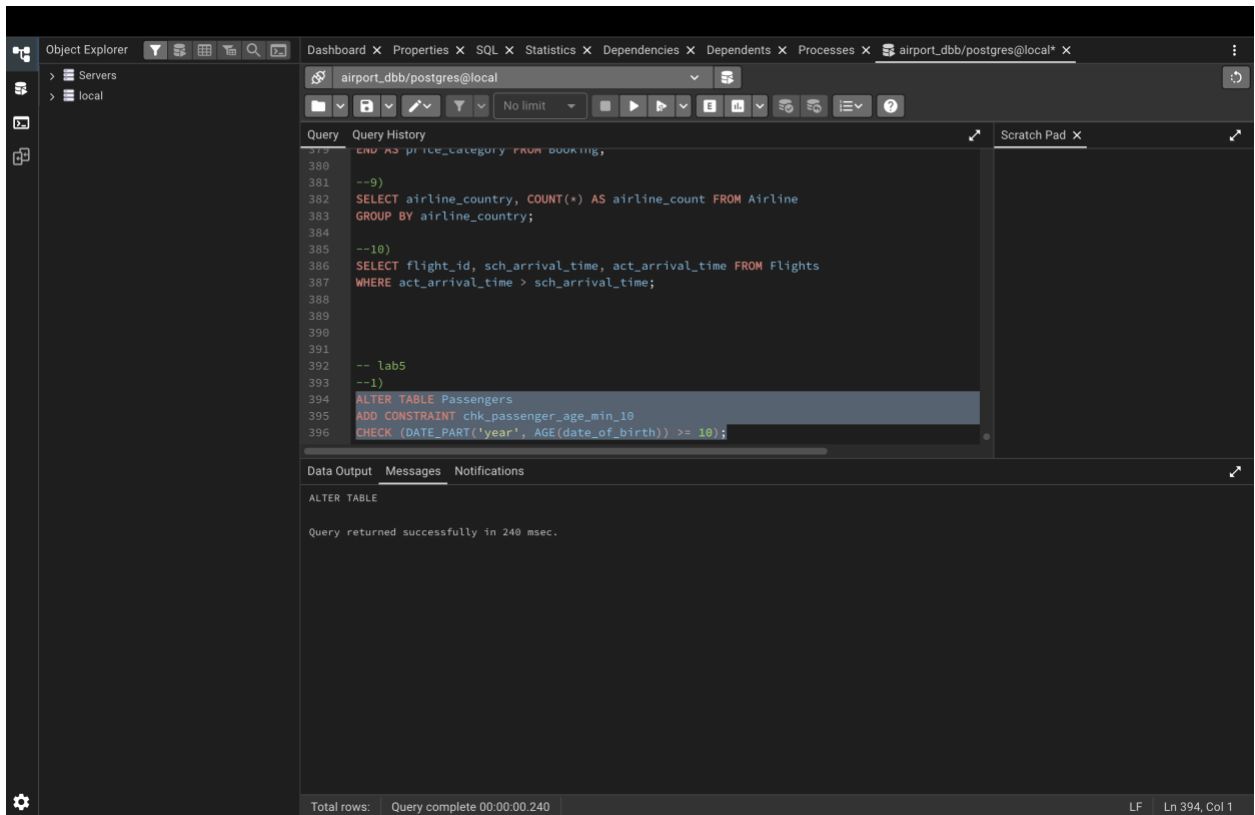
CHECK (

   (created_at >= '2024-01-01' AND ticket_discount = ticket_price * 0.05)

 OR (created_at < '2024-01-01' AND ticket_discount = ticket_price * 0.10)

);

1)

2)

3)

4)

5)

6)

7)

8)