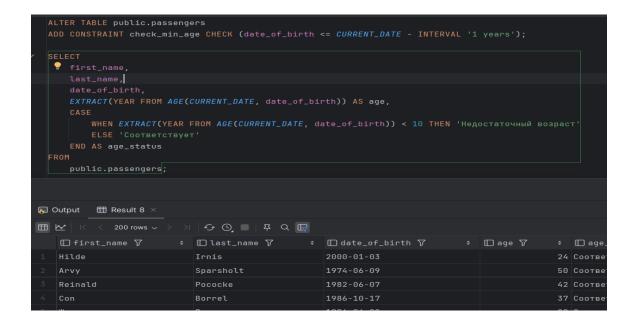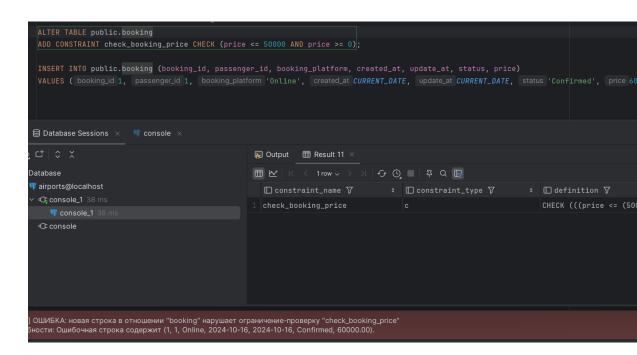# Laboratory work 5

We continue to work with the database from the previous laboratory works.

Take a full-page screenshot that covers the code and results of each task.

1. Add a CHECK constraint to passenger table to provide that passengers must be at least 10 years old.

2. Add a CHECK constraint to accept values in booking price not more than 50000tg and less than 0tg.

3. Add a CHECK constraint to accept the luggage weight between 1 and 23 kg.

```
--------------------------------------3
ALTER TABLE public.baggage
ADD CONSTRAINT check_luggage_weight CHECK (weight_in_kg BETWEEN 1 AND 23);
```

4. Add a CHECK constraint to ensure that all values in airport_name must have at least 10 characters.

```
--------------------------------------4
ALTER TABLE public.airport
ADD CONSTRAINT check_airport_name_length CHECK (LENGTH(airport_name) >= 10);
```

5. Add UNIQUE constraint to some columns in each table in database.

```
--------------------------------------5
ALTER TABLE public.passengers
ADD CONSTRAINT unique_passport_number UNIQUE (passport_number);

ALTER TABLE public.booking
ADD CONSTRAINT unique_booking_platform UNIQUE (booking_platform);

ALTER TABLE public.airline
ADD CONSTRAINT unique_airline_code UNIQUE (airline_code);
```

6. Add a CHECK constraint to ensure that male passengers must be at least 18 years old and female passengers must be 19 years old.

```
--------------------------------------6
ALTER TABLE public.passengers
ADD CONSTRAINT check_age_by_gender CHECK (
    (gender = 'male' AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years') OR
    (gender = 'female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')
);
--------------------------------------7
```

7. Add a CHECK constraint to add rule as follow (use column country_of_citizenship):

- Passengers from Kazakhstan must be at least 18 years old.
- Passengers from France must be at least 17 years old.
- Passengers from other countries must be at least 19 years old.

```sql
ALTER TABLE public.passengers
ADD CONSTRAINT check_age_by_country CHECK (
    (country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years') OR
    (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE - INTERVAL '17 years') OR
    (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')
);
```

8. Add a ticket_discount column to table booking and a CHECK constraint to apply some discount based on ticket price and created time:

- the constraint applies a 5% discount for tickets created after 2024-01-01,
  and 10% discount for tickets created before 2024-01-01.

```sql
);
---------------------------------------------------8

ALTER TABLE public.booking
ADD COLUMN ticket_discount numeric(5, 2),
ADD CONSTRAINT check_ticket_discount CHECK (
    (created_at > '2024-01-01' AND ticket_discount = price * 0.05) OR
    (created_at <= '2024-01-01' AND ticket_discount = price * 0.10)
);
```