

Lab work 2Version control

Database Explorer

Lab_db@localhost

- boarding_pass
- booking
 - columns
 - booking_id integer
 - flight_id integer
 - passenger_id integer
 - booking_platform varchar(50)
 - created_at timestamp
 - updated_at timestamp
 - status varchar(50)
 - ticket_price numeric(7,2)
 - keys 1
 - foreign keys 1

console_1passengers

Tx: AutoPlayground

Lab_db.public

```
1 ✓ ALTER TABLE booking
2     ADD CONSTRAINT chk_booking_price
3     CHECK (ticket_price >= 8 AND ticket_price <= 50000)
4     NOT VALID;
5
```

Services

Tx

Database

- Lab_db@localhost
 - console_1 21 ms
 - passengers 346 ms
 - Spark Jobs

'::00:08] Lab_db> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_age
 CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')
'::00:08] completed in 52 ms
'::00:15] Lab_db.public> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_age
 CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')
'::00:15] [42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists
'::00:42] Lab_db.public> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_gender_age
 CHECK (
 (gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')
 OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')
)
'::00:42] completed in 20 ms
'::00:53] Lab_db.public> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_country_age
 CHECK (
 (country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')
 OR (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')
 OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')
)
'::00:53] completed in 20 ms

5:1 LF UTF-8 4 spaces

Lab work 2

Version control

Database Explorer

Lab_db@localhost

public

tables 10

airline

airport

baggage

columns 5

baggage_id integer

weight_in_kg numeric(4,2)

created_at timestamp

updated_at timestamp

booking_id integer

keys 1

foreign keys 1

console_1

passengers

Lab_db.public

ALTER TABLE baggage

ADD CONSTRAINT chk_luggage_weight

CHECK (weight_in_kg BETWEEN 1 AND 23);

Services

Database

Lab_db@localhost

console_1 32 ms

passengers 346 ms

Spark Jobs

Lab_db> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

completed in 52 ms

Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

[42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists

Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_gender_age

CHECK (

(gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

)

completed in 20 ms

Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_country_age

CHECK (

(country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

)

Connected (moments ago)3:28 LF UTF-8 4 spaces

Lab work 2

Version control

Database Explorer

Lab_db@localhost

public

tables 10

airline

airport

baggage

columns 5

baggage_id integer

weight_in_kg numeric(4,2)

created_at timestamp

updated_at timestamp

booking_id integer

keys 1

foreign keys 1

console_1

passengers

Tx: Auto

Playground

Lab_db.public

1 ALTER TABLE airport

2 ADD CONSTRAINT chk_airport_name_length

3 CHECK (char_length(airport_name) >= 10)

4 NOT VALID ;

5

Services

Tx

Database

Lab_db@localhost

console_1 26 ms

passengers 346 ms

Spark Jobs

':00:08] Lab_db> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

':00:08] completed in 52 ms

':00:15] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

':00:15] [42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists

':00:42] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_gender_age

CHECK (

(gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

)

':00:42] completed in 20 ms

':00:53] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_country_age

CHECK (

(country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

)

Connected (moments ago)4:11 LF UTF-8 4 spaces

Lab work 2 Version control

Database Explorer

- Lab_db@localhost 1 of 8
 - Lab_db 1 of 3
 - public
 - tables 10
 - airline
 - airport
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
 - flights
 - passengers
 - columns 10
 - passenger_id integer
 - first_name varchar(50)
 - last_name varchar(50)
 - date_of_birth date
 - gender varchar(50)
 - country_of_citizenship varchar(50)
 - country_of_residence varchar(50)
 - passport_number varchar(20)
 - created_at timestamp
 - updated_at timestamp
 - keys 1
 - indexes 1
 - checks 1
 - security_check
 - Database Objects
 - Server Objects

console_1 passengers

```
1 ALTER TABLE passengers
2   ADD CONSTRAINT chk_passenger_age
3   CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '18 years');
4
```

[42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists

Connected (moments ago) 3:11 LF UTF-8 4 spaces

Lab work 2Version control

Database Explorer

Lab_db@localhost

- tables 10
 - airline
 - airport
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - columns 8
 - booking_id integer
 - flight_id integer
 - passenger_id integer
 - booking_platform varchar(50)
 - created_at timestamp

Services

- Database
 - Lab_db@localhost
 - console_1 14 ms
 - flights 527 ms
 - passengers 346 ms
 - Spark Jobs

console_1flightspassengers

Tx: AutoPlayground

Lab_db.public

1ALTER TABLE passengers

2ADD CONSTRAINT uq_passenger_passport UNIQUE (passport_number);

3

4ALTER TABLE flights

5ADD CONSTRAINT uq_flight_code UNIQUE (flight_id);

6

7ALTER TABLE booking

8ADD CONSTRAINT uq_booking_number UNIQUE (booking_id);

9

10ALTER TABLE airport

11ADD CONSTRAINT uq_airport_code UNIQUE (airport_id);

12

Lab_db> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

:00:08] completed in 52 ms

Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

:00:15] [42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists

Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_gender_age

CHECK (

(gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

)

:00:42] completed in 20 ms

Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_country_age

CHECK (

(country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTE

OR (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE

OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birtl

Connected (moments ago)2:11 LF UTF-8 4 spaces

Lab work 2Version control

Database Explorer

Lab_db@localhost1 of 8

Lab_db1 of 3

public

tables10

airline

airport

baggage

baggage_check

boarding_pass

booking

booking_flight

flights

passengers

columns10

Services

Database

Lab_db@localhost

console_138 ms

passengers346 ms

Spark Jobs

console_1passengers

Tx: AutoPlayground

Lab_db.public

```
1 ALTER TABLE passengers
2   ADD CONSTRAINT chk_passenger_gender_age
3   CHECK (
4     (gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years')
5     OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')
6   );
7
```

[2025-10-21 09:00:08] Connected

[2025-10-21 09:00:08] Lab_db> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

[2025-10-21 09:00:08] completed in 52 ms

[2025-10-21 09:00:15] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

[2025-10-21 09:00:15] [42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists

[2025-10-21 09:00:42] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_gender_age

CHECK (

(gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years')

OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

)

[2025-10-21 09:00:42] completed in 20 ms

Connected (moments ago)3:16 LF UTF-8 4 spaces

Lab work 2Version control

Database Explorer

Lab_db@localhost

boarding_pass

booking

columns

booking_id integer

flight_id integer

passenger_id integer

booking_platform varchar(50)

created_at timestamp

updated_at timestamp

status varchar(50)

ticket_price numeric(7,2)

ticket_discount numeric(5,2)

keys 2

console_1

flights

passengers

Tx: Auto

Playground

Lab_db.public

1 ALTER TABLE booking

2 ADD COLUMN ticket_discount numeric(5,2);

3

4 ALTER TABLE booking

5 ADD CONSTRAINT chk_ticket_discount

6 CHECK (

7 (created_at >= '2024-01-01' AND ticket_discount = 0.05) OR

8 (created_at < '2024-01-01' AND ticket_discount = 0.10)

9);

10

Services

Tx

Database

Lab_db@localhost

console_1 19 ms

flights 527 ms

passengers 346 ms

Spark Jobs

':00:08] Lab_db> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

':00:08] completed in 52 ms

':00:15] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_age

CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

':00:15] [42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists

':00:42] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_gender_age

CHECK (

(gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '19 years')

)

':00:42] completed in 20 ms

':00:53] Lab_db.public> ALTER TABLE passengers

ADD CONSTRAINT chk_passenger_country_age

CHECK (

(country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birth <= CURRENT_DATE - INTERVAL '10 years')

)

Connected (moments ago)2:7 LF UTF-8 4 spaces

Lab work 2Version control

Database Explorer

Lab_db@localhost1 of 8

- Lab_db1 of 3
 - public
 - tables10
 - airline
 - airport
 - baggage
 - baggage_check
 - boarding_pass
 - booking
 - booking_flight
 - flights
 - passengers
 - columns10

Services

Database

- Lab_db@localhost
 - console_125 ms
 - passengers346 ms

Spark Jobs

console_1passengers

Tx: AutoPlayground

Lab_db.public

```
1 ALTER TABLE passengers
2   ADD CONSTRAINT chk_passenger_country_age
3     CHECK (
4       (country_of_citizenship = 'Kazakhstan' AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years')
5       OR (country_of_citizenship = 'France' AND date_of_birth <= CURRENT_DATE - INTERVAL '17 years')
6       OR (country_of_citizenship NOT IN ('Kazakhstan', 'France') AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years')
7     );
8
```

[2025-10-21 09:00:15] Lab_db.public> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_age
 CHECK (date_of_birth <= CURRENT_DATE - INTERVAL '18 years')
[2025-10-21 09:00:15] [42710] ERROR: constraint "chk_passenger_age" for relation "passengers" already exists
[2025-10-21 09:00:42] Lab_db.public> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_gender_age
 CHECK (
 (gender = 'Male' AND date_of_birth <= CURRENT_DATE - INTERVAL '18 years')
 OR (gender = 'Female' AND date_of_birth <= CURRENT_DATE - INTERVAL '17 years')
)
[2025-10-21 09:00:42] completed in 20 ms
[2025-10-21 09:00:53] Lab_db.public> ALTER TABLE passengers
 ADD CONSTRAINT chk_passenger_country_age
 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 '18 years')
)
[2025-10-21 09:00:53] completed in 7 ms

8:1 LF UTF-8 4 spaces