

## Myngbay Ramazan Torebaiuly

1. Создаю таблицы Airline info , Airport , Baggage check , Baggage , Boarding pass , Booking flight , Booking , Flights , Passengers , Security check.
2. Для каждой таблицы выдаю по Primary Key
3. Для всех атрибутов сделал NOT NULL

### Таблица Airline\_info

```
CREATE TABLE Airline_info (  
  airline_id INT PRIMARY KEY,  
  airline_code VARCHAR(30) NOT NULL,  
  airline_name VARCHAR(50) NOT NULL,  
  airline_country VARCHAR(50) NOT NULL,  
  created_at TIMESTAMP NOT NULL,  
  updated_at TIMESTAMP NOT NULL,  
  info VARCHAR(50) NOT NULL  
);
```

### Таблица Airport

```
CREATE TABLE Airport (  
  airport_id INT PRIMARY KEY,  
  airport_name VARCHAR(50) NOT NULL,  
  country VARCHAR(50) NOT NULL,  
  state VARCHAR(50) NOT NULL,  
  city VARCHAR(50) NOT NULL,  
  created_at TIMESTAMP NOT NULL,  
  updated_at TIMESTAMP NOT NULL  
);
```

### Таблица Baggage\_check

```
CREATE TABLE Baggage_check (  
  baggage_check_id INT PRIMARY KEY,  
  check_result VARCHAR(50) NOT NULL,  
  created_at TIMESTAMP NOT NULL,  
  updated_at TIMESTAMP NOT NULL,  
  booking_id INT NOT NULL,  
  passenger_id INT NOT NULL  
);
```

### Таблица Baggage

```
CREATE TABLE Baggage (  
  baggage_id INT PRIMARY KEY,  
  weight_in_kg DECIMAL(4,2) NOT NULL,  
  created_at TIMESTAMP NOT NULL,  
  updated_at TIMESTAMP NOT NULL,  
  booking_id INT NOT NULL  
);
```

### Таблица Boarding\_pass

```
CREATE TABLE Boarding_pass (  
  boarding_pass_id INT PRIMARY KEY,  
  booking_id INT NOT NULL,  
  seat VARCHAR(50) NOT NULL,  
  boarding_time TIMESTAMP NOT NULL,  
  created_at TIMESTAMP NOT NULL,  
  updated_at TIMESTAMP NOT NULL  
);
```

### Таблица Booking\_flight

```
CREATE TABLE Booking_flight (  
    booking_flight_id INT PRIMARY KEY,  
    booking_id INT NOT NULL,  
    flight_id INT NOT NULL,  
    created_at TIMESTAMP NOT NULL,  
    updated_at TIMESTAMP NOT NULL  
);
```

#### **Таблица Booking**

```
CREATE TABLE Booking (  
    booking_id INT PRIMARY KEY,  
    flight_id INT NOT NULL,  
    passenger_id INT NOT NULL,  
    booking_platform VARCHAR(50) NOT NULL,  
    created_at TIMESTAMP NOT NULL,  
    updated_at TIMESTAMP NOT NULL,  
    status VARCHAR(50) NOT NULL,  
    price DECIMAL(7,2) NOT NULL  
);
```

#### **Таблица Flights**

```
CREATE TABLE Flights (  
    flight_id INT PRIMARY KEY,  
    sch_departure_time TIMESTAMP NOT NULL,  
    sch_arrival_time TIMESTAMP NOT NULL,  
    departing_airport_id INT NOT NULL,  
    arriving_airport_id INT NOT NULL,  
    departing_gate VARCHAR(50) NOT NULL,  
    arriving_gate VARCHAR(50) NOT NULL,  
    airline_id INT NOT NULL,  
    act_departure_time TIMESTAMP NOT NULL,  
    act_arrival_time TIMESTAMP NOT NULL,  
    created_at TIMESTAMP NOT NULL,  
    updated_at TIMESTAMP NOT NULL  
);
```

#### **Таблица Passengers**

```
CREATE TABLE Passengers (  
    passenger_id INT PRIMARY KEY,  
    first_name VARCHAR(50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    date_of_birth DATE NOT NULL,  
    gender VARCHAR(50) NOT NULL,  
    country_of_citizenship VARCHAR(50) NOT NULL,  
    country_of_residence VARCHAR(50) NOT NULL,  
    passport_number VARCHAR(20) NOT NULL,  
    created_at TIMESTAMP NOT NULL,  
    updated_at TIMESTAMP NOT NULL  
);
```

#### **Таблица Security\_check**

```
CREATE TABLE Security_check (  
    security_check_id INT PRIMARY KEY,  
    check_result VARCHAR(20) NOT NULL,  
    created_at TIMESTAMP NOT NULL,  
    updated_at TIMESTAMP NOT NULL,  
    passenger_id INT NOT NULL  
);
```

### **5.Переименовал таблицу Airline\_Info на Airline**

```
ALTER TABLE Airline_info RENAME TO Airline;
```

## 6.Переименовал колонку price на ticket\_price в таблице Букинг

```
ALTER TABLE Booking RENAME COLUMN price TO ticket_price;
```

## 7.Изменил тип данных departing\_gate на текст

```
ALTER TABLE Flights ALTER COLUMN departing_gate TYPE TEXT;
```

## 8.Удалил колонну info из Airline

```
ALTER TABLE Airline DROP COLUMN info;
```

## 9.Сделал релэйшнс между таблицами

```
ALTER TABLE Boarding_pass
```

```
ADD CONSTRAINT fk_boardingpass_booking FOREIGN KEY (booking_id) REFERENCES Booking(booking_id);
```

```
ALTER TABLE Booking_flight
```

```
ADD CONSTRAINT fk_bookingflight_booking FOREIGN KEY (booking_id) REFERENCES Booking(booking_id);
```

```
ALTER TABLE Booking_flight
```

```
ADD CONSTRAINT fk_bookingflight_flight FOREIGN KEY (flight_id) REFERENCES Flights(flight_id);
```

```
ALTER TABLE Flights
```

```
ADD CONSTRAINT fk_flights_departing_airport FOREIGN KEY (departing_airport_id) REFERENCES Airport(airport_id);
```

```
ALTER TABLE Flights
```

```
ADD CONSTRAINT fk_flights_arriving_airport FOREIGN KEY (arriving_airport_id) REFERENCES Airport(airport_id);
```

```
ALTER TABLE Flights
```

```
ADD CONSTRAINT fk_flights_airline FOREIGN KEY (airline_id) REFERENCES Airline(airline_id);
```

## DML

1.Сгенерировал и создал 200 строк в таблицу аирпорт

```
INSERT INTO Airport (
```

```
airport_id, airport_name, country, state, city, created_at, updated_at
```

```
)
```

```
SELECT
```

```
generate_series(1, 200),          генерирую уникальный айди от 1-200
```

```
'Airport_' || generate_series(1, 200),    аирпорт названия
```

```
'Country_' || (random()*50)::int,      генерация случайного страны
'State_' || (random()*50)::int,        слчайный штат
'City_' || (random()*50)::int,         создаем случайный город
NOW(),                                нау дата
NOW();                                нау дата апдэйт
```

2. добавить казэйр в таблицу айрлайн со страной казахстан

```
INSERT INTO Airline (
    airline_id, airline_code, airline_name, airline_country, created_at, updated_at
)
VALUES
    (51, 'KZ001', 'KazAir', 'Kazakhstan', NOW(), NOW());
```

3.обновляю страну казахстан на страну турция

```
update Airline
set airline_country = 'Turkey',
    updated_at = NOW()
where airline_name = 'KazAir';
```

4.добавляю новые три компаний одним кодом в таблицу эйрлайнс

```
INSERT INTO Airline (
    airline_id, airline_code, airline_name, airline_country, created_at, updated_at
)
VALUES
    (52, 'FR001', 'AirEasy', 'France', NOW(), NOW()),
    (53, 'BR001', 'FlyHigh', 'Brazil', NOW(), NOW()),
    (54, 'PL001', 'FlyFly', 'Poland', NOW(), NOW());
```

5.удалить все запросы в таблице флайтс в 2024 году

```
DELETE FROM Flights
WHERE sch_arrival_time >= '2024-01-01'
AND sch_arrival_time < '2025-01-01';
```

6.в таблице букинг увеличил цену билетов на 15 процентов

```
UPDATE Booking
SET ticket_price = ticket_price * 1.15,
    updated_at = NOW();
```

7.удалил все билеты где цены превышает 10000

DELETE FROM Booking

WHERE ticket\_price < 10000;