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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 атрибуттов 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 айрпорт

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),   айропорт 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 с 2024 года

```
DELETE FROM Flights

WHERE EXTRACT(YEAR FROM sch_arrival_time) = 2024;
```

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;
```