**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 атрибуттов сделал NOT NULL**

**Таблица Аirline\_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 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;