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

);

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

);

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

);

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

);

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

);

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

);

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

);

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

);

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

);

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

);

ALTER TABLE Airline\_info ADD PRIMARY KEY (airline\_id);

ALTER TABLE Airport ADD PRIMARY KEY (airport\_id);

ALTER TABLE Baggage\_check ADD PRIMARY KEY (baggage\_check\_id);

ALTER TABLE Baggage ADD PRIMARY KEY (baggage\_id);

ALTER TABLE Boarding\_pass ADD PRIMARY KEY (boarding\_pass\_id);

ALTER TABLE Booking\_flight ADD PRIMARY KEY (booking\_flight\_id);

ALTER TABLE Booking ADD PRIMARY KEY (booking\_id);

ALTER TABLE Flights ADD PRIMARY KEY (flight\_id);

ALTER TABLE Passengers ADD PRIMARY KEY (passenger\_id);

ALTER TABLE Security\_check ADD PRIMARY KEY (security\_check\_id);

**5** ALTER TABLE Airline\_info RENAME TO Airline;

**6** ALTER TABLE Booking RENAME COLUMN price TO ticket\_price;

**7** ALTER TABLE Flights ALTER COLUMN departing\_gate TYPE TEXT;

**8** ALTER TABLE Airline DROP COLUMN info;

**9**

ALTER TABLE Security\_check ADD CONSTRAINT fk\_passenger FOREIGN KEY (passenger\_id) REFERENCES Passengers(passenger\_id);

ALTER TABLE Booking ADD CONSTRAINT fk\_booking\_passenger FOREIGN KEY (passenger\_id) REFERENCES Passengers(passenger\_id);

ALTER TABLE Baggage\_check ADD CONSTRAINT fk\_bc\_passenger FOREIGN KEY (passenger\_id) REFERENCES Passengers(passenger\_id);

ALTER TABLE Baggage\_check ADD CONSTRAINT fk\_bc\_booking FOREIGN KEY (booking\_id) REFERENCES Booking(booking\_id);

ALTER TABLE Baggage ADD CONSTRAINT fk\_baggage\_booking FOREIGN KEY (booking\_id) REFERENCES Booking(booking\_id);

ALTER TABLE Boarding\_pass ADD CONSTRAINT fk\_bp\_booking FOREIGN KEY (booking\_id) REFERENCES Booking(booking\_id);

ALTER TABLE Booking\_flight ADD CONSTRAINT fk\_bf\_booking FOREIGN KEY (booking\_id) REFERENCES Booking(booking\_id);

ALTER TABLE Booking\_flight ADD CONSTRAINT fk\_bf\_flight FOREIGN KEY (flight\_id) REFERENCES Flights(flight\_id);

ALTER TABLE Flights ADD CONSTRAINT fk\_flight\_depart\_airport FOREIGN KEY (departing\_airport\_id) REFERENCES Airport(airport\_id);

ALTER TABLE Flights ADD CONSTRAINT fk\_flight\_arrival\_airport FOREIGN KEY (arriving\_airport\_id) REFERENCES Airport(airport\_id);

ALTER TABLE Flights ADD CONSTRAINT fk\_flight\_airline FOREIGN KEY (airline\_id) REFERENCES Airline(airline\_id);

**DML**

INSERT INTO Airport (airport\_id, airport\_name, country, state, city, created\_at, updated\_at)

SELECT

g,

'Airport\_' || g,

(ARRAY['USA','Kazakhstan','Germany','France','UK','Japan','China','Turkey','Russia','Brazil','Italy','Spain','Canada','Australia','Mexico'])[(g % 15) + 1],

(ARRAY['California','Texas','Almaty Region','Astana Region','Bavaria','Île-de-France','England','Tokyo','Beijing','Istanbul','Moscow','Sao Paulo','Lombardy','Catalonia','Ontario'])[(g % 15) + 1],

(ARRAY['New York','Los Angeles','Almaty','Astana','Munich','Paris','London','Tokyo','Beijing','Istanbul','Moscow','Rio','Milan','Barcelona','Toronto'])[(g % 15) + 1],

NOW() - (random() \* INTERVAL '365 days'),

NOW()

FROM generate\_series(1,200) g;

**SELECT COUNT(\*) FROM Airport; -- Должно быть 200**

**SELECT \* FROM Airport LIMIT 10; -- Посмотреть первые 10 записей**

**9.2**

**INSERT INTO Airline (airline\_id, airline\_code, airline\_name, airline\_country, created\_at, updated\_at)**

**VALUES (1, 'KZ001', 'KazAir', 'Kazakhstan', NOW(), NOW());**

**9.3**

**UPDATE Airline SET airline\_country = 'Turkey' WHERE airline\_name = 'KazAir';**

**9.4**

**INSERT INTO Airline (airline\_id, airline\_code, airline\_name, airline\_country, created\_at, updated\_at)**

**VALUES**

**(2, 'FR001', 'AirEasy', 'France', NOW(), NOW()),**

**(3, 'BR001', 'FlyHigh', 'Brazil', NOW(), NOW()),**

**(4, 'PL001', 'FlyFly', 'Poland', NOW(), NOW());**

**9.5**

**DELETE FROM Flights WHERE EXTRACT(YEAR FROM sch\_arrival\_time) = 2024;**

**9.6**

**UPDATE Booking**

**SET ticket\_price = ticket\_price \* 1.15;**

**9.7**

**DELETE FROM Booking WHERE ticket\_price < 10000;**