LAB1

Entities and Attributes:

1. Airport

- airport id (PK, INT)
- airport name (VARCHAR)
- country (VARCHAR)
- state (VARCHAR)
- city (VARCHAR)
- created_at (TIMESTAMP)
- updated_at (TIMESTAMP)

2. Airline

- airline id (PK, INT)
- airline code (VARCHAR)
- name (VARCHAR)
- country (VARCHAR)
- created_at (TIMESTAMP)
- updated_at (TIMESTAMP)

3. Flight

- flight_id (PK, INT)
- departing_gate (VARCHAR)
- arriving gate (VARCHAR)
- airline_id (FK → Airline, INT)
- departure_airport_id (FK → Airport, INT)
- arrival_airport_id (FK → Airport, INT)
- scheduled_departure_time (TIMESTAMP)
- scheduled_arrival_time (TIMESTAMP)
- actual departure time (TIMESTAMP)
- actual_arrival_time (TIMESTAMP)
- created_at (TIMESTAMP)
- updated_at (TIMESTAMP)

4. Passenger

- passenger_id (PK, INT)
- first name (VARCHAR)
- last_name (VARCHAR)
- gender (VARCHAR)
- date_of_birth (DATE)
- country_of_citizenship (VARCHAR)
- country_of_residence (VARCHAR)
- passport_number (VARCHAR, UNIQUE)
- created_at (TIMESTAMP)
- updated at (TIMESTAMP)

5. Booking

- booking_id (PK, INT)
- flight id (FK → Flight, INT)
- passenger_id (FK → Passenger, INT)
- status (VARCHAR)
- booking_platform (VARCHAR)
- ticket_price (DECIMAL (10,2))
- created_at (TIMESTAMP)
- updated_at (TIMESTAMP)

6. BookingChange

- booking_change_id (PK, INT)
- booking_id (FK → Booking, INT)
- change_details (TEXT)
- created_at (TIMESTAMP)
- updated_at (TIMESTAMP)

7. BoardingPass

- boarding_pass_id (PK, INT)
- booking_id (FK → Booking, INT)
- seat (VARCHAR)

- boarding time (TIMESTAMP)
- created_at (TIMESTAMP)
- updated_at (TIMESTAMP)

8. Baggage

- baggage id (PK, INT)
- booking id (FK → Booking, INT)
- weight_kg (DECIMAL (5,2))
- created at (TIMESTAMP)
- updated_at (TIMESTAMP)

9. BaggageCheck

- baggage_check_id (PK, INT)
- baggage id (FK → Baggage, INT)
- passenger_id (FK → Passenger, INT)
- check_results (VARCHAR)
- created at (TIMESTAMP)
- updated at (TIMESTAMP)

10. SecurityCheck

- security_check_id (PK, INT)
- passenger_id (FK → Passenger, INT)
- check_results (VARCHAR)
- created_at (TIMESTAMP)
- updated at (TIMESTAMP)

Relationships:

1. Airport – Flight

- $_{\circ}$ Airport.airport_id \rightarrow Flight.departure_airport_id
- o Airport.airport_id → Flight.arrival_airport_id
- o (1:N)

2. Airline - Flight

- o Airline.airline id → Flight.airline id
- 。 **(1:N)**

3. Flight – Booking

- ∘ Flight.flight id → Booking.flight id
- o (1:N)

4. Passenger - Booking

- ∘ Passenger.passenger_id → Booking.passenger_id
- 。 **(1:N)**

5. **Booking – Booking Change**

- Booking.booking_id → BookingChange.booking_id
- o (1:N)

6. **Booking – BoardingPass**

- o (1:1)

7. Booking - Baggage

- Booking.booking id → Baggage.booking id
- 。 **(1:N)**

8. Baggage – BaggageCheck

- ₀ Baggage.baggage_id → BaggageCheck.baggage_id
- 。 **(1:N)**

9. Passenger – BaggageCheck

- ∘ Passenger.passenger_id → BaggageCheck.passenger_id
- o (1:N)

10. **Passenger – SecurityCheck**

- Passenger.passenger_id → SecurityCheck.passenger_id
- (1:N)

