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**
   - Airport.airport_id → Flight.departure_airport_id
   - Airport.airport_id → Flight.arrival_airport_id
   - (**1:N**)

2. **Airline – Flight**
   - Airline.airline_id → Flight.airline_id
   - (**1:N**)

3. **Flight – Booking**
   - Flight.flight_id → Booking.flight_id
   - (**1:N**)

4. **Passenger – Booking**
   - Passenger.passenger_id → Booking.passenger_id
   - (**1:N**)

5. **Booking – BookingChange**
   - Booking.booking_id → BookingChange.booking_id
   - (**1:N**)

6. **Booking – BoardingPass**
   - Booking.booking_id → BoardingPass.booking_id
   - (**1:1**)

7. **Booking – Baggage**
   - Booking.booking_id → Baggage.booking_id
   - (**1:N**)

8. **Baggage – BaggageCheck**
   - Baggage.baggage_id → BaggageCheck.baggage_id
   - (**1:N**)

9. **Passenger – BaggageCheck**
   - Passenger.passenger_id → BaggageCheck.passenger_id
   - (**1:N**)

10. **Passenger – SecurityCheck**

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

Flight
- flight_id — int
- departing_gate — varchar
- arriving_gate — varchar
- airline_id — int
- departure_airport_id — int
- arrival_airport_id — int
- scheduled_depar — timestamp
- scheduled_arrive — timestamp
- actual_departure — timestamp
- actual_arrival_tim — timestamp
- created_at — timestamp
- updated_at — timestamp

Airport
- airport_id — int
- airport_name — varchar?
- country — varchar
- state — varchar
- city — varchar
- created_at — timestamp
- updated_at — timestamp

Airline
- airline_id — int
- airline_code — varchar
- name — varchar?
- country — varchar
- created_at — timestamp
- updated_at — timestamp

Booking
- booking_id — int
- flight_id — int
- passenger_id — int
- status — varchar
- booking_platform — varchar
- ticket_price — decimal
- created_at — timestamp
- updated_at — timestamp

BoardingPass
- boarding_pass_id — int
- booking_id — int
- seat — varchar
- boarding_time_bi — timestamp
- created_at — timestamp
- updated_at — timestamp

BaggageCheck
- baggage_check_id — int
- baggage_id — int
- passenger_id — int
- check_results — varchar
- created_at — timestamp
- updated_at — timestamp

Passenger
- passenger_id — int
- first_name — varchar
- last_name — varchar
- gender — varchar
- date_of_birth — date
- country_of_citizensl — varchar
- country_of_residenc — varchar
- passport_number — varchar
- created_at — timestamp
- updated_at — timestamp

BookingChange
- booking_change_id — int
- booking_id — int
- change_details — text
- created_at — timestamp
- updated_at — timestamp

Baggage
- baggage_id — int
- booking_id — int
- weight_kg — decimal
- created_at — timestamp
- updated_at — timestamp

SecurityCheck
- security_check_id — int
- passenger_id — int
- check_results — varchar
- created_at — timestamp
- updated_at — timestamp