Payment: book_ref, pay_num, amount_per_tick, credit_card_no, discount

bookings: email, book_date, book_ref, phone, contact_name, STATUS

ticket: ticket_no, book_ref, passenger_id, trip_no

Aircraft: RANGE, model, aircraft_code, movie

seats: aircraft_code, seat_no, fare_conditions

flights: flight_id, flight_no, arrival_airport, departure_airport, scheduled_departure, scheduled_arrival, seats_available, seats_booked, aircraft_code

Airport: airport_code, airport_name, city_id, timezone, coordinates

passenger: passenger_id, passenger_name, passenger_nation, passenger_DOB

Trip: trip_no, flight_id1, flight_id2

boarding_passes: fare_conditions, checked_bags, flight_id, boarding_no, meal, seat_no

boarding_flight: flight_id, baggage_claim, d_boarding_time, d_gate, a_gate

location: city_id, city, country

classes:
A:
B:
C:

Project Report

This project serves to function as a real-time airline website where users can explore available flights, book a direct or indirect flight for any number of people (up to 5), and retrieve information relative to a booked flight (i.e. boarding time, departure time, boarding gate, etc.). There is also functionality for employees of this airline to check on the status and availability of a particular flight, add a new flight to the system, and retrieve a confirmation of payment for a particular ticket or group of tickets. The web application allows for multiple users to explore and book flights concurrently, with transactions in place to prevent errors occurring such as two customers booking the same seat on a flight. It handles this and other errors in input by displaying to the user an error message. The goal of this project was to achieve seamless communication between the user and the database.

The entity relationship model is based on the model for homework 3 but has been extended to fit the needs of the current homework. The bookings table has been extended to allow for payment information from the user. This stores billing information, number of tickets purchased and price per ticket. Once a flight is purchased, we provided a way to store and retrieve details regarding the flight. This includes boarding time, departure and arrival gates, and the baggage claim number. For round trip or indirect flights, we set up the trip table, which keeps track of each flight in the trip so that the correct boarding information is given. Finally, smaller quality-of-life improvements were made such as adding detailed information about each passenger, adding the option of a meal or movie to the longer flights, and providing more detailed information about each city's location.