An Airline Database System

Diagram

Description automatically generated

The main entity of the airline database system is the Bookings table. The process of a reservation is as follows. A customer would choose the departure airport and arrival airport alongside the month of which they want to leave. Behind the scenes, the system will fill out the bookings table with a unique book\_ref,cutomer email, the book\_date and the number of passengers in that flight. Additionally, the system would provide a customer instance using the customer’s email as the unique identifier of the customer.With this a customer entity will be made with customer email and payment id as attributes and when the customer pays, a unique payment id will be issued for the transaction. The system will also ask the customer for the passenegers’ information such as name, email and phone and would be used to make a unique ticket\_no corresponding to the passenger. With this being done, and assuming there are available seats in the flight (flight\_id and leg\_no corresponds to a unique, single flight), the ticket\_flights table is composed of the unique ticket\_no, corresponding flight\_id and leg\_no to create an instance of the specific flight being reserved. Now, there could be multiple flights corresponding to a single ticket (connecting flights).

To clarify on some intentional details done by the system, leg\_actual is not filled out due to the nature of the app. The leg\_actual table would be filled out in theory once the airplane takes off and arrives to its destination updating the corresponding attributes of the table such as actual departure and arrival times. Also, seat selection is not available because of COVID and seats are assigned randomly.