

CS 4400 - Moss

Team 77

Neil Barry, Owen Cardwell, Raymond Jia

11/2/2021

Project Phase II

Relational Schema

airline: (name, rating)

airport: (airport_ID, name, time_zone, street, city, state, zip)

attraction: (airport_ID [fk1], name)

fk1: airport_ID -> airport.airport_ID, airport_ID is non null

flight: (airline [fk2], flight_number, depart_time, arrive_time, flight_date, seat_cost, capacity, airport_to [fk3], airport_from [fk4])

fk2: airline -> airline.name, airline is non null

fk3: airport_to -> airport.airport_ID, airport_to is non null

fk4: airport_from -> airport.airport_ID, airport_from is non null

account(email, fname, lname, acct_password, is_admin, phone_number)

customer: (username [fk5], location, cvv, expiration_date, credit_card_number)

fk5: username -> account.email, username is non null

credit_card_number is unique

owner: (username [fk6])

fk6: username -> account.email, username is non null

property: (owner [fk7], name, description, street, city, state, zip, cost_per_night_per_person, capacity)

fk7: owner -> owner.username, owner is non null

amenity: (owner [fk8], property [fk9], name)

fk8: owner -> property.owner, owner is non null

fk9: property -> property.name, property is non null

booking: (customer [fk10], airline [fk11], flight_number [fk12], number_seats)

fk10: customer -> customer.username, customer is non null

fk11: airline -> flight.airline, airline is non null

fk12: flight_number -> flight.flight_number, flight_number is non null

nearby: (owner [fk13], property [fk14], airport [fk15], distance)

fk13: owner -> property.owner, owner is non null

fk14: property -> property.name, property is non null

fk15: airport -> airport.airport_ID, airport is non null

reservation: (customer [fk16], owner [fk17], property [fk18], start_date, end_date, num_guests)

fk16: customer -> customer.username, customer is non null

fk17: owner -> property.owner, owner is non null

fk18: property -> property.name, property is non null

review: (customer [fk19], owner [fk20], property [fk21], content, score)

fk19: customer -> customer.username, customer is non null

fk20: owner -> property.owner, owner is non null

fk21: property -> property.name, property is non null

rates: (owner [fk22], customer [fk23], score)

fk22: owner -> owner.username, owner is non null

fk23: customer -> customer.username, customer is non null

rated_by: (owner [fk24], customer [fk25], score)

fk24: owner -> owner.username, owner is non null

fk25: customer -> customer.username, customer is non null

Unhandled Constraints:

- Ensure that for every booking the end date is after the start date.
- Ensure that after every reservation a customer reviews a property.
- Ensure that flights have enough seats left to accommodate a booking.
- Ensure that properties have a high enough capacity to accommodate a reservation.
- Ensure that both customers and owners cannot have usernames corresponding to an email of an admin account.
- Ensure that when rating, the owner and customer are different users.