Admin = (<u>email</u>, fname, lname, password) Owner = (email, fname, lname, password, phone number) Customer = (email, fname, lname, password, phone number, credit card #, exp date, CVV, current location) Property = (<u>owner email</u> [fk1], <u>name</u>, description, streets, city, state, ZIP) cost per night per person, capacity, Fk1: owner → Owner.email Amenities = (<u>owner_email</u> [fk2], <u>property_name</u> [fk3], <u>amenity</u>) Fk2: owner email → Owner.email Fk3: property name → Property.name Airline = (<u>name</u>, rating) Flight = (<u>airline_name</u> [fk4], <u>flight number</u>, departure time, arrival time, date, cost_per_seat, capacity, airport from [fk5], airport to [fk6]) Fk4: airline → airline.name Fk5: airport_from → Airport.name Fk6: airport to → Airport.name Airport = (airport ID, name, time zone, street, city, state, ZIP) Attractions = (<u>airport nearby</u> [fk7], <u>attraction</u>) Fk7: airport nearby → airport.name Close_to = (property [fk8], airport [fk9], distance) Fk8: property → property.owner, property.name Fk9: airport → airport.name Reserve = (property reserved [fk10], customer reserving [fk11], no_of_guests, start_date, end date) Fk10: property_reserved → property.owner, property.name Fk11: customer_reserving → customer.email Review = (property reviewed [fk12], customer reviewing [fk13], content, score) Fk12: property reviewed → property.owner, property.name

Fk13: customer_rewviewing → customer.email

Book = (<u>customer_booking</u> [fk14], <u>flight_booked</u> [fk15], number_of_seats)

Fk14: customer_booking → customer.email

Fk15: flight booked → flight.airline, flight.flight#

Customer_Rating = (<u>customer_rater</u> [fk16], <u>owner_rated [fk17]</u>, <u>score</u>)

Fk16: customer rater → customer.email

Fk17: owner_rated → owner.email

Owner_Rating = (<u>owner_rater</u> [fk18], <u>owner_rated</u> [fk19], <u>score</u>)

Fk18: owner_rater → owner.email

Fk19: customer rated → customer.email

Unhandled Constraints:

- 1. Ensure that customers can only book flights if they have any remaining seats
- 2. Ensure that customers cannot reserve beyond the capacity for a given property
- 3. Ensure that all ratings for airlines are between 1 and 5
- 4. Ensure that all customers rate owners on a scale of 1 to 5
- 5. Ensure that all owners rate customers on a scale of 1 to 5
- 6. Ensure that all reviews are not only less than or equal to 300 characters but also greater than or equal to 10
- 7. Ensure that the input for airport_to and airport_from are different
- 8. Ensure the distance attribute is for the Close to schema is less than 50
- 9. Ensure the start date is before the end date in the Reserve schema
- 10. Ensure the departure time is before the arrival time in the Flight schema