

## Relational Schema:

vacation\_account = (email, fname, lname, passwords)

admin\_acc = (Account\_email[fk1])

fk1: Account\_email -> vacation\_account.email

client\_acc = (Account\_email[fk2], Phone\_Number)

fk2: Account\_email -> vacation\_account.email

customer = (email\_addy[fk3], Phone\_number[fk4], credit\_card\_num, exp\_date, cvv, current\_location)

Fk3: email\_addy -> vacation\_account.email

Fk4: Phone\_number -> client\_acc.Phone\_number

owner\_acc = (owner\_email[fk5], cell\_number[fk6])

Fk5: owner\_email -> vacation\_account.email

Fk6: cell\_number -> client\_acc.Phone\_number

airline = (airline\_name, rating)

airport = (airport\_ID, street, city, state, zip, airport\_name, timezone)

property = (owners[fk7], property\_name, descrip, street, city, state, zip, cost, capacity)

fk7: owners -> vacation\_account.email

flight = (air\_name[fk8], flight\_num, departure\_time, arrival\_time, date\_flight, cost, capacity, from\_airportID[fk9], to\_airportID[fk10])

Fk8: air\_name -> airline.airline\_name

Fk9: from\_airportID -> airport.airport\_ID (from is non-null)

Fk10: to\_airportID -> airport.airport\_ID (to is non-null)

amenities = (owners, p\_name[fk11], amenities\_name)

fk11: owners, p\_name -> property.owners, property.property\_name

airportattractions = (airport\_ID[fk12], attractions\_name)

fk12: airport\_ID -> airport.airport\_ID

IsRateBy = (owner\_email[fk13], customer\_email[fk14], cscore)

Fk15: owner\_email -> vacation\_account.email

Fk16: customer\_email -> vacation\_account.email

Rate = (Owner\_email[fk17], Customer\_email[fk18], score)

Fk17: Owner\_email -> vacation\_account.email

Fk18: Customer\_email -> vacation\_account.email

book = (customer[fk19], a\_name, f\_num[fk20], num\_seats)

Fk19: customer -> vacation\_account.email

Fk20: a\_name, f\_num -> flight.air\_name, flight.flight\_num

review = (customer[fk21], owners, property\_ID[fk22], content, score)

fk21: customer -> vacation\_account.email

fk22: owners, property\_ID -> property.owners, property.property\_name

reserve = (customer[fk23], owners, property\_ID[fk24], start\_date, end\_date,  
num\_guests)

fk23: customer -> vacation\_account.email

fk24: owners, property\_ID -> property.owners, property.property\_name

is\_close = (owneremail, propertyname[fk25], airport\_ID[fk26], distance)

fk25: owneremail, propertyname -> property.owners, property.property\_name

fk26: airport\_ID -> airport.airport\_ID

### **Unhandled Constraints:**

Ensure that every account must be either client account or admin account (can't be both), and every client must be owner, or customer, or both;

Ensure that start\_date is earlier than end\_date in reserve relationship.

Ensure that the arrival\_time and departure\_time for flights can't be the same and the arrival\_time has to be earlier than departure\_time within the same timezone.

Ensure that the capacity value for each property is larger than the total number of number\_of\_guests in reserve relationship.

Ensure that is\_close relationship between airport and property has distance value less than 50;

Ensure that review has content larger than 10 characters and smaller than 300 characters.

Ensure that the capacity value of flight is larger than the total number of booked seats in book relationship between customers and flight.

Ensure that the exp\_date of credit cards has to be later than the start\_date of reservations.

Ensure that the rating scores are integers between one and five.