

## Relational Schema

**administrator** = (email, fname, lname, pw)

**client** = (email, fname, lname, pw, phone\_number)

**owner\_acct** = (email [fk1])

fk1: email → **client** (email)

**customer** = (email [fk2], card\_number, card\_cvv, card\_expiry\_date, current\_location)

fk2: email → **client** (email)

**owner\_rating** = (owner\_email [fk3], customer\_email [fk4], score)

fk3: owner\_email → **owner\_acct** (owner\_email)

fk4: customer\_email → **customer** (customer\_email)

**customer\_rating** = (owner\_email [fk5], customer\_email [fk6], score)

fk5: owner\_email → **owner\_acct** (owner\_email)

fk6: customer\_email → **customer** (customer\_email)

**property** = (owner\_email [fk7], p\_name, p\_description, street, city, state\_abbr, zip, nightly\_cost\_per\_person, capacity)

fk7: owner\_email → **owner\_acct** (email)

**property\_amenities** = (owner\_email [fk8], pa\_name [fk9], amenity)

fk8: owner\_email → **property** (owner\_email)

fk9: name → **property** (p\_name)

**property\_review** = (customer\_email [fk10], property\_owner\_email [fk11], property\_name [fk12], content, score)

fk10: customer\_email → **customer** (email)

fk11: property\_owner\_email → **property** (owner\_email)

fk12: property\_name → **property** (p\_name)

**property\_reserve** = (customer\_email [fk13], property\_owner\_email [fk14], p\_name [fk15], st\_date, end\_date, num\_guests)

fk13: customer\_email → **customer** (email)

fk14: property\_owner\_email → **property** (owner\_email)

fk15: property\_name → **property** (p\_name)

**airline** = (name, rating)

**airport** = (id, airport\_name, street, city, state, zip, time\_zone)

**airport\_attractions** = (airport\_id [fk16], attraction)

fk16: airport\_id → **airport** (id)

**flight** = (airline\_name [fk17], flight\_num, departing\_airport [fk18], arriving\_airport [fk19], departure\_time, arrival\_time, flight\_date, cost\_per\_seat, capacity)

fk17: airline\_name → **airline** (name)

fk18: departing\_airport → **airport** (id)

fk19: arriving\_airport → **airport** (id)

**book\_flight** = (customer\_email [fk20], airline\_name [fk21], flight\_num [fk22], number\_of\_seats)

fk20: customer\_email → **customer** (email)

fk21: airline\_name → **flight** (airline\_name)

fk22: flight\_num → **flight** (flight\_num)

**property\_near\_airport** = (airport\_id [fk23], p\_owner\_email [fk24], p\_name [fk25], distance)

fk23: airport\_id → **airport** (id)

fk24: p\_owner\_email → **property** (owner\_email)

fk25: p\_name → **property** (p\_name)

### Unhandled Constraints

- Ensure that an administrator and client (or a child of client) cannot reference the same account
- Ensure that flights cannot depart and arrive from/to the same airport
- Ensure that if a user is both an owner and customer, they cannot review themselves
- Ensure that if a user is both an owner and a customer, they cannot review their own property