Assume info kept only as long as user and listing available. If either deleted, all associated info is deleted. Ideally, each table would maintain a check of if the user or listing is still active, and so things like comments would be by “account-deleted” or smthn, but time constraints

“The host however can cancel a booking anytime and similarly the renter can cancel as well.” So can cancel even if someone is there.

/Property Listing:

Listing id: auto increment

Listing type: apartment, house, secondary unit, unique space, bed and breakfast, boutique hotel

Number of bedrooms: int

Number of beds:

Number of bathrooms: (0.5 for no shower/no tub situations)

Title

Description

1 listing has 1 address, many amenities and many common spaces, many availabilities and many bookings and 1 user. Assume if user removes listing, comments for that listing or the renter, as well as its listing history and any future bookings are also removed.

/Address:

Listing id

x-coordinate

y-coordinate

Street

Unit/code: string

City

Country

State/Province/Territory

Postal Code

1 Address has 1 listing. Assume (x, y, unit) are key, where unit can be NULL.

/Amenities:

Listing id

Type:

Essentials: (towel, bedsheets, soap, toilet paper, pillows)

Wifi: (make sure name and password shown in house)

Shampoo

Closet/Drawers

TV

Heat

AC

Desk/Workspace

Fireplace

Iron

Hair Dryer

Breakfast, Coffee, Tea

Smoke Detector

Carbon Monoxide Detector

First Aid Kit

Fire Extinguisher

Locks on Bedrooms

Many listings have many amenities.

/User:

First name

Last name

Birthdate: check at least 18

Occupation

Contact number

sin: unique

Email: must have @ and .

Password

1 user has many listings, many bookings and many Payment. Assume if user deleted then all associated info, from address and credit info to listing/comments and booking history are deleted. This is because we go into areas of privacy and security that I don’t want to deal with.

/Payment Information:

Sin

Card number: 13 – 19

Card type: visa 4, mastercard 5, American express 3, discover 6

Expiry date: date

1 User has many credit cards and many users can use the same credit card. Assume no fraud checks based on calculations on credit card number.

/Availability:

Listing id

Availability id: auto increment

Listing use: Full, private room, shared

Start date

End date

Price

1 listing can have many availabilities.

Booking:

Booking id

User Id

Listing id

Start date

End date

Status: Canceled by Host, Canceled by Renter, Booked

Card number

Booking History:

User id

Booking id

**SELECT booking\_id IN bookings WHERE user\_id ==**

Listing History:

Listing id

Booking Id

**SELECT booking\_id IN bookings WHERE listing\_id ==**

Host Listings:

User id

Listing id

**SELECT listing\_id IN Listings WHERE user\_id ==**

Listing Comment:

Renter id

Listing id

Booking id

Date

Comment

User Comment:

Commentor id

Commentee id

Listing id

Booking id

Date

Comment

Assume users can only make a comment through a booking ???

No triggers required since, as of 8.0.16, checks are enforced: <https://dev.mysql.com/doc/refman/8.0/en/create-table-check-constraints.html>