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The assumption about the unique identifiers:

X: Unique identifier for customer details – Passport no

Y: Unique identifier for payment verification – Customer bank account holder name

X: Unique identifier for customer identity verification

X is used to verify customer identity. Every time customer checks in, AirTnT will need to verify the customer identity details so it is assumed that they could use passport no for each customer to make sure the customer checks-in on the later date is having the same identity as he was registered initially. Passport no is assumed as it is used globally. So, Passport no is unique for each person throughout the world and it will be simple to identify the number too. Sometimes, you might need to check the country details and check for the identity but for passport, it will be unique for every country.

<https://www.pexa.com.au/verification-of-identity>

As seen in the PEXA website, they use passport details under some categories to verify the identity.

<https://www.equifax.com.au/idmatrix/features/identity-verification/document-verification-service-dvs>

Australian driving license website also use passport details as documents required for customers

Y: Unique identifier for customer payment verification

Y is used to verify the payment made by customer. AirTnT want to make sure the payment made by customer is made by that customer only. So, it's assumed that customer bank account holder's name will be used to verify the customer payment details. Account number of all the customer will be unique at the bank so by using these names, it will become easy to verify that customer has paid for the bill to AirTnT facility.

<https://www.experian.co.uk/identity-and-fraud/identity-checking/bank-account-verification.html>

Experian uses bank account verification to make sure there is no fraudulent activity is taking place.

<https://www.transunion.co.uk/products-and-services/fraud-and-id/callvalidate>

Tranunion also uses the account name to make sure the customer is identified for payment as it will use all kind of bank account details

And, x and y attributes are having varchar datatypes as they can be typed upto specific range as described in the comments.

There are also more assumptions in this assignment such as:

Customer\_id is assumed to be 6 digits numerical code

tour guide id is assumed to be 4 digits numerical code

Activity\_code is assumed to be 5 digits numerical code

Item\_code is assumed to be mixture of number and characters so it's assumed to be varchar of size 15 as any size of code upto 15 is valid

HouseShare code is also numeric code which is assumed to be 4 or 5 digits.

Room\_type is assumed to be only two types so it will be identified by 0 or 1 as in the comments.

HouseKeeper bankruptcy check is in Boolean as it's yes or no.

HouseKeeper policecheck code is assumed to be alphanumeric code so it's in the varchar size so it can be typed up to the given sized length.

Cost\_Centre code is assumed to be similar code as item code so it can be typed up to minimum size of text.

All the first name, last name, address for customer, tourguide, housekeeper etc can be typed upto specific length as they are in varchar.

Phone number are having char datatype as it is must 10 digit number.

Total item price is assumed to be the derived attribute so it's not included in the normalization as it will be calculated based on quantity of item and item price which is included in the conceptual model.