Database for storing and processing information regarding the Airbnb use case

Conception phase

DLBDSPBDM01 – Project: Build a Data Mata in SQL

Author: Desiree Mukwashu

Matriculation no: 92116455

Tutor: Prof.Shahram Dadashnia

1. Project goals

The database aims to provide a platform for hosts to offer rental apartments and for guests to find temporary accommodations. The idea was born out of frustration with the inflated prices and unavailability of the desired hotels which are often fully booked. The fundamental goal of our platform is to offer affordable BnBs, giving guests the flexibility to rent rooms for as long as they need. Hosts can list their properties for rent, while administrators manage transactions and ensure the platform runs smoothly.

2. Requirements specification

- What roles (person/user groups) are there?

This platform consists of three roles which are Guests, Hosts and Administrators.

- A host is a property owner or the one who manages the property and make it possible for guests to book.
- The guest browses through the website, searches for their desired property, then makes the booking.
- Administrator manages the user accounts and manages the platform to ensure it runs smoothly for both hosts and guests.

- What actions do these roles perform?

Hosts - provide check in and check out instructions and confirm or decline bookings made by guests. They also ensure the environment is safe for guests by executing proper security measures.

Guests - use the platform to select their desired BnB. They may leave feedback of their experience after their stay, to help improve things for future guests.

Administrators - ensure that payments are processed correctly and also track financial transactions. They deal with the verification of identities of the hosts and guest accounts, whilst making sure everything on the platform is running smoothly.

- Which data and functions are required?

For an Airbnb to operate efficiently, various data and functions are required for each role. The host needs personal information including name, id, contact details and payment information like bank details so that they are able to receive payments from guests. Hosts deal with creating, updating and deleting property listing. They ensure that amenities are available and also reject and accept bookings. Finally, the hosts go through the ratings and reviews left by guests after their stay.

Guests need to provide their names, email, profile picture. For the host to be able to see that a guest is eligible to stay at their place, the guest must provide a credit card. Guests should be able to search for their desired properties, book it and the host will look into the booking. They can also leave reviews and ratings based on their experiences.

Administrators manage the whole platform, which is checking all activities done by guests and host. They access user data such as name, id and the payment information as well. All transactions are handled by them so as to maintain financial integrity. In a situation where they are disagreements between the host and guest, administrators are there to make sure peace is maintained. Administrators manage the security and technical issues of the property.