

This is a documentation and installation manual for a comprehensive data schema for the Airbnb database system. It provides an overview of the database schema, along with the instructions for installation and configuring the system

## Database schema overview.

The database comprises of 21 different tables which include:

Host, Guest, Location, Photo, Place, Property, Amenities, Availability, Listing, Wishlist, Review, Tags, Tag, Payment, UPI, Credit/Debit Card, Net Banking, Complain, Administration, Administrator and Booking.

These tables contain relevant information of the different user, listing, booking, payment and all other relevant information for the system.

The Host and Guest tables manage user-specific information, linking property owners and guests to their respective roles. The Location and Photo tables store geographical and image data, supporting listings and profiles. The Place, Property, and Amenities tables describe property characteristics, detailed descriptions, and features like Wi-Fi. Availability ensures accurate booking schedules, while Listing aggregates all property-related data. Wishlist and Review enhance user experience by saving favourites and capturing feedback. Tag and Tags improve searchability with descriptive categories. Administrator and Administration tables manage platform functions, linking administrators to users. Booking handles reservations, Payment records transactions, and UPI, Net Banking, and Credit/Debit Card tables ensure secure transactions. Complain tracks user complaints for prompt resolution and high service standards.

## Pre-requisites

Before you begin, ensure you have the following software installed:

1. **PostgreSQL**: The core database management system.
2. **pgAdmin**: A web-based interface for managing PostgreSQL databases.
3. **SQL Shell (psql)**: A command-line interface for interacting with PostgreSQL.

## Download and Install PostgreSQL

If you haven't already downloaded and installed PostgreSQL, follow these steps:

1. **Visit the official PostgreSQL website:** [PostgreSQL Download](#)
2. **Download the PostgreSQL installer** for your operating system (Windows, macOS, Linux).
3. **Run the installer** and follow the on-screen instructions to install PostgreSQL, pgAdmin, and SQL Shell (psql). By default, the installer includes all these components. Remember the username and password which you provide during the installation.

## Setup Instructions

1. **Open your command prompt or terminal:**
  - To check if `psql` is installed, type the following command:  

```
psql --version
```
  - If `psql` is installed, you will see the version information. If not installed, install it using the PostgreSQL installer or package manager for your operating system.
2. **Restore the Database:**
  - Ensure you have the `airbnb.sql` file exported from your previous database setup.
  - Navigate to the directory where your `airbnb.sql` file is located using the command prompt or terminal.
  - Use the following commands to create a new database with your chosen name.  

```
createdb <database_name>
```
  - Now restore the database with the following commands.  

```
psql -U <Username> -d <database_name> -f airbnb.sql
```
  - Replace `<Username>` with your username and `<database_name>` with the database you just created.
3. **Verification:**

- In order to verify whether the database is restored, let's use user friendly GUI pyAdmin by opening pyAdmin.
- After opening, click to Servers → PostgreSQL16 → Databases → <database\_name> → Schemas → public → Tables.
- You should find all 23 tables.

If you want to change and work with the database, click the query tool icon located on the left corner of pyAdmin right to the Object Explorer.