CS 202 Project Report

Design Of The Project

There are 9 tables: roles, user, roomType, room, guest, booking, housekeepingSchedule, inventory and amenities.

roles table has 3 attributes:

- role_id is unique for each role.
- role_name shows the name of each role. (administrator, receptionist, housekeeping)
- role_desc basically describes related jobs description.

user table has 5 attributes.

- user_id uniquely identifies each user.
- role_id attribute is a foreign key that references roles table's role_id attribute.
- user_name attribute stores the name of the user.
- user_phone attribute stores the phone number of the user.
- user_mail attribute stores the e-mail of the user.

roomType table has 3 attributes.

- rType_id uniquely identifies each roomType.
- r_desc describes the room type.
- r_capacity stores the number of people that can stay in related room type.

room table has 3 attributes:

- room_id uniquely identifies each room.
- room_name describes the name of the room.
- room_type is a foreign key that references roomType table's rType_id.

guest table has 3 attributes.

- guest_id uniquely identifies each guest.
- guest_name stores the name of the guest.
- guest_phone stores the phone number of the guest.

booking table has 11 attributes.

- book_id uniquely identifies each booking.
- room_name references room table.
- user_id references user table.
- guest_id references guest table.
- guest_count stores the number of guests that a booking has.
- checkin_date stores the checkin date of the guest.
- checkout_date stores the checkout date of the guest.
- is_paid attribute is 1 if payment is done, otherwise it is 0.
- Price attribute stores the total price of the booking.
- Is_booked

- confirmation_status attribute is set to :
  0: denied
  1: pending
  2:confirmed
  3:checked-in
  4:checked-out

housekeepingSchedule table has 5 attributes.

- Schedule_id uniquely identifies each housekeepingSchedule.
- user_id shows the user that is responsible for cleaning.
- room_id is the room that is cleaned.
- is_cleaned attribute is 0 if the room is dirty, otherwise it is 1.
- cleaning_date stores the date of the cleaning.

Inventory table has 3 attributes.

- room_id stores room id.
- amenities_id stores amenity id.
- Quantity stores how many specific amenity is stored in a specific room.

amenities table has 3 attributes.

amenities_id uniquely identifies each amenity.

amenities_name describe the amenity.

Design Choices:

System takes checkin and checkout dates from the guest, if there is a room between given dates guest can book a room.

When guests checkout from a room, iscleaned attribute in housekeepingSchedule is set to 0. If it's not 1, new guests can not checkin to that room.

If a guest is deleted from guest table, same guest's bookings that are in the past are also deleted.

If user is deleted from user table or room_name is deleted from room table, corresponding user_id attribute in booking table is set to null but in housekeepingSchedule corresponding row is deleted from database.

If role_id is deleted from roles, role_id in user table is set to null.

If rType_id is deleted, room_type in room table is set to null.

There is a view that ensures housekeeping can only view room availability but nothing about Guest information.

DML file that is provided should be runned before DDL is runned.

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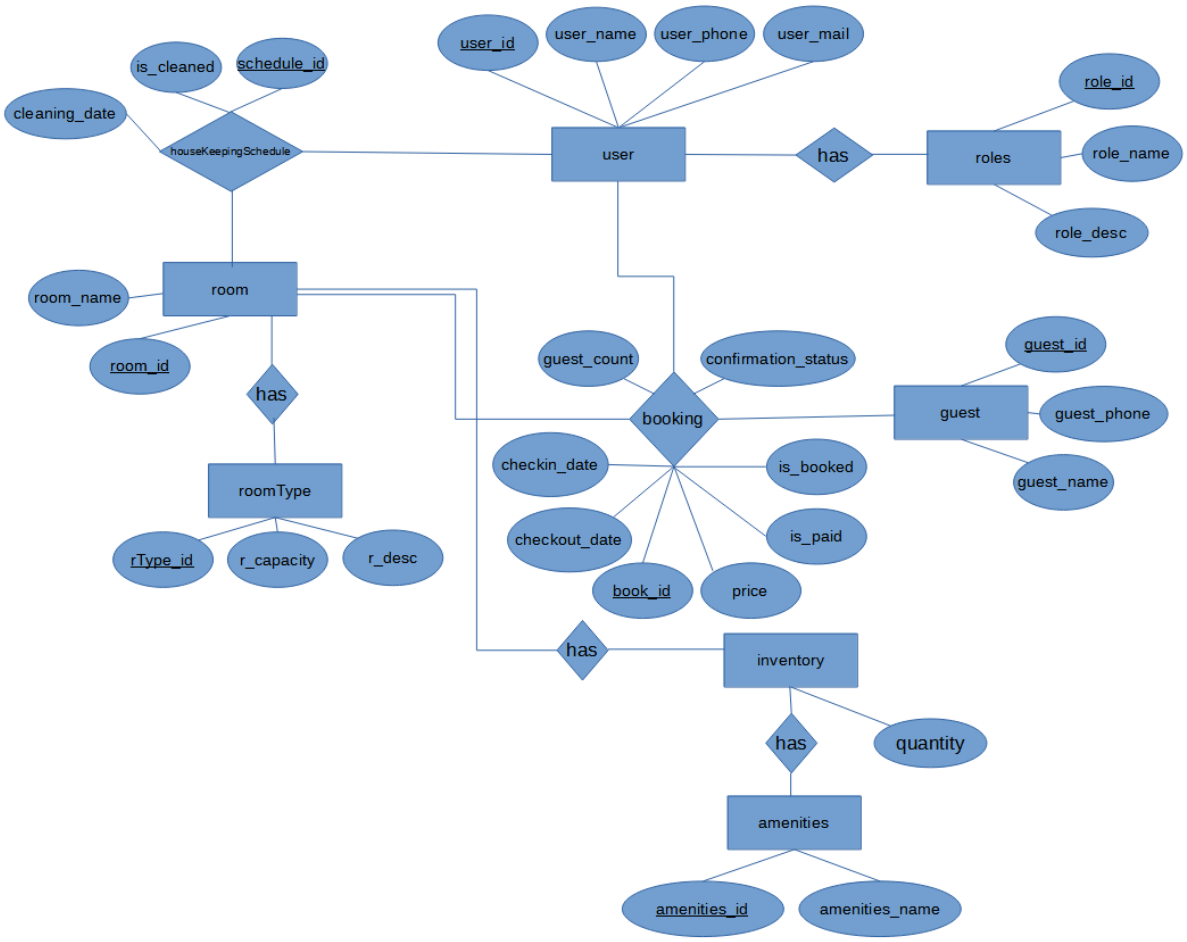
ER Diagram



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