

Model Design

1. User Model

The **User** model represents a user in the system. It contains personal details like name, email, password, and optional fields like phone number and profile picture.

Fields:

- **id**: A unique identifier for the user (UUID).
 - **firstName**: The user's first name.
 - **lastName**: The user's last name.
 - **email**: The user's email address (must be unique).
 - **password**: The user's password (hashed for security).
 - **phoneNumber**: An optional field for the user's phone number (must be unique if provided).
 - **profilePic**: An optional field for the user's profile picture.
 - **bookings**: A list of bookings made by the user (one-to-many relation with the **Booking** model).
 - **hotels**: A list of hotels owned by the user (one-to-many relation with the **Hotel** model).
 - **notifications**: A list of notifications received by the user (one-to-many relation with the **Notification** model).
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2. Hotel Model

The **Hotel** model represents a hotel in the system. It contains details like the hotel name, location, rating, and the owner's information.

Fields:

- **id**: A unique identifier for the hotel (UUID).
- **ownerId**: The ID of the user who owns the hotel (foreign key to the **User** model).
- **bookingId**: An optional field to link the booking ID.
- **name**: The name of the hotel.
- **logo**: An optional logo for the hotel.
- **address**: The hotel's address.
- **location**: The geographical location of the hotel.
- **rating**: An optional rating of the hotel.
- **images**: A list of images for the hotel stored in JSON format.
- **roomType**: A list of room types offered by the hotel (one-to-many relation with the **RoomType** model).
- **bookings**: A list of bookings for the hotel (one-to-many relation with the **Booking** model).

- **owner**: A reference to the **User** model for the owner of the hotel.
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3. RoomType Model

The **RoomType** model represents the types of rooms available in a hotel, including their price, amenities, and images.

Fields:

- **id**: A unique identifier for the room type (UUID).
 - **name**: The name of the room type.
 - **amenities**: A list of amenities available in the room, stored in JSON format.
 - **pricePerNight**: The price of the room per night.
 - **images**: A list of images for the room type, stored in JSON format.
 - **hotelId**: The ID of the hotel offering this room type (foreign key to the **Hotel** model).
 - **hotel**: A reference to the **Hotel** model.
 - **rooms**: A list of individual rooms of this type (one-to-many relation with the **Room** model).
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4. Room Model

The **Room** model represents individual rooms in a hotel. Each room belongs to a specific room type.

Fields:

- **id**: A unique identifier for the room (UUID).
 - **roomNumber**: The room number for this particular room.
 - **roomTypeId**: The ID of the room type (foreign key to the **RoomType** model).
 - **roomType**: A reference to the **RoomType** model for this room's type.
 - **bookings**: A list of bookings associated with this room (one-to-many relation with the **Booking** model).
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5. Booking Model

The **Booking** model represents a booking made by a user for a room, flight, or hotel. It stores details about the booking, including dates, payment information, and its status.

Fields:

- **id**: A unique identifier for the booking (UUID).
 - **userId**: The ID of the user who made the booking (foreign key to the **User** model).
 - **roomId**: The ID of the room booked (foreign key to the **Room** model, optional).
 - **roomTypeId**: The ID of the room type booked (foreign key to the **RoomType** model, optional).
 - **flightId**: The ID of the flight booked (foreign key to the **Flight** model, optional).
 - **hotelId**: The ID of the hotel booked (foreign key to the **Hotel** model, optional).
 - **checkIn**: The check-in date and time.
 - **checkOut**: The check-out date and time.
 - **paymentInfo**: Payment details stored in JSON format.
 - **price**: The total price of the booking.
 - **status**: The status of the booking (one of the following: **CONFIRMED**, **PENDING**, or **CANCELLED**).
 - **createdAt**: The date and time when the booking was created.
 - **user**: A reference to the **User** model for the user who made the booking.
 - **room**: A reference to the **Room** model for the room booked.
 - **hotel**: A reference to the **Hotel** model for the hotel booked.
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6. City Model

The **City** model represents a city in the system, including its name and the country it's located in.

Fields:

- **id**: A unique identifier for the city (UUID).
 - **city**: The name of the city.
 - **country**: The country where the city is located.
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7. Airport Model

The **Airport** model represents an airport in a city. Each airport has a unique code, name, and location.

Fields:

- **id**: A unique identifier for the airport (UUID).
- **city**: The name of the city where the airport is located.
- **country**: The country where the airport is located.
- **code**: The unique code for the airport (e.g., IATA code).
- **name**: The name of the airport.

8. Notification Model

The **Notification** model represents a notification sent to a user. Notifications contain a title, description, and a flag to track whether they've been read.

Fields:

- **id**: A unique identifier for the notification (UUID).
- **userId**: The ID of the user who receives the notification (foreign key to the **User** model).
- **title**: The title of the notification.
- **description**: A brief description of the notification.
- **isRead**: A boolean flag indicating whether the notification has been read.
- **user**: A reference to the **User** model for the user who received the notification.