Functionalities of *CozyHeaven* web app:

For Users:

1. **User Registration and Login:**
   - Allow users to create accounts and log in securely.

2. **Search and Filters:**
   - Provide a search functionality for users to find hotels based on location, date, price range, and amenities.
   - Implement filters to refine search results.

3. **Hotel Listings:**
   - Display detailed information about each hotel, including images, amenities, room types, and pricing.

4. **Room Booking:**
   - Allow users to book rooms for specific dates and select room types.

5. **User Profile:**
   - Enable users to manage their profiles, view booking history, and update personal information.

6. **Payment Integration:**
   - Integrate secure payment gateways for users to make reservations and payments online.

7. **Booking Confirmation:**
   - Send confirmation emails or messages with booking details after a successful reservation.

8. **Cancellation and Modification:**

- Implement a cancellation policy and allow users to modify or cancel their bookings.

9. **User Notifications:**
- Send notifications (email, SMS, or app notifications) for booking confirmation, reminders, and other relevant information.

10. **Wishlist/Favorites:**
- Enable users to add hotels to their wishlist or mark them as favorites for future reference.

For Hotel Administrators:

1. **Hotel Management Dashboard:**
- Provide a dashboard for hotel administrators to manage hotel details, room availability, and bookings.

2. **Room and Inventory Management:**
- Allow administrators to update room availability, add new room types, and manage inventory.

3. **Booking Management:**
- View and manage booking details, check-ins, and check-outs.

4. **Customer Management:**
- Maintain a database of customer information, bookings, and preferences.

5. **Pricing and Discounts:**
- Set and manage room prices, discounts, and promotions.

6. **Analytics and Reports:**
- Generate reports on bookings, revenue, and customer trends.

7. **Customer Support:**

- Provide tools for customer support, including a chat system or ticketing system.

8. **Content Management:**
- Update and manage content such as hotel descriptions, images, and amenities.

9. **Promotions and Marketing:**
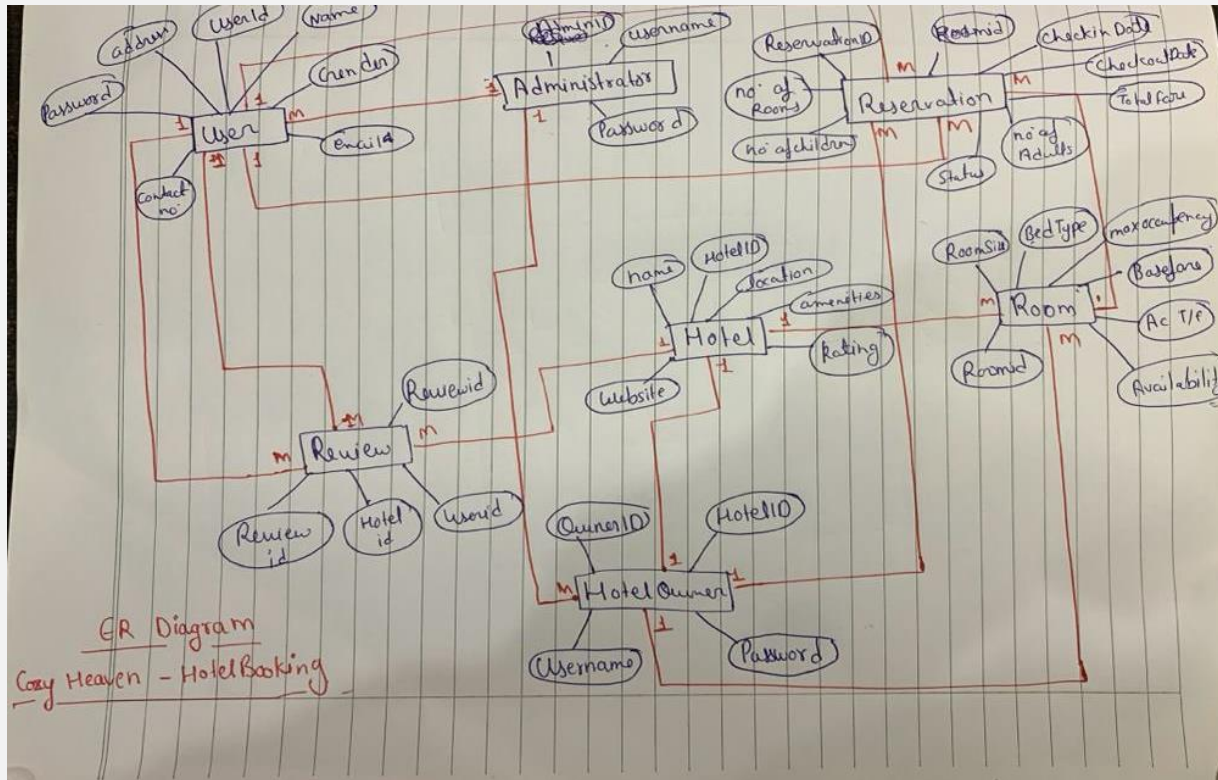- Create and manage promotional offers and marketing campaigns.

10. **Integration with External Systems:**
- Integrate with external systems such as channel managers or property management systems (PMS).

11. **Security and Compliance:**
- Implement security measures to protect user data and comply with data protection regulations.

ER DIAGRAM

Relationships:

- User

Can make multiple reservations (One-to-Many: User to Reservation)

Can leave multiple reviews for different hotels (One-to-Many: User to Review)

- Hotel

Can have multiple rooms (One-to-Many: Hotel to Room)

Can receive multiple reviews (One-to-Many: Hotel to Review)

- Room

Belongs to one hotel (Many-to-One: Room to Hotel)

Can be reserved in multiple reservations (One-to-Many: Room to Reservation)

- Reservation

Is made by one user (Many-to-One: Reservation to User)

Includes one room (Many-to-One: Reservation to Room)

- Review

Is left by one user (Many-to-One: Review to User)

Is for one hotel (Many-to-One: Review to Hotel)

- Administrator

Manages multiple users (One-to-Many: Administrator to User)

Manages multiple hotel owners (One-to-Many: Administrator to HotelOwner)

- HotelOwner

Owns one hotel (One-to-One: HotelOwner to Hotel)

Manages multiple rooms (One-to-Many: HotelOwner to Room)

Manages multiple reservations (One-to-Many: HotelOwner to Reservation)