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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| actors | guests | receptionist | staff-members | manager | maintainance-group | CAPTCHA Verification System | Google Maps | system |
| use cases | * make online reservation * view room availability * update reservation * cancel reservation * create account and manage profile * view own booking * print booking * Issue Room Key (send notification for receptionist while check in) * make payment * make request for checkout * make request to specific servant * give feedback * talk to the receptionist and other staff members or manager * get request for extending or terminating reservation date * contact in real time to the servant. * view food menu and order food and make payment (the user is expected to be in the room) * make payment for other services in the hotel(staff member have Id so the request is sent to that specific staff member) | * make online reservation for the users that use manual system * update reservation * cancel reservation * track reservation * view room avaliablity * view requests from gusts * contact to the staff, manager, and gusts. * view user accounts * get notified by the staff members while the guests checkout if all things are ok * Get notified by the guest while check in * Check-in Guest * Mark the status of the rooms while the guests check in * View Account * Communicate to specific guest search the guest and communicate * make request for checkout to the staff for specific guest(in case the guest is not sent checkout request) | * get notified when the user needs check out * notify the receptionist the user capable to checkout * request for maintenance * notified when the user has make seccessful payment for other services * notified when the guest make order * contact to the receptionist, manager, and gusts. * mark the status of the room while checkout (Add/Update Housekeeping Status) * View Account | * create account and allocate roles for the servant users * manage account(add, remove or disable and delete account) * view the reports that is analysed by the system * Add Room * Update Room * Remove Room * View Account * View Booking * Manage food menu | * get notifid when there is maintenance request * request for materials for the manager | * verify the user is not anonymous user | * track the location of the hotel relative to the current location of the guest making reservation | * send a notification to the guest to inquire about their intentions (if they need checkout or extend there wait time the checkout button will send notification for the staff members) or remind them to extend their stay (if the current room is not not reserved yet the system will tell the guest to extend on the current room else the system will ask the guest to make other reservation for other room available in current condition ) * on the case the system send notification and the guest just cancel the system send notification to the staff members to allow them to ask face to face wit the guest |

**Use case description**

**Guests:**

1. Make Reservation: Guests can make a reservation for a room in the hotel, specifying their desired check-in and check-out dates, room preferences, and any additional requirements.

2. Check Room Availability: Guests can check the availability of rooms for their desired dates, allowing them to choose an available room that meets their preferences.

3. Update Reservation: Guests can modify their existing reservation by changing the check-in or check-out dates, room type, or other details associated with their reservation.

4. Cancel Reservation: Guests can cancel their reservation if they no longer require the room, and the system updates the availability of the room accordingly.

5. Manage Profile: Guests can manage their profile information, including personal details, contact information, and preferences.

6. View own Booking: Guests can view the details of their current or past bookings, including reservation dates, room type, and any additional services requested.

7. Print Booking: Guests can generate a printable version of their booking confirmation, which includes all the relevant details of the reservation.

8. Issue Room Key: Guests can request a room key upon check-in, and the system notifies the receptionist to issue the key for smooth access to their assigned room.

9. Process Payment: Guests can make payment for their reservation using their preferred payment method, and the system securely processes the payment.

10. Request Checkout: Guests can request a checkout from the hotel, notifying the receptionist and initiating the checkout process.

11. Contact Servant: Guests can communicate with the hotel staff for specific requests or assistance during their stay, facilitating direct communication with designated staff members.

12. Provide Feedback: Guests can provide feedback on their experience with the hotel, sharing opinions, suggestions, or complaints to help improve the quality of service.

13. Extend Reservation: The guest requests to extend their reservation.

15. Order Food: Guests can view the hotel's food menu, place orders, and make payment for their food orders,

**Receptionist:**

1. Make Reservation: Receptionists can make reservations on behalf of guests using the manual system.

2. Update Reservation: Receptionists can update existing reservations based on guest requests or changes.

3. Cancel Reservation: Receptionists can cancel reservations as requested by guests, updating the availability of rooms accordingly.

4. Track Reservation: Receptionists can track and monitor the status of reservations, ensuring accurate and up-to-date information.

5. View Room Availability: Receptionists can view the availability of rooms for specific dates to assist guests in making reservations or modifications.

6. View notification from Guests: Receptionists can view and manage notification received from guests, ensuring timely responses and appropriate actions.

7. Interact with Users :Receptionist sends and receives messages from all users of the system.

8. View User Accounts: Receptionists can access and view guest accounts to assist with reservation-related queries.

9. get Notification from staff members of Successful Guest Checkout: The staff notifies the receptionist when the staff successfully checks the room status owend by the guest so if all things are ok the receptionist will allow the guest to leave the room, allowing them to update the room status and prepare for the next guest.

10. get notification from Guest during Check-in: The guest notifies the receptionist there arrival, enabling them to provide necessary assistance and complete the check-in process.

11. Check-in Guest: Receptionists can check-in guests, verifying their identity, providing room keys, and ensuring a smooth arrival experience.

12. Mark Room Status during Guest Check-in: Receptionists can update the room status as guests check in, indicating that the room is occupied.

13. View Account: Receptionists can access and view guests information, including personal details and work-related settings.

14. Communicate with Specific Guest: Receptionists can communicate directly with a specific guest to address their inquiries, requests, or concerns.

Staff Members:

1. Get Notification of Guest needs Checkout: Staff members receive notifications when a guest needs checks out, allowing them to prepare the room. checking the room is ok no damage by the guest is there if so the staff member will notify the receptionist to facilitate the checkout process further to end.

2.Notify Receptionist of Guest Checkout : Staff members notify the receptionist when a guest checks out, ensuring accurate record-keeping and room availability updates all things are ok with the room so the guest can leave the hotel.

3. Request Maintenance: Staff members can request maintenance services for repairs or improvements in guest rooms or hotel facilities.

4. Notification from the guest to Staff Members of Successful Payment for Other Services: Staff members receive notifications when guests successfully make payments for additional services, ensuring proper service delivery.

5. Notify Staff Members of Guest Food Order: Staff members receive notifications when guests place food orders, allowing them to prepare and deliver the orders promptly.

6. interact with users: Staff members can communicate with the receptionist, manager, and guests to address inquiries, provide information, or coordinate services.

7. Mark Room Status during Checkout: Staff members update the room status as guests check out, indicating that the room is vacant and ready for cleaning and preparation.

8. View Account: Staff members can access and guest account information, including personal details and work-related settings.

Manager:

1. Create Account and Allocate Roles for Servant Users: The manager can create user accounts for servant users and assign them specific roles and access privileges within the system.

2. Manage Account: The manager can manage all user account (add delete modify and disable user account)

3. View Reports Analyzed by the System: The manager can access and view reports generated by the system, providing insights into hotel performance, occupancy rates, revenue, and other key metrics.

4. Add Room: The manager can add new rooms to the hotel's inventory, specifying details such as room type, amenities, and pricing.

5. Update Room Details: The manager can update the details of existing rooms, such as room type, amenities, or pricing, to reflect any changes or improvements.

6. Remove Room: The manager can remove rooms from the hotel's inventory if they are no longer available or being used.

7. View Account: The manager can access and view all other users account information (profile), including personal details and administrative settings.

8. View Booking Information: The manager can access and view booking information, including reservations, guest details, and room allocations, to ensure smooth operations and guest satisfaction.

9. Manage Food Menu: The manager can manage the hotel's food menu, including adding new dishes, updating prices, or removing items as needed.

Maintenance Group:

1. Receive Maintenance Requests: The maintenance group receives requests for maintenance services, such as repairs or improvements in guest rooms or hotel facilities, and takes appropriate action to address them.

2. Request Materials from the Manager: The maintenance group can request materials or supplies needed for maintenance tasks from the manager, ensuring the availability of necessary resources.

CAPTCHA System:

1. Verify User: The CAPTCHA system verifies the authenticity of users during registration or login processes, preventing automated bots or unauthorized access to the system.

Google Maps:

1. Track Hotel Location: The system integrates with Google Maps to track and display the location of the hotel, providing accurate directions and location information to guests or staff members.

System:

1 Notify Guest for Reservation Extension

2 Check Room Availability for Extension

3 Notify Guest of Extension Confirmation

4 Notify Guest of Other Room Options

5 Notify Staff of Checkout Request

6 Notify Guest of checkout Confirmation

**Relations defined**

Make Reservation:

Includes: Update Reservation, Cancel Reservation, Process Payment

Extends: Check Room Availability, Notify Receptionist of Guest Check-in

Requires: User Login

Check Room Availability:

Extends: Make Reservation

Requires: User Login

Update Reservation:

Included by: Make Reservation

Requires: User Login

Cancel Reservation:

Included by: Make Reservation

Requires: User Login

Manage Profile:

Included by: Make Reservation, Update Reservation

Requires: User Login

View Booking:

Included by: Make Reservation, Update Reservation, Cancel Reservation

Requires: User Login

Print Booking:

Included by: Make Reservation, Update Reservation, Cancel Reservation

Requires: User Login

Issue Room Key:

Extends: Make Reservation

Included by: Notify Receptionist of Guest Check-in

Requires: User Login

Process Payment:

Included by: Make Reservation

Requires: User Login

Request Checkout:

Included by: Make Reservation, View Booking

Extends: Notify Receptionist of Successful Guest Checkout

Requires: User Login

Contact Servant:

Included by: Make Reservation, View Booking, Request Checkout

Extends: Notify Receptionist of Guest Checkout, Notify Receptionist of Successful Guest Checkout

Requires: User Login

Provide Feedback:

Included by: Make Reservation, View Booking, Request Checkout

Requires: User Login

Communicate with Staff:

Included by: Make Reservation, View Booking, Request Checkout

Requires: User Login

Extend Reservation:

Included by: Make Reservation, View Booking

Requires: User Login

Order and Pay for Food:

Included by: Make Reservation, View Booking, Request Checkout

Extends: Pay for Additional Services

Requires: User Login

Pay for Additional Services:

Included by: Make Reservation, View Booking, Request Checkout

Requires: User Login

Notify Receptionist of Guest Checkout:

Extends: Request Checkout

Included by: Contact Servant

Requires: User Login

Notify Receptionist of Successful Guest Checkout:

Included by: Request Checkout

Requires: User Login

Notify Staff Members of Guest Checkout:

Included by: Request Checkout

Requires: User Login

Notify Staff Members of Successful Payment for Other Services:

Included by: Pay for Additional Services

Requires: User Login

Notify Staff Members of Guest Food Order:

Included by: Order and Pay for Food

Requires: User Login

Notify Receptionist of Guest Check-in:

Included by: Issue Room Key

Requires: User Login

Mark Room Status during Guest Check-in:

Included by: Issue Room Key

Requires: User Login

Mark Room Status during Checkout:

Included by: Request Checkout

Requires: User Login

View Room Availability:

Extends: Check Room Availability

Requires: User Login

View Requests from Guests:

Included by: Contact Servant

Requires: User Login

View User Accounts:

Included by: Manage Profile

Requires: User Login

View Account:

Included by: Manage Profile, View Booking, Communicate with Staff

Extends: Notify Receptionist of Guest Check-in, Notify Receptionist of Successful Guest Checkout

Requires: User Login

Create Account and Allocate Roles for Servant Users:

Included by: Manage Account

Requires: User Login

Manage Account:

Included by: Create Account and Allocate Roles for Servant Users

Requires: User Login

View Reports Analyzed by the System:

Included by: Manage Account

Requires: User Login

Add Room:

Included by: Manage Account

Requires: User Login

Update Room Details:

Included by: Manage Account

Requires: User Login

Remove Room:

Included by: Manage Account

Requires: User Login

Manage Food Menu:

Included by: Manage Account

Requires: User Login

Receive Maintenance Requests:

Included by: Request Maintenance

Requires: User Login

Request Materials for Manager:

Included by: Receive Maintenance Requests

Requires: User Login38. Verify User:

Included by: Make Reservation, Manage Profile

Requires: User Login

Track Hotel Location:

None

Send Guest Notifications:

Included by: Make Reservation, Update Reservation, Cancel Reservation, Request Checkout, Contact Servant, Provide Feedback, Communicate with Staff, Extend Reservation, Order and Pay for Food, Pay for Additional Services

Requires: User Login

Send Staff Notifications:

Included by: Notify Receptionist of Guest Checkout, Notify Receptionist of Successful Guest Checkout, Notify Staff Members of Guest Checkout, Notify Staff Members of Successful Payment for Other Services, Notify Staff Members of Guest Food Order, Notify Receptionist of Guest Check-in, Mark Room Status during Guest Check-in, Mark Room Status during Checkout

Requires: User Login