

Hotel Management System Requirements Documentation

By : Lukas Hamm, Mustafa Abrams, Kaleo Chase

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Customer Problems Statements & System Requirements

Problem Statement:

A hotel is almost like a living breathing organism. You have the front desk staff and managers who work 24/7 to help guests, the guests who are the hotel's customers, and other staff that help the hotel run to perfection. At every hotel there are a certain number of rooms available, each room pertaining to a different room type. The room types vary in range, but the number of rooms does not. Customers place reservations for an allotted amount of time with whatever specified room type they'd like, if that room type happens to be available at the time. Once the customer has stayed for their reservation the customer pays for their stay and leaves the hotel. This opens the room again making it available for another patron to use.

Glossary of Terms:

- **Guest** – a person who stays at the hotel and uses its services; can have a booking or not
- **Reservation** – an arrangement made in advanced or day of by a guest to secure a room for a certain period of time; includes different room types and services
- **Check in** – the process of registering a guest into the hotel system when they arrive
- **Check out** - the process of ending a guest's stay; normally includes settling payment and return of room keys
- **Room type** - category of rooms offered by the hotel
- **Front desk staff** – employees responsible for assisting guests with check in, check out, and guest inquiries

- **Room availability** – status of the room either being booked or vacant; used to determine if a guest can be checked into a room
- **Payment methods** – the option for guests to either pay with a debit/credit card for their stay
- **Guest profile** – stored record of a guest's personal information, preferences, history, and payment information
- **Cancellation** – process of voiding a stay before a guest arrives; maybe subject to a cancellation fee

User Interface Requirements:

No.	Priority Weight	Description
GuestTracker	High	Dashboard design for an overview, Guest list with details like name, room #, etc.
RoomType	High	Dropdown menu to let employees select from our 4 options
ReserverPro	High	Buttons next to guest name that allow for easy check-in/check-out from room
PaymentGateway	High	Ability to add payment to guest profile/for reservations

GuestProfile	Medium	Allows employees to update guests profiles at any time; Basic text box changes and saves it
EmployeeAdd	Medium	Allows managers to add/delete employees; Thinking large buttons for this
AvailabilityMatrix	High	Shows a monthly or weekly view with room availability (red = booked, green = available)
ServiceReq	Low	Allows guests let employees to know what they want during booking or at check-in; Will be added onto the current reservation or guest profile
GuestMax	High	Display a message if the guest limit has been reached.

Functional Requirements:

No.	Priority Weight	Description
GuestTracker	High	The management system should be able to have up to 50 guests checked into rooms
RoomType	High	The four different types of rooms are single queen, single king, double queen, double king
ReserverPro	High	The system should allow for booking, check-in, and check-out functionalities
PaymentGateway	High	The system should be able to process payments, only credit card/debit card allowed (NO CASH!)
GuestProfile	Medium	The system should store guest details (i.e. name, credit card details) and preferences for future bookings
EmployeeAdd	Medium	The system should allow managers to add/delete employees

AvailabilityMatrix	High	The system should provide a real-time view of room availability
ServiceReq	Low	The system should have the ability to add information about what the guest might ask for to their reservation
GuestMax	High	The system should not allow more than 50 guests at a time to be checked in.

Nonfunctional Requirements:

Usability: needed to ensure staff can keep reservations up to date and manage reservation data easily. It is also important to be able to access what is reserved to prevent double bookings.

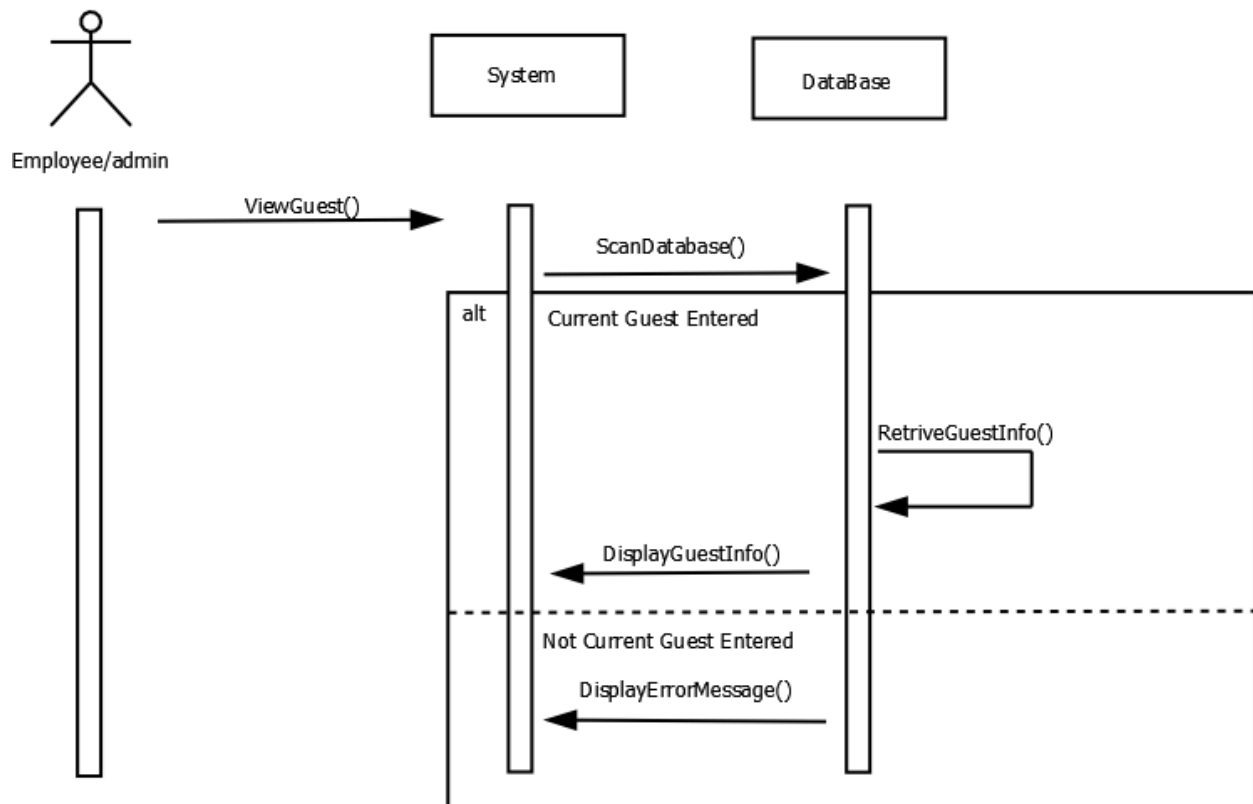
Reliability: The system needs to be stable in order to obtain booking information consistently. Also needed so that reservation information is input correctly, server or human error can cause major issues pertaining to peoples' reservations.

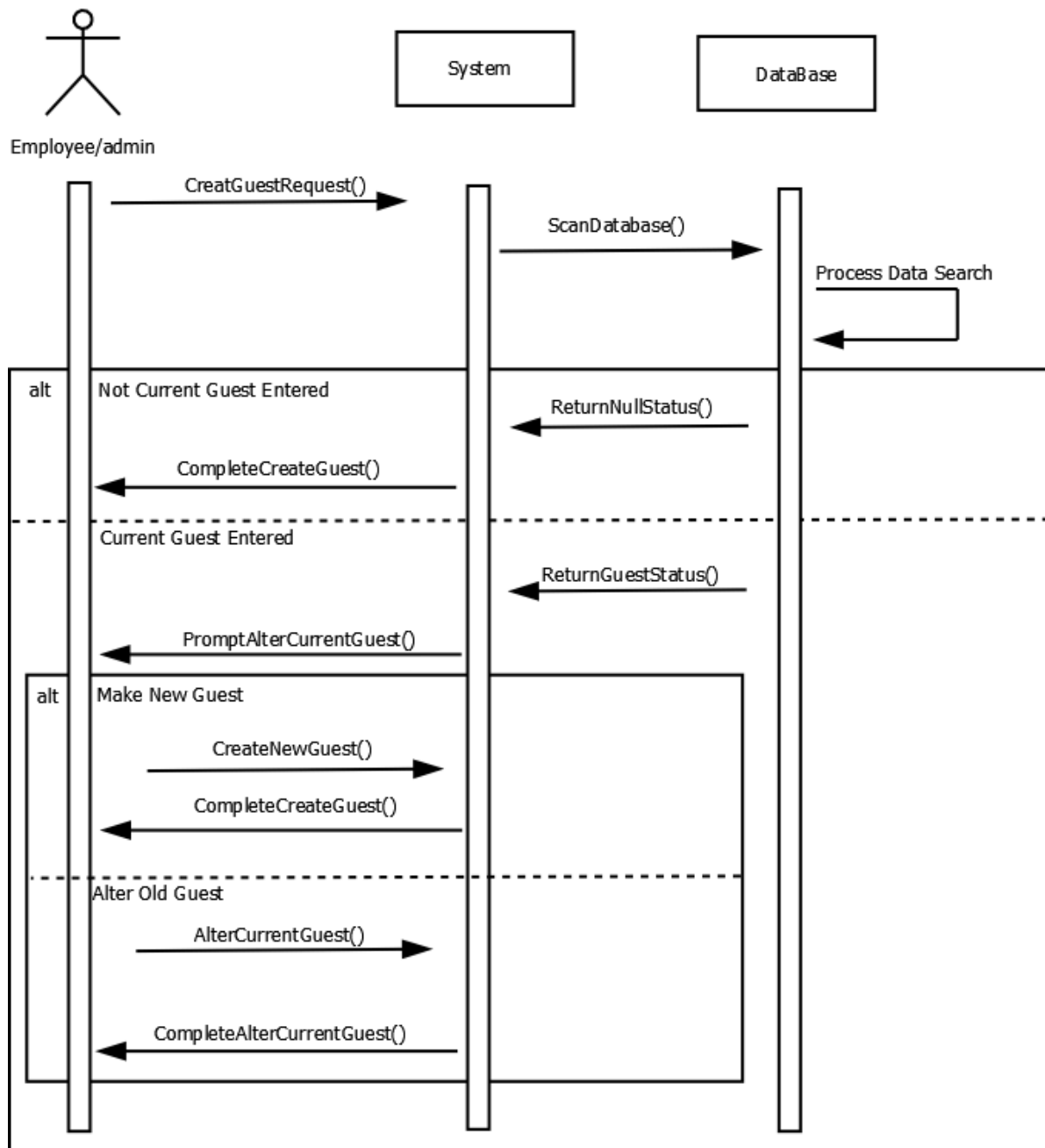
Performance: needed for the same reasons as usability, however the availability/accuracy of the booking information is more important compared to the speed/efficiency employees can update booking information.

Functionality: Capability reusability and security are not major issues pertaining to reservation info. However, still has some merit needing to protect sensitive customer data such as card information.

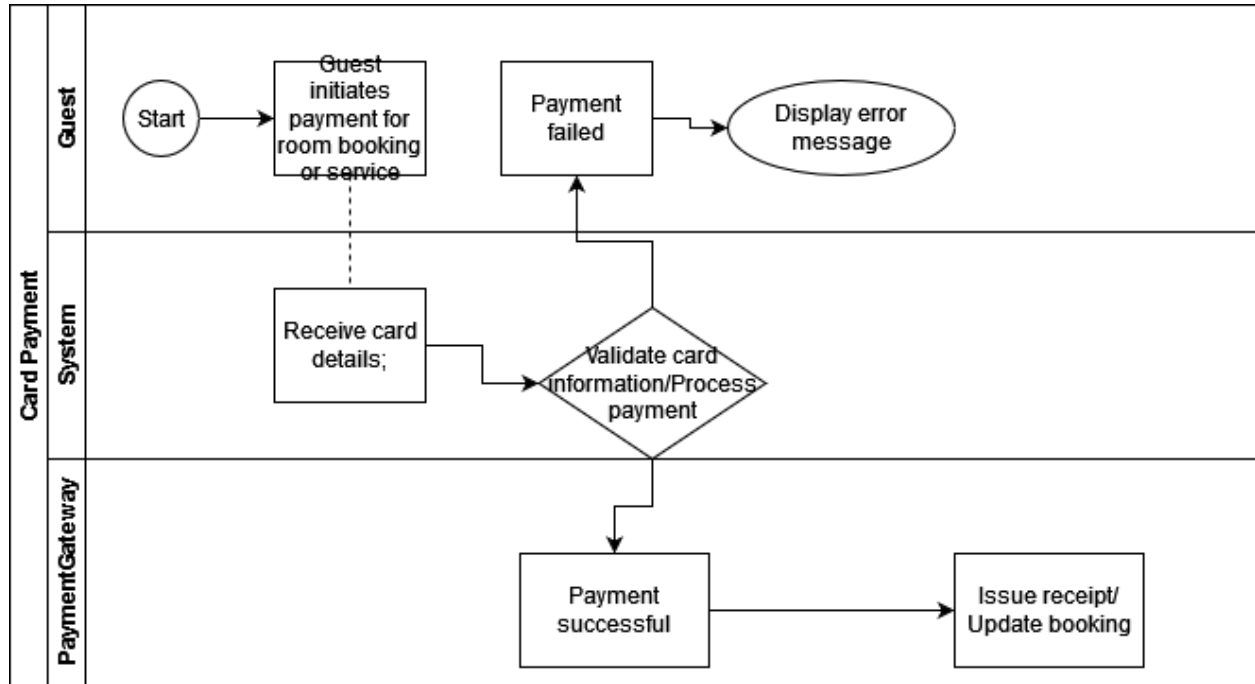
Supportability: Needed if the software ever needs slight updates. Whether it is to determine pricing, adding or removing room types, or altering the availability of requested services.

System Sequence Diagram :





Activity Diagram:



User Interface Specification:

Usage Scenario	Navigation	Clicks	Keystrokes
Add/delete employee	Homepage, add/delete employee, confirmation	≤5	≤75
Searching guests	Homepage, search bar, search button, search results	≤3	≤25
Viewing Guest Info	Homepage, search bar, search button, search results, guest name	≤5	≤75
Update Room Types	Homepage, update room type, adjust current room # and type, update room information	≤5	≤25
Add/Delete Reservation	Homepage, guest search, reservation confirmation, add/delete reservation	≤10	≤75

User Effort Estimations:

Mustafa Abrams

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Module 7 - User Interface Specification

User Interface Specification

- Select Use Cases:

1. Add/Delete Employee (Manager)

The image displays two wireframe mockups of a user interface for managing employees. Both mockups are titled 'Add/Delete Employee (Manager)'.

The top mockup shows a form with the following fields and buttons:

- Employee Name: A text input field.
- Employee ID: A text input field.
- Role: A dropdown menu with 'Select Role' as the placeholder.
- Buttons: A green button labeled 'Add Employee' and a red button labeled 'Delete Employee'.

The bottom mockup is a more detailed version of the same form, including a confirmation message at the bottom: 'Employee successfully added/deleted'.

Add/Delete Employee (Manager):

- Form fields for entering the employee name, ID, and role.
- Buttons for adding and deleting employees.
- Confirmation message after actions.

2. Search Guests (Front Desk Staff)

Search Guests (Front Desk Staff)

Enter Guest Name or Reservation Number

Search

search Guests (Front Desk Staff):

- Search bar to enter guest name or reservation number.
- Displays search results in a table format with guest details.
- When a result is selected, guest info is shown in a read-only format.

Search Guests (Front Desk Staff)

rick

Search

Guest Name	Reservation Number	Check-in Date	Check-out Date	Room Number
John Doe	123456	2024-10-22	2024-10-25	101
Jane Smith	654321	2024-10-21	2024-10-24	202

3. View Guest Info (Manager and Front Desk Staff):

- After selecting a guest from the search, their details are displayed for viewing only.

View Guest Info

Guest Name:
John Doe

Check-in Date:
2024-10-22

Check-out Date:
2024-10-25

Room Number:
101

Special Requests:
None

4. Update Room Types (Manager):

- A form for updating room types, sizes, services available, and price.
- Confirmation after saving.

Update Room Types (Manager)

Room Type:

2024

Room Size (sq ft):

123

Services Available:

3123

Price:

3020

Save

5.Add/Delete Reservation (Manager and Front Desk Staff):

- A form to add or delete a reservation with guest details and dates.
- Buttons for both actions, with alerts after submission.

Add/Delete Reservation (Manager and Front Desk Staff)

Guest Name:

Guest

Room Selection:

Single

Check-in Date:

18/11/2024

Check-out Date:

18/11/2024

Add Reservation

Delete Reservation

1. Add/Delete Employee (Manager)

- A form with the following input fields:
 - **Employee Name** (text box)
 - **Employee ID** (text box)
 - **Role** (dropdown or text box)
 - Buttons:
 - **Add Employee**
 - **Delete Employee**

The layout can be simple, with fields aligned vertically and buttons below the input fields. After submitting, the system should display a confirmation message like "Employee successfully added" or "Employee deleted."

2. Search Guests (Front Desk Staff)

- A search bar at the top where the user can enter the guest's name or reservation number.
- A **Search** button next to the search bar.
- Results are displayed below in a table with columns like:
 - **Guest Name**
 - **Reservation Number**
 - **Check-in/Check-out Dates**
 - **Room Number**

3. View Guest Info (Manager and Front Desk Staff)

- Once a guest is selected from the search results, a detailed view appears with fields like:
 - **Guest Name**
 - **Check-in Date**
 - **Check-out Date**
 - **Room Number**
 - **Special Requests** (if any)

Information would be displayed in read-only format for viewing purposes.

4. Update Room Types (Manager)

- A form with the following input fields:
 - **Room Type** (e.g., Single, Double, Suite)
 - **Room Size** (text field for square footage)
 - **Services Available** (e.g., Wi-Fi, breakfast included)
 - **Price** (numeric input)
 - A **Save** button to update the room type information.

5. Add/Delete Reservation (Manager and Front Desk Staff)

- A form with fields to add or delete a reservation:
 - **Guest Name** (text field)
 - **Room Selection** (dropdown)
 - **Check-in Date** (calendar input)
 - **Check-out Date** (calendar input)
 - Buttons:
 - **Add Reservation**
 - **Delete Reservation**

The form will validate the data and show confirmation after successful actions.

Plan of Work:

Week 1: Set up what my front-end, back-end, and database will be used ✓

Week 2: Set up environment, connect all software together. Figure out the framework for the whole system. ✓

Week 3: Creation of a log-in page for managers and front desk staff.

Week 4: Creation of registration for new employees to add to the system .

Week 5: Creation of features such as add, modify, remove reservations from the system.

Week 6: Implementation of features into the system

Week 7: Same as Week 6.

Week 8: Verify that all implemented features work in unison.

Week 9: Test user (manager and front desk staff) authorization and registration

Week 10: Creation of features that allow more information from guests within the system (i.e. address, credit card information, phone number, email address).

Week 11: Implementation of said features from Week 10.

Week 12: Creation of features for billing, kind of adding onto the features from prior implementations.

Week 13: Same as week 12.

Week 14: Verifying that all implemented features in the second sprint work well. Debugging and performance testing as well.

Week 15: Record demonstration and progress made for final presentation.