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SOFTWARE REQUIREMENT SPECIFICATION DOCUMENT

HOTEL MANAGEMENT SYSTEM

- * **Problem Statement:** A Hotel Management System is designed to automate the tasks such as room booking, guest check-in/check-out, billing and managing room services and housekeeping.
- * **Scope:** It includes managing hotel services, live tracking of availability of rooms, it also provides a user-friendly interface for both guests & staff. It also includes hotel performances through guests feedback. and has profile of the guests.
- * **Functional requirements:**
 - **Room Booking & Reservation:** Allow customers to search for rooms based on dates, room type and their budgets.
 - **Customer Profile Management:** store guest information history of booking and provide discounts.
 - **Room Service and Housekeeping:** Allow guests to request for room service.
 - **Billing and Payment:** Support billing directly when they view the hotel and allow various payment methods.
 - **Notifications:** Provide notifications for ^{guest} staff regarding booking and notifications for staff regarding payment.
- * **Non Functional Requirements**
 - **Usability:** The interface should be user-friendly.
 - **Security:** The personal data of the guests must be maintained safely and should not be leaked.
 - **Performance:** System should not crash if large number of users operate at the same time.

- Maintainability: System should be easily easy to be maintained and updates must be handled easily.
- Reliability: System should be reliable with minimum downtime.

* Domain Requirements

- User roles:

Admin: Responsible for managing the payment, handling registrations of tenants etc

Tenant: Must be able to manage their profiles, bookings.

- Data requirements:

Room Data: The data of available and filled rooms, type of room must be maintained.

Tenant Data: Profile of the tenants must be updated.

- * Overview: The HMS is a software solution to automate tasks like booking, billing, and housekeeping. It integrates various hotel operations to enhance service quality and operational efficiency.

* General Description:

- Room Booking: Real-time availability ~~for~~ and booking
- Billing Automation: Simplifies invoicing and payments
- Housekeeping Management: Tracks room status & schedules
- Reporting: Provides operational data for management

Hotel Management System continuation

6. Interface Requirements:

- UI for staff & guests: Web/mobile interface for operations
- API integration: For payment gateways and 3rd party services
- Database: Stores guest, billing, and reservation data
- Internal Messaging: Staff communication tool for task coordination

7. Performance requirements:

- Response Time: Bookings & payments within 1 sec
- Concurrent Users: Support up to 500 users simultaneously
- Error Rate: Max error rate 0.01%
- Sys Uptime: 99% availability

8. Design Constraints

- Hardware Compatibility: Integrates with existing hotel hardware (eg POS)
- Security: Compliance with industry standards (PCI-DSS)
- Software Integration: Must work with existing hotel management software

10) Schedule and Budget

- Development Time: 6 months
- Total Costs: \$ 5,000, covering development, testing, and maintenance