Republic of the Philippines

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**Hotel De Luna: Hotel Management System**

**BUSINESS CASE AND SYSTEM ARCHITECTURE**

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**Project Name:** Hotel de Luna

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| 1. **Introduction/Background**   The Hotel De Luna Management System was designed and developed in response to the industry's increasing demand for a flexible and effective management system. This was done in order to improve guest experience, and develop a robust system for walk-in and on-call transactions.  It was done in recognition of the hotel businesses confront in running their daily operations. It was done in recognition of the difficulties that businesses confront in running their daily operations. Hotels may increase income streams, decrease errors, and improve operational efficiency to achieve a competitive advantage with the help of the Hotel De Luna Management System.  It gives hotel employees the freedom to provide great customer service and gives management insightful information for tactical decision-making. |
| **2.0 Objective**  Hotel De Luna main objective is to develop a hotel management system that enhances guest experience, streamlines operations, and increases profitability. The specific objectives are as follows:  1. The ultimate hotel management system is a Software that makes hotel reservations and handles administrative tasks is the pinnacle of hotel management systems.  2 From Check-in to Check-out to Intelligent Reporting, Easily manage every aspect of your hotel with hotel management system.  3. Guest can conveniently book/reserve a room with just a call without waiting in the line of the Receptionist  4. Hotel management system aims to create a well-integrated and efficient environment that enhances the overall guest experience while optimizing internal processes. |

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| **3.0 Current Situation and Problem/Opportunity Statement**  Creating a Hotel Management System for Hotel De Luna present challenges in planning and implementing a sophisticated system architecture that is well-structured and scalable. Understanding the hotel's individual requirements is necessary, as is integrating multiple modules such as rooms management, guest check-in/check-out, inventory management, billing, and reporting.  Another problem may be properly managing data, which includes guest information, bookings, and financial transactions. It is critical to create a strong database schema and implement efficient data storage and retrieval procedures while maintaining data security and integrity  The hotel can acquire significant insights into consumer behavior, preferences, and trends by analyzing data from guest transactions, bookings, and other activities. This information can be utilized to make data-driven business choices, enhance marketing initiatives, and tailor guest experiences. |

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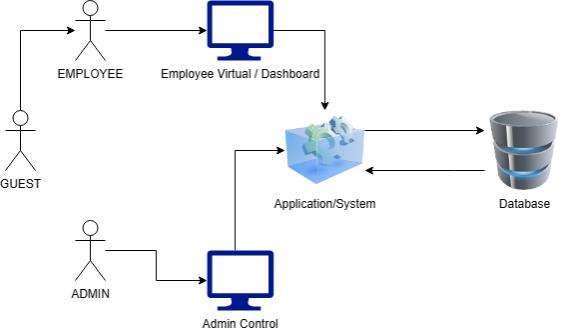
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**System Architecture**

**Figure 1.** System Architecture of

Hotel De Luna System

**Fig.1** shows the system architecture. The following are the essential elements of the Hotel De Luna Management System architecture:

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A. Front-end Interface

The user-facing part of the system that makes it possible for hotel employees to communicate with it naturally. For room reservations and other system functions, it offers an intuitive user interface.

B. Back-end Interface

Servers and databases make up the back-end infrastructure, which is the foundation of the system. It manages data storage, including accounting systems, and performs sophisticated functions like inventory management.

C. Security Framework

To safeguard critical visitors and financial information, the system has robust security procedures in place. Login methods and data access restrictions are implemented to preserve data integrity and guarantee adherence to industry norms and laws.

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| **4.0 System Analysis/Design**  **•**Login System:  It helps protect the system from unauthorized access, ensure data privacy, and maintain user accountability.  •Room Reservations:  - Guests can select their preferred room type, check-in and check-out dates, and the number of guests.  - After selecting a room, guests can proceed to make a reservation by providing their contact information and payment details.  - Rooms availability depends on the given colors green if it’s available, red when exceed, orange for ongoing and reserved for yellow.  •Guest Management:  - The system will store guest profiles containing their personal information (name, contact details).    •Check-in/Check-out:  - Guests arrive at the hotel and proceed to the front desk for check-in.  - The system displays the guest's reservation details and verifies their identity through their name or reservation number.  - Upon verification, the system assigns an available room to the guest and generates a room key card.  - During check-out, the system calculates the final bill, including room charges and any additional expenses incurred during the stay.  - Guests can settle the payment using various methods, such as cash and credit cards.  •Billing and Invoicing:  - The system generates accurate bills based on the guest's stay duration, room rate, and additional services used.    •Admin Access:   * The hotel management system’s settings, including those for adding and removing people, Employees account log and Guests history can be managed and configured with administrator access.     **5.0 Scope and Limitations**  The scope of this project is to develop a hotel management system that does not require an internet connection. The system will allow the hotel staff to manage room bookings, check-in and check-out, billing, inventory, and reports. Creating our hotel management system helps for efficiency to manage and book reservation processes. It is a good benefits for our guest and for us by saving a lot of time and less hustle. It has more effective staff coordination and better overall operational performance.  For limitations in creating hotel management system may include the following: no online booking or payment options, no integration with external services or devices, no support for multiple languages or currencies, no security or encryption features, and no user feedback or rating features, lack of time before the due date, reliance on stable internet connectivity and also not enough skills or knowledge about the Hotel management system. |
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