

Original Introduction Section

Chapter 01: Introduction

1. Introduction

In Sri Lanka, the hotel sector is a significant but complex industry. This intricacy has made it more difficult for internal employees to manage the hotels. However, manual processes and human interaction were maximized by conventional hotel management systems, which led to a number of negative effects.

Due to human error, data security concerns, and the difficulty of time management, accuracy could not be assured in conventional hotel management systems.

Therefore, developing an application to combat these issues while minimizing human error and guaranteeing data security is essential. The proposed hotel management system has been created to make management tasks easier for the internal staff. With capabilities like automation of many tasks, it aids in the efficient and effective management of hotels with web-based technology.

2. Problem in Brief

There are numerous problems that are affecting the current manual system, such as using reservation books and other documents to make room reservations and banquet operations. As a result of these manual methods, room status monitoring has become impossible, and the hotel management has referred to books and keys manually, to filter the available or unavailable rooms. Nevertheless, generating reports by an accountant required a lot of time to refer to a vast number of documents. The issues with the current traditional system that the proposed hotel management web application intends to identify are listed below:

- Record maintenance issues
- Time-consuming
- Data Editing
- Data insecurity
- Data redundancy
- Data Inconsistency

Record maintenance issues:

Maintaining data records in the system is difficult because all records must be entered into the register or prospective record books. The record books or files holding all the data may get damaged, wear out, become torn, or even have files disappear.

Time Consuming:

Each guest's entry and exit from the hotel must be noted in the register manually, which is challenging since it consumes a lot of time. Additionally keeping backups for these manual databases can be a waste.

Data editing:

Data cannot be edited or changed once it has been manually entered. In case of a mistake, the administrator's attempt to delete it and rewrite it would make the entire register very unclear and unorganized. Error correction in manual methods is harder than in automated methods.

Data insecurity:

Manual hotel record keeping might easily cause loss, theft, or misplacement of data. The manual registers and books as the database have low security since it is easy to access and destroy those media. This manual database has a possibility of being misplaced, torn, or taken by an unauthorized person, which could result in the file's destruction.

Data Redundancy:

Due to the maintenance of a high number of registers and having no efficient method to filter data there is a prominent level of data redundancy, as stated in the current framework. The same information, for instance, may be recorded multiple times.

Data Inconsistency:

The problem arises when the recorded data is changed or removed, and the same information is written in multiple locations.

3. Aim and Objectives

3.1. Aim

The aim of this project is to deliver solutions to the challenges and to assist the hotel staff in managing the hotel efficiently and effectively.

3.2. Objectives

1. To achieve the above aim, the following objectives will be achieved.
2. To computerize record keeping process and database, eliminating manual recording, for easier access to data.
3. To provide data security by implementing different access levels for different users.
4. To reduce the occurrence of fraud by monitoring and tracking user interactions with the system.
5. To manage financial activities effectively by reducing human errors in calculation and duplication of transactions
6. To reduce the time consumption of the hotel staff using filters for easy search.
7. To automate hotel operations such as housekeeper rosters, room availability status handling, and customer notification handling.

4. Proposed Solution

The proposed solution is a hotel management web application for the internal staff to handle the internal management operations.

Reservations and administrative management at hotels can be facilitated by this proposed solution. It has the ability to manage front-desk operations, reservation management, room allocation, housekeeping, payment processing, automated task allocation, automatic receipt generation, and finance management.

It is a corporate application that will be employed in hotels to handle customers and administrative tasks. It features modules for the hotel's front office, housekeeping, customer, and finance management departments, and it can manage all activities. It can manage hotel reservations, keep track of customer data such as check-in and check-out times, check availability of the rooms, change of room, automate employee task allocation, housekeeping, manage revenue, generate automated reports, generate final receipts, manage front-desk operations, and provide a quick system to assist customers in allocating services upon arrival.

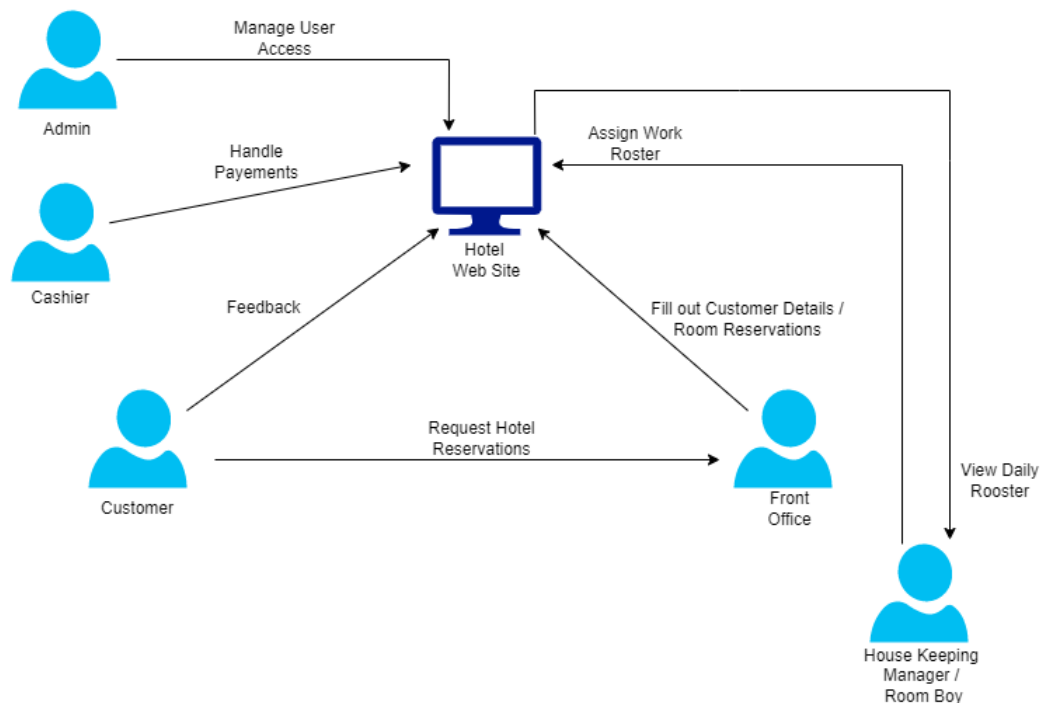


Figure 1: Proposed Solution Diagram

5. Nature of solution

Input-

- Customer details
- Payment details
- Hotel Reservations details
- Housekeeping details

Output-

- Digital payment receipts.
- Notifications on daily work rosters
- Reports

Process-

- Room Allocation
- Payment Processing
- Work Roster Creation
- User Access Handling
- Refund Handling
- Food Order Handling

Users

- Front office manager
- Receptionist
- Cashier
- Housekeeping manager
- Room boy
- Admin
- Custom

6. Structure of the Report

This report consists of a literature review consisting of a comparison among some existing solutions. Then approach of how we are developing this solution which includes the technologies, software, hardware, architecture that will be used. The analysis and design phase, and finally the implementation phase of the project.

7. Summary

This chapter covered the problem in brief that was addressed by the proposed solution, brief introduction of the proposed solution, Nature of the solution which included the input, output, processes and users, aim and the objective of the projects and finally the structure of the report. In the next chapter the literature review on existing technologies will be covered

Introduction – Revised Section

The Sri Lankan hotel industry makes a sizable contribution to the nation's economy, but because of its complexity, it has consistently failed internal employees to operate hotels effectively. Conventional hotel management systems rely on manual procedures and human interaction but have potential drawbacks such as potential human error, data security issues, and time management issues, which can reduce accuracy. A new hotel management system has been proposed to resolve these concerns and provide internal employees with a simple and effective tool to manage hotels. The proposed system uses web-based technology and automation to automate hotel management, leading to more efficient and precise operations. This report provides an overview of a proposed hotel management system, including its functionality, features, and design.

The manual system currently in use for hotel management, which relies on reservation books and other documents, has several drawbacks, including time consumption, record maintenance issues, unauthorized data manipulation, low data security, inability to edit entered data, redundancy, potential data loss or misplacement, and inconsistent data. In addition, the use of books and keys to filter available or unavailable rooms, and reports generated by accountants by referring to a large number of documents consumes a lot of time. The use of a hotel management web application can solve these problems by automating the procedure, cutting down on errors, and enhancing security.

This project aims to provide solutions to the problems faced by hotel employees in order to help them manage the hotel effectively and efficiently. The objectives are to computerize record-keeping, provide data security, reduce fraud, manage financial activities, reduce time consumption, and automate hotel operations. This will help eliminate manual recording, make data easier to access, lower human error rates, and streamline hotel operations for increased effectiveness.

The proposed solution is a hotel management web application to streamline hotel operations for internal employees to manage reservations, room assignments, housekeeping, and payment processing. It has modules for the front desk, housekeeping, administrator, receptionists, and financial management departments of the hotel. The software can control hotel bookings, monitor room availability, track customer information, automate task distribution, control housekeeping, produce automated reports, streamline front desk operations, and give customers a quick way to choose services when they arrive. This solution can boost productivity, cut down on mistakes, and provide better customer service.

This report analyzes the development of a hotel management solution and compares existing systems. It describes the approach taken, including selecting appropriate technologies, software, hardware, and architecture. It also examines the project's analysis and design phases and concludes by outlining the implementation phase and steps taken to create and implement the new system.