



# Department of Artificial Intelligence and Machine Learning

### LODGE FINANCE MANAGEMENT SYSTEM

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#### **Problem Statement and Motivation**

Developing a software solution to manage billing, income tracking, expense reporting and daily expenditure logging for the lodge business ensuring comprehensive financial oversight and efficiency.

### **Objectives**

- Streamline billing, income tracking, expense reporting, and daily expenditure logging to reduce manual workload and minimize errors.
- Provide real-time financial dashboards and detailed reports to give lodge managers a clear and up-to-date view of financial health.
- Advanced data analysis and visualization tools for insightful financial reports and trend identification.

#### **Abstract**

This project develops a comprehensive software solution for managing the financial operations of a lodge business. It automates customer billing, tracks income, reports expenses, and logs daily expenditures. Key features include detailed customer stay records, automated room cost calculations, and expense tracking. The system also incorporates data analysis and visualization tools to generate financial reports, calculate tax liabilities, and divide profits among partners. This solution aims to enhance financial transparency, improve operational efficiency, and support informed decision-making for lodge businesses.

# Introduction and Overview of the Project.

The Lodge Financial Management System is designed to enhance the financial operations of lodge businesses by streamlining billing, income tracking, expense reporting, and daily expenditure logging. This user-friendly and secure system automates financial processes, reducing manual errors and saving time. Key features include customer management, expense tracking, profit calculation, data analysis, and bill generation. By providing real-time financial insights and comprehensive reports, the system ensures financial transparency, supports informed decision-making, and enhances operational efficiency.

### **Existing System**

The current financial management system for the lodge business involves manual billing, income and expense tracking, and daily expenditure logging using basic tools like spreadsheets and handwritten receipts. Profit calculations and partner share distributions are performed manually, leading to frequent errors and inefficiencies. Customer and expense records are maintained separately, resulting in disorganized data and difficulty retrieving information. The system lacks advanced data analysis and visualization tools, limiting the ability to generate insightful financial reports and trends.

### Drawback of Existing System

The existing "Lodge Financial Management System" faces several drawbacks, including reliance on manual data entry, limited room types and pricing flexibility, basic expense tracking, lack of real-time analytics and reporting, no integration with external systems, limited scalability, no mobile access, and insufficient security measures. Additionally, the presentation of customer and expense data is text-based and not user-friendly.

### References.

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# **Thank You**