**HOTEL MANAGEMENT SYSTEM**

**A PROJECT REPORT**

**Submitted by**

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**NAME OF THE DEGREE**

***B tech***

**BRANCH OF STUDY**

**COMPUTER SCIENCE**



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**MONTH & YEAR**

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**DECLARATION**

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**CERTIFICATE**

This is to certify that the project work titled **“**Hotel Management System **''** is performed by NameShivanadReddy(USN:1RVU23CSE431),SuddepR(USN:1RVU23CSE477)**,**Sharanappa(1RVU23CSE$419),Vikranth Subramanyam(USN:1RVU23CSE538) a debonair students of Bachelor of Technology at the School of Computer Science and Engineering, RV university, Bengaluru in partial fulfillment for the award of degree Bachelor of Technology in Computer Science & Engineering , during the Academic year **2023-2024**.

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**ABSTRACT**

This report presents a comprehensive overview of the Hotel Management System, a software application designed to streamline the operations of hotel management. The system integrates various functions including room booking, customer management, staff management, and billing to enhance efficiency and customer service. The report covers the development process, tools and technologies used, implementation details, results, and future recommendations.

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**LIST OF ABBREVIATIONS**

|  |  |
| --- | --- |
| **Abbreviation** | **Explanation** |
| GUI  SQL  DBMS  API  UML | Graphical User Interface  Structured Query Language  Database Management System  Application Programming Interface  Unified Modeling Language |

1. **INTRODUCTION**

* The Hotel Management System is designed to simplify the complex process of managing hotel operations. It addresses the needs of both hotel staff and guests, providing a seamless experience for booking, billing, and customer service. The system replaces manual processes with automated ones, reducing errors and improving efficiency.

1. **TOOLS AND TECHNOLOGY USED**

HARDWARE & SOFTWARE REQUIREMENTS

* **Programming Language**: Java, Python
* **Database**: MySQL
* **Framework**: Spring Boot (for backend), Angular (for frontend)
* **Development Tools**: IntelliJ IDEA, Visual Studio Code
* **Version Control**: Git
* **Design Tools**: Adobe XD, UML

1. **IMPLEMENTATION**

The implementation of the Hotel Management System involved several key stages:

1. **Requirement Analysis**: Gathering and documenting functional and non-functional requirements.
2. **System Design**: Creating architecture, use case diagrams, class diagrams, and sequence diagrams.
3. **Database Design**: Developing the schema and setting up the database using MySQL.
4. **Frontend Development**: Designing and coding the user interface using Angular.
5. **Backend Development:** Implementing business logic and API endpoints using Spring Boot.
6. **Integration and Testing**: Integrating frontend and backend, and performing various testing methodologies to ensure functionality and performance.
7. **RESULT AND DISCUSSION**

The Hotel Management System successfully automates the core functions of hotel operations. Key results include:

* **Efficiency**: Significant reduction in time for booking and billing processes.
* **Accuracy**: Decrease in errors associated with manual entry.
* **User Satisfaction:** Positive feedback from users on the ease of use and responsiveness of the system.
* **Scalability**: The system is designed to handle increasing loads as the hotel grows.

However, some challenges were encountered, such as ensuring data security and managing concurrent user access, which were addressed by implementing robust security measures and optimizing database queries.

1. **CONCLUSION**

The Hotel Management System effectively meets the goals of automating hotel operations, enhancing efficiency, and improving customer service. The use of modern technologies and systematic implementation has resulted in a reliable and scalable solution. Future work could focus on adding more features like mobile app integration and advanced analytics.

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**APPENDIX**

GitHub Link: