

Case Study

ON

Hotel Reservation System

*NAME: Dev Taliyan*

*SECTION: 3(B)*

*UID: 24BCA10444*

*SUBJECT: Object Oriented Programming Language*

*SUBMITTED TO: Miss. Jyoti Rani*

**Introduction**

The Hotel Reservation System was developed to address the inefficiencies in manual hotel booking processes. Traditionally, hotels maintained paper-based or semi-digital systems which created challenges in managing large customer volumes, preventing double bookings, and optimizing room allocation. The system aims to automate room reservations, manage customer details, and streamline the booking experience for both hotel staff and guests.

**Business Problem**

Hotels faced the following challenges before adopting a reservation system:

* Managing reservations manually led to frequent booking errors and overbooking.
* Customer data management was cumbersome and error-prone.
* Payment processes were mostly offline, causing delays and reconciliation issues.
* Difficulty in providing real-time room availability and dynamic pricing.

**Solution**

To solve these issues, a computerized Hotel Reservation System was implemented with the following features:

* Centralized booking platform allowing real-time room availability checks and reservations.
* Secure storage of customer information such as personal details, payment info, and stay history.
* Automated confirmation and cancellation protocols to reduce no-shows and improve revenue management.
* Integrated payment gateways for hassle-free online transactions.
* User-friendly interfaces for hotel staff to manage check-ins, check-outs, and customer records efficiently.

**System Design**

* Users (guests or hotel staff) can search and book rooms based on availability.
* Customer data is handled securely through a database using C++ object-oriented management or web frameworks**.**
* The system supports editing, deleting, and querying reservations to provide full control over bookings.
* Generates billing and invoicing reports for transparent financial management.

**Benefits**

* Improved accuracy and speed of reservation processing.
* Enhanced customer satisfaction due to seamless booking experience.
* Increased revenue with optimized room allocations and reduced manual errors.
* Real-time data reporting and analytics for better business insights.

**Conclusion**

The Hotel Reservation System significantly transformed hotel operations by digitizing the booking process and customer management. It provides an efficient, reliable, and scalable solution that meet modern hospitality industry's demands, improving both operational workflows and guest experiences.