ARTTIFAI TECH

MySQL

Project Idea: Hotel Booking System

Aim:

The aim of this internship is to provide students with practical experience in database management by designing and implementing a **Hotel Booking System using MySQL**. This project will help students understand how to manage hotel rooms, process bookings, and handle payments efficiently.

Objectives:

1. Understanding Database Management:

- Learn relational database concepts and SQL queries.

2. Room & Customer Management:

- Create tables for rooms, customers, and reservations.
- Store details like room type, price, availability, and customer details.

3. Booking & Reservation System:

- Allow customers to book rooms for specific dates.
- Prevent double bookings by checking availability.

4. Payment & Invoice Handling:

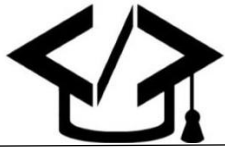- Store payment details and generate invoices for bookings.

5. Reports & Optimization:

- Generate reports on room occupancy, revenue, and customer bookings.
- Use stored procedures and indexing for optimized queries.

Expected Output:

By the end of the internship, students will develop a **fully functional MySQL-based Hotel Booking System** with:

✓ **A structured database** containing tables for rooms, customers, reservations, and payments.
✓ The ability to **add, update, and remove rooms dynamically**.
✓ A system where **customers can book rooms, check availability, and make payments**.

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✔ The database efficiently handles **room booking and payment processing** using **stored procedures and triggers**.

✔ SQL queries optimize **data retrieval** for **faster performance** and **better scalability**.

Sample Output:

- **Rooms Table**

Room ID	Room Type	Price per Night	Availability
101	Deluxe	5000	Available
102	Standard	3000	Booked
103	Suite	8000	Available
104	Standard	3000	Available

- **Customers Table**

Customer ID	Name	Contact	Email
1	Raj Malhotra	9876543210	raj@gmail.com
2	Ananya Sharma	7894561230	ananya@yahoo.com

- **Bookings Table**

Booking ID	Customer ID	Room ID	Check-In Date	Check-Out Date	Total Amount	Payment Status
1001	1	102	2025-04-01	2025-04-05	12,000	Paid
1002	2	103	2025-04-10	2025-04-15	40,000	Pending

- **Payments Table**

Payment ID	Booking ID	Amount Paid	Payment Method	Payment Date
5001	1001	12,000	Credit Card	2025-03-30
5002	1002	20,000	UPI	2025-04-08

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Note:

- The completed project must be uploaded to the student's own GitHub repository.
- The GitHub repository must be public for evaluation purposes.
- The repository link should be submitted via the Google Form:
  https://forms.gle/tNFMkX5wt343vpCo7