**Hotel Management System (A database project)**

Team members

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Our team project name is Hotel Management System.

**Objectives of the project: -**

To integrate reservation, billing, and services.

The following attributes, I have considered before designing the initial view of the database system:

1. CustomerID
2. ReservationID
3. Check\_in\_date
4. Check\_out\_date
5. Booking\_date
6. Room\_number
7. Room\_type
8. Room\_Price
9. ServiceID
10. Service\_name
11. Service\_date
12. Service\_cost
13. Service\_quantity
14. Payment\_method
15. Payment\_date
16. Customer\_name
17. Customer\_address
18. Customer\_phone\_number
19. Loyalty\_number
20. Satisfaction level

**Pain points of management of a hotel are as follows –**

1. The hotel has a different department like billing, room service, other services, reservations, loyalty card etc. and these departments don’t have an integrated system to know customer information/transactions at a single window.
2. Hotel is not able to properly understand customer purchase and services behavior over time.

With the help of this data model, we are trying to solve the above-mentioned problem by creating an integrated system to manage all services in the hotel. This will also help to understand customer behavior.

**Rules: -**

In one reservation customer can use none or multiple services

In one reservation customer can book one or multiple rooms

In one reservation is linked with only one customer

One reservation can have one or multiple billing

One customer will have none or one loyalty card

One customer can have one or multiple reservations

One room can be linked with one or multiple reservations (depends on check-in/check-out dates)

One billing can only belong to only one customer

One service can be used by none or multiple customers

One loyalty card can be linked to only one customer

**Business Requirements: -**

1. To ease booking by having real-time room availability information at booking counter/ another medium of the booking.
2. The centralized billing system in the hotel
3. To understand the customer behavior by using loyalty card information

We will use the ER model techniques to solve this problem. The tables are as follows: -

1. Customer
2. Reservations
3. Rooms
4. Billings
5. Services
6. Loyalty

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