

DMDD Project Group 6 - Hotel Management Database System

P2 : Database Design and Initial ERD

Background:

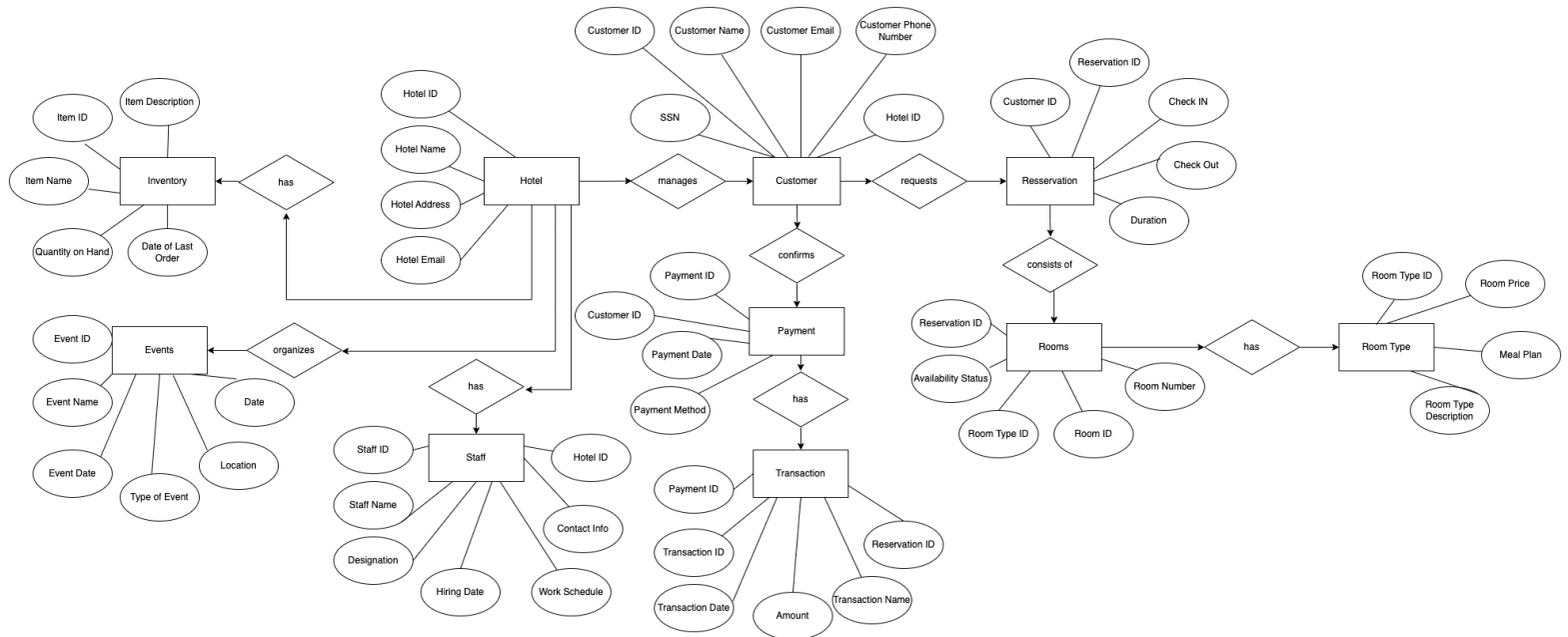
Hotels are one of the most prevalent and identifiable sort of companies in the hospitality sector. They permit visitors to rent certain rooms for a predetermined amount of time; they are frequently promoted towards tourists and business travelers. In addition, hotels frequently provide their visitors with a variety of extras including access to swimming pools, exercise centers, and free breakfast. A hotel database management system was created to streamline front desk office duties, increase management capabilities, and enhance customer and reservation experiences. A hotel may use the program to manage tasks like check-ins, check-outs, and reservation confirmations more efficiently and effectively.

Problem Addressed:

- Hotels use database systems for managing guest information, rooms, merchandise, and finances.
- Guest information management helps hotels offer tailored services and preserve customer loyalty.
- Room management capability enables hotels to oversee cleaning and maintenance, improve room allocation, and provide room upgrades.
- Inventory management capabilities help hotels keep track of and manage supplies, linens, and amenities.

- Database management systems assist hotels in managing financial operations, including billing and invoicing, revenue and cost tracking, and financial reporting.
- A database system is a vital tool for successful and efficient administration of hotel operations, enabling world-class guest experiences and monetary success.

ERD Diagram:



List of Entities:

1. Hotel
2. Customer
3. Reservation
4. Room
5. Room_Type
6. Payment
7. Transaction
8. Staff
9. Inventory
10. Events

Business Rules:

1. This model is primarily focused on a single hotel chain and its management. This template can be replicated and used by others too.
2. Hotel employees staff and give a designation to each of them. Every hotel can have 1 or many staff working for it.
3. Hotels can hold 1 or many events that can be provided as a complimentary package for the customers. So customers can directly have access to them once they have a reservation.
4. It also manages its inventory that is required for day today requirements.

5. Every customer makes a reservation for the rooms and is also able to select the room type for each one.
6. Each customer who has a payment confirmation will be served by the hotel and each payment can have multiple transactions.
7. Every reservation by the customer has a checkin and checkout information that is mandatory for the booking.
8. Customers have the facility to choose among the different options of the room type that is available.
9. Each room has its own meal plan and its price is fixed for it.