CSE202, Winter 2019, Fundamentals of Database Management Systems

Project Synopsis

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For this database management project, we will be implementing a hotel management system. It will organize various data to easily store, manage, update, and retrieve information such as rooms check-ins and check-outs, guests, etc.

The system will help the administrative staff and the executives of the hotel chain to keep track of company records effectively and efficiently. The hotel management system will mainly be accessed by type types of users: employees and guests. The employees will modify and update information and guests will access that information.

There will be six entities:

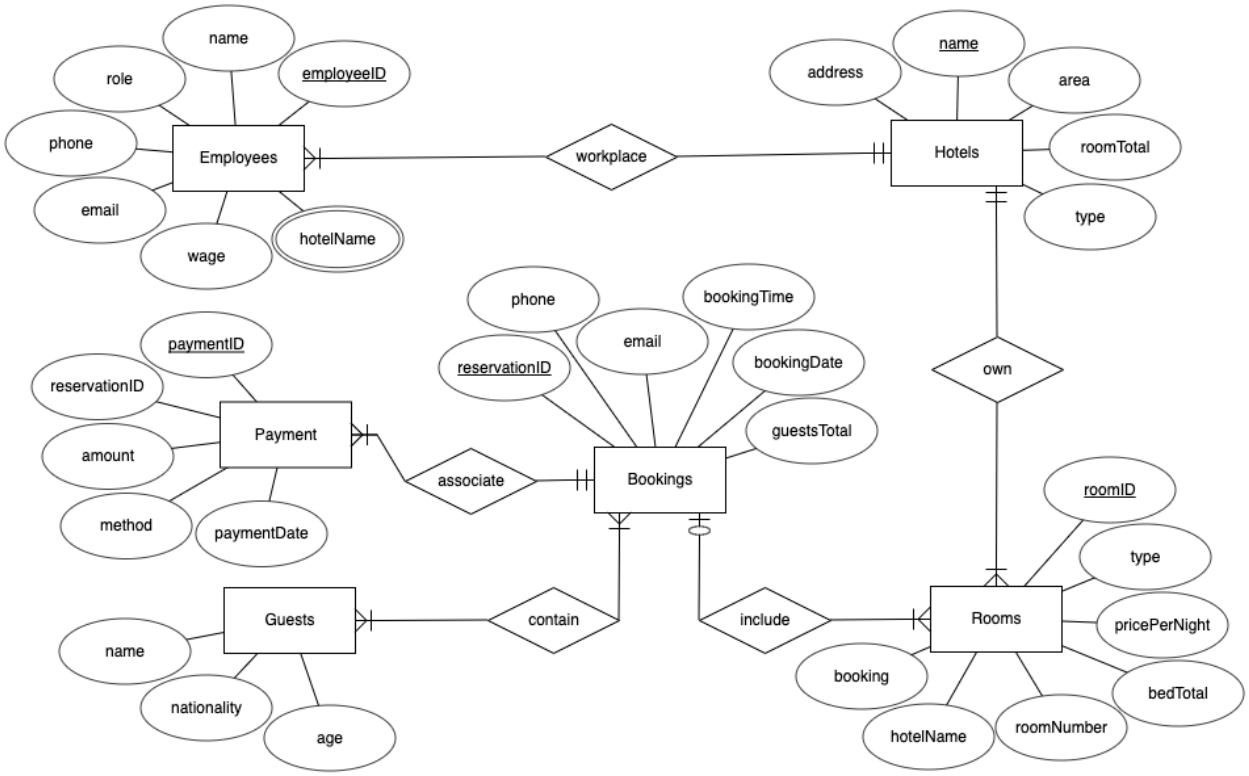
1. Hotels
2. Employees
3. Rooms
4. Bookings
5. Guests
6. Payment

Each entity will have a unique ID as their primary key so that users of the database can accurately and precisely access each entry. Hotel will have its address as its unique identifier.

Since the system is designed for a chain of hotels, there is a Hotel entity to keep track of all the locations. Each location will contain rooms, which is also an entity. Employees will work at one location. Bookings are made and associated with payment information through the Payment entity. Each Booking consists of Guests. The relationships between the entities are represented in the ER Diagram / Relational schema on the next page.

The system will be implemented in mySQL with some JDBC.

ER Diagram



Relational schema

Employee(<u>employeeID</u>, name, role, phone, email, wage)
Hotel(<u>address</u>, name, area, roomTotal, type)
Room(<u>roomID</u>, type, pricePerNight, bedTotal, address, roomNumber)
Booking(<u>reservationID</u>, phone, email, bookingTime, checkInDate, checkOutDate, guestsTotal)
Guest(<u>guestID</u>, name, nationality, age)
Payment(<u>paymentID</u>, amount, method, information, paymentDate)