**HOTEL RESERVATION SYSTEM**

**Database Management System Project**

**Team Members:**

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**Introduction:**

Hotel needs to maintain the record of guests and reserve rooms beforehand. Customers should be able to know the availability of the rooms on a particular date. They should be able to reserve the available rooms according to their need in advance. To make their stay comfortable, they are provided with food and other services or facilities. The record of the food taken by each customer and the services availed by the customer should be kept. These records help in generating bill.

**Entities and Attributes:**

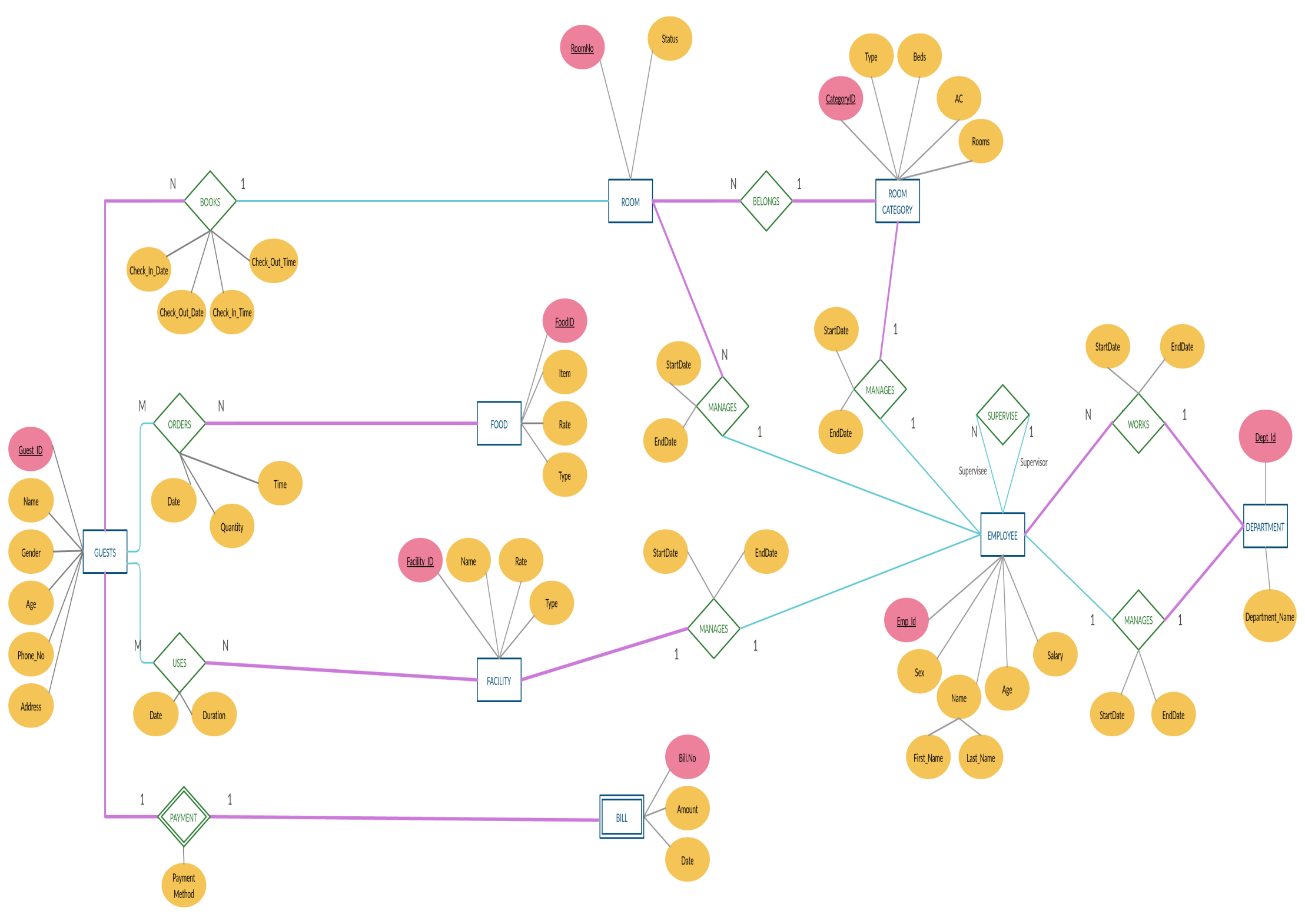
1. GUEST has attributes Guest\_ID(Primary Key), Name, Gender, Age, Phone\_No and Address.
2. ROOM has attributes Room\_No(Primary Key) and Status.
3. ROOM CATEGORY has attributes Category\_ID(Primary Key), Type, Beds, Ac and Rooms.
4. FOOD has attributes Food\_ID(Primary Key), Item, Rate and Type.
5. FACILITY has attributes Facility\_ID(Primary Key), Name, Rate and Type.
6. EMPLOYEE has attributes Emp\_ID(Primary Key), Sex, Age, Salary and composite attribute Name(First \_Name, Last\_Name).
7. DEPARTMENT has attributes Dept\_ID(Primary Key) and Department\_Name.
8. BILL has attributes Bill\_No(Partial Key), Amount and Date.

**Relations and their description:**

1. GUEST BOOKS ROOM from Check\_In\_Date to Check\_Out\_Date and Check\_In\_Time to Check\_Out-Time. One Room can be used by many GUEST but one GUEST can use one ROOM.
2. ROOM BELONGS to ROOM CATEGORY. One ROOM CATEGORY can have many ROOMS.
3. GUEST PAYS BILL through different PAYMENT modes. A GUEST must pay a BILL.
4. GUEST may USE FACILITY for some duration on some date. One GUEST can use more than one FACILITY and one FACILTY can be used by many GUEST.
5. GUEST ORDERS FOOD at some time on some date. GUEST can order more than one FOOD item and one FOOD item can be ordered by many GUEST.
6. EMPLOYEE MANAGES FACILITY, ROOM CATEGORY and DEPARTMENT from StartDate to EndDate in 1:1 relationship i.e, one EMPLOYEE can MANAGE only one FACILITY and one FACILITY will be MANAGE by one EMPLOYEE and goes same for all above entities.
7. EMPLOYEE MANAGES ROOM from StartDate to EndDate. One EMPLOYEE can MANAGE more than one ROOM but one ROOM can be managed by only one EMPLOYEE.
8. EMPLOYEE WORKS in DEPARTMENT. More than one EMPLOYEE can work in same DEPARTMENT but one EMPLOYEE can WORK only in one DEPARTMENT.
9. EMPLOYEE MANAGES DEPARTMENT. One DEPARTMENT can be managed by one EMPLOYEE and one EMPLOYEE can MANAGE only one DEPARTMENT.
10. EMPLOYEE can be Supervisor and Supervisee. One Superviser can SUPERVISE many Supervisees.

**ER Diagram:**

Here, Bold Line (PINK) represents Total Participation whereas Normal Line (BLUE) represents Partial Participation.

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