Restaurant Table Reservation & Ordering - ER Diagram

Customer

Customer_ID
Name
Phone
Email

Waiter

Waiter_ID
Name
Phone

N

N

11

Reservation

Reservation_ID
Date
Time
No_of_Guests
Customer_ID
Waiter_ID

1

Order

Dish_ID
Dish_Name
Price
Category_ID

N

Category

Category_ID
Category_Name

M:N

11

Order_Details

Order_ID
Quantity

1
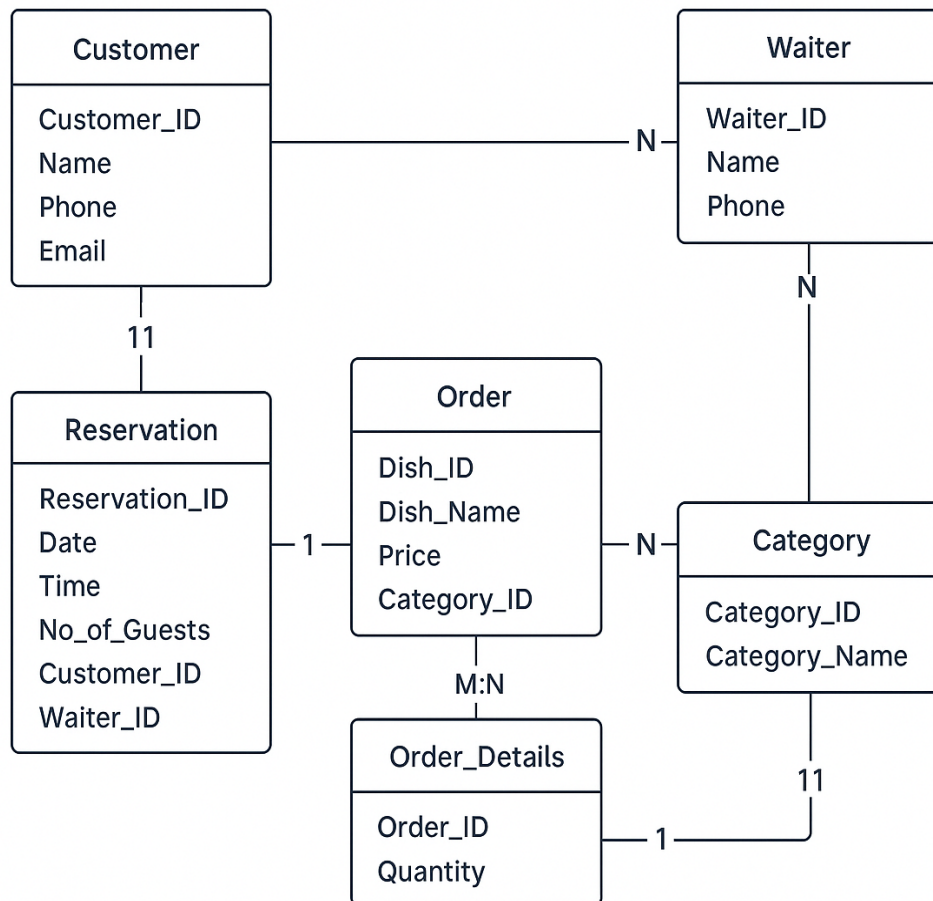
Entity List:

1. Customer (Customer_ID, Name, Phone, Email)
2. Reservation (Reservation_ID, Date, Time, Guests)
3. Order (Order_ID, Date, TotalAmount)
4. Dish (Dish_ID, Name, Price)
5. Category (Category_ID, Name)
6. Bill (Bill_ID, Amount, ServiceCharge)
7. Waiter (Waiter_ID, Name, Contact)

Primary Keys:

Customer_ID, Reservation_ID, Order_ID, Dish_ID, Category_ID, Bill_ID, Waiter_ID

Relationships:

- Customer makes Reservation (1:N)
- Reservation has Order (1:N)
- Order contains Dish (M:N)
- Dish belongs to Category (M:1)
- Reservation generates Bill (1:1)
- Waiter serves Reservation (1:N)

Assumptions:

- Each reservation is linked to exactly one bill.
- A waiter can serve multiple reservations.
- Customers may have multiple reservations.
- Orders are always tied to reservations.