



Project title : Database design of restaurant management system

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Database design

Restaurant Management System

1. Designing (Entity Relationship) ER Diagram

Steps of drawing ERD

1. Identify the Entities required
2. Identify the Attributes and Primary key for each Entity
3. Identify the Relationship needed
4. Identify the Cardinality Ratio and Participation
5. Draw the Diagram

Step-01 : Identifying the entities required.

- | | |
|----------------|----------------|
| 1. Users | 6. Invoices |
| 2. Menu | 7. Suppliers |
| 3. Table | 8. Reservation |
| 4. Orders | 9. Employees |
| 5. order_items | 10. Feedback |

Step-02 : Identifying the attributes and primary key for each entity.

1. Users (id, name, email, phone, role)
2. Menu (item_id, name, description, price, available)
3. Table (table_id, table_number, capacity, status)
4. Orders (ord_id, order_date, status)
5. Order_items (ord_item_id, quantity, price)
6. Invoices (id, amount, payment_method, date)

7. Suppliers (id, name, contact)
8. Reservation (id, reserve_date, status)
9. Employees (id, name, contact, shift_start, shift_end)
10. Feedback (id, comments, rating)

Step-03 : Identifying the relationship needed.

1. Users -give-Orders
2. Users-give-Feedback
3. Users-need-Reservation
4. Orders-assign-Table
5. Orders-include-Order_item
6. Order_item-assign-Menu
7. Orders-need-Invoices
8. Table-allocates for-Reservation
9. Orders-need-Feedback

Step-04 : Identifying the cardinality ratio and participation

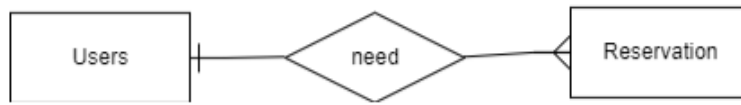
1. Users-give-Orders



2. Users-give-Feedback



3. Users-need-Reservation



4. Orders-assign-Table



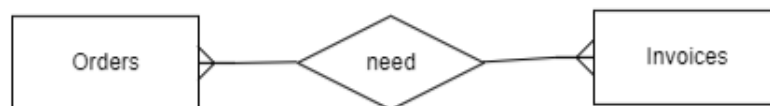
5. Orders-include-Order_item



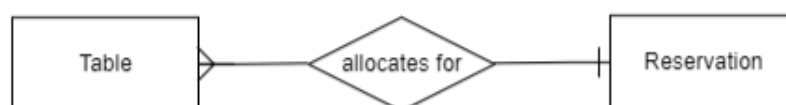
6. Order_item-assign-Menu



7. Orders-need-Invoices



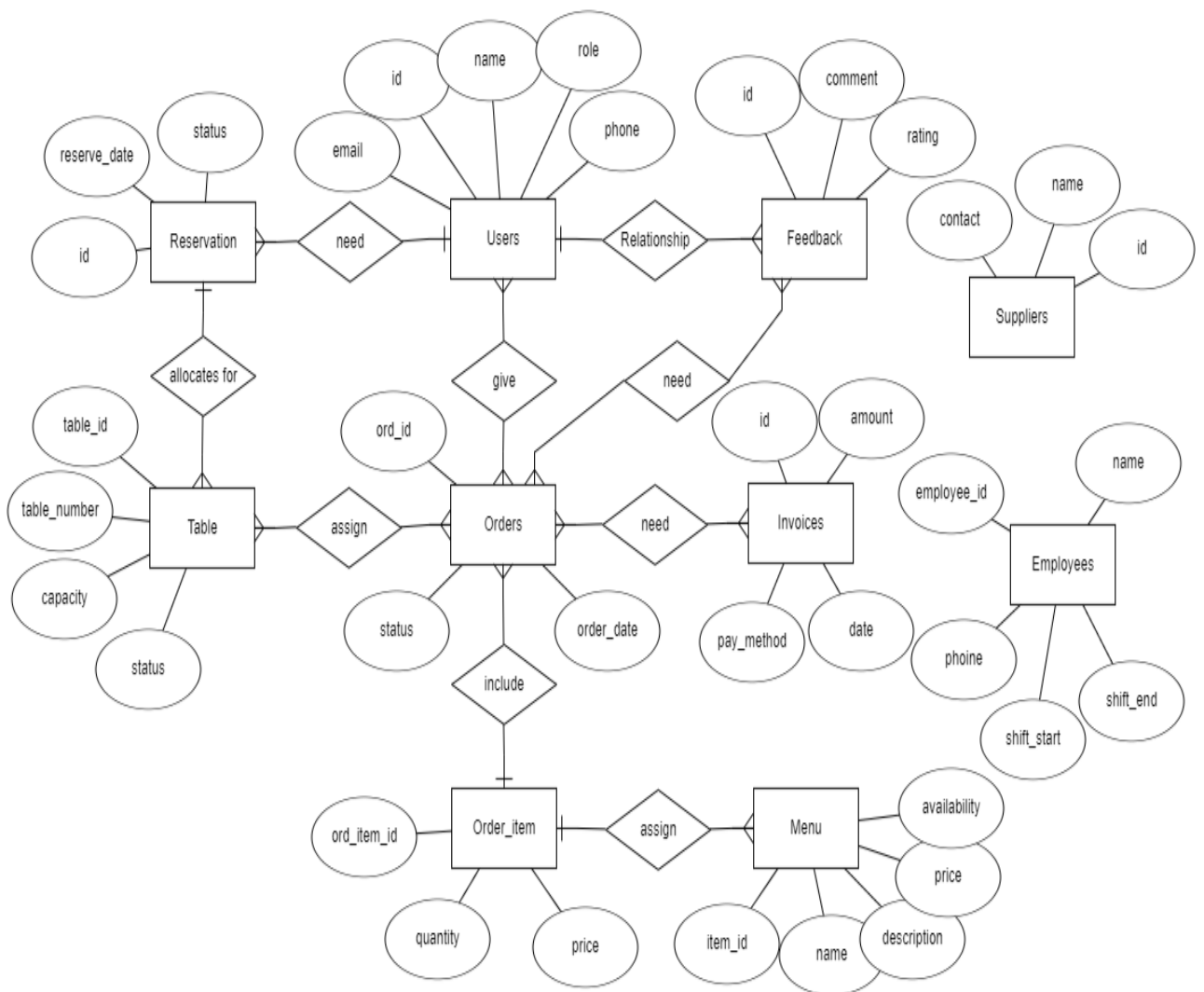
8. Table-allocates for-Reservation



9. Orders-need-Feedback



Step-05 : Drawing the diagram.



2. Reduction to database schema:

1. Users (id, name, email, phone, role)
2. Menu (item_id, name, description, price, available)
3. Table (table_id, table_number, capacity, status)
4. Orders (ord_id, user_id, table_id, order_date, status)
5. Order_items (ord_item_id, ord_id, item_id, quantity, price)
6. Invoices (id, ord_id, amount, payment_method, date)
7. Suppliers (id, name, contact)
8. Reservation (id, user_id, table_id, reserve_date, status)
9. Employees (id, name, contact, shift_start, shift_end)
10. Feedback (id, user_id, ord_id, comments, rating)

