Data Management and Database Design
Section 2 Spring 2022

P2. Database Design, Initial ERD

RESTAURANTS FOOD DELIVERY MANAGEMENT

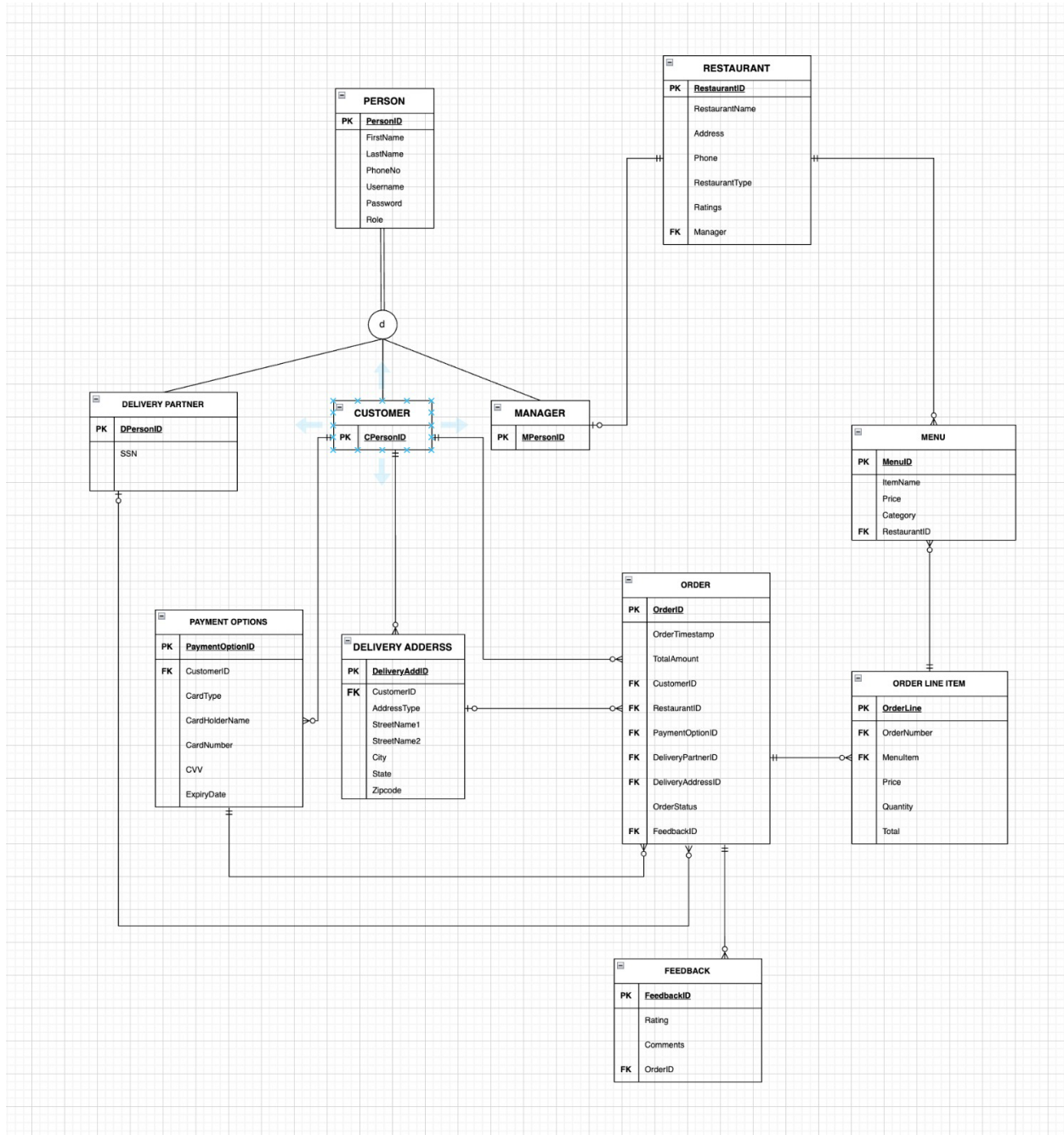**Team Members**

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MISSION STATEMENT

1. User Management: The system would register and store the information of users, such as Name, username, contact information including email address and phone number, delivery addresses, payment options etc. A user would have the capability to update these fields.
2. Restaurant Management: System admin would be able to add, update and delete different restaurants in the system.
3. Menu Management: Restaurant would be able to manage the menu items available to the customers i.e. add, edit or delete.
4. Order Management: To help restaurants manage the orders placed by customers from restaurants. A restaurant can cancel or complete an order. Users would have the feature to check the order history.
5. Feedback/Rating Management: Customers would be able to provide feedback to the restaurants. A customer can provide feedback and rating on each order. The best rating foods should be listed in recommendations.

6. Payment Management: System will store the payment details and options chosen by the users for each order.
7. Delivery Management: The system will have the capability to add and manage delivery partners. This system would store driver's details such as name, username, order delivery history etc.

Entity Relation Diagram

Design Document

For Food delivery management system, below are the entities –

1. Person – To store person information. Person can be of three types:- (customer; restaurant manager; delivery partner)
2. Customer – To store customers registered on our system
3. Delivery Address – To store customer's delivery address(es)
4. Restaurant – To store restaurants registered on our system
5. Menu Item – To store menu items for each restaurant
6. Order – To store orders placed by Customer from a restaurant
7. Order Line Item – To store menu items placed in each order
8. Payment – to store customer's payment options
9. Delivery Partner – to store delivery partners data
10. Feedback – to store feedback given by customers for each order

Below is the list of entities identified with their attributes and PK and FK

Entity Names	Column Names	Data Type	Key Type/Picklist values
Person	**Person ID**	Auto-Generated (10)	PK
	First Name	String (40)	
	Last Name	String (40)	
	email ID	String (40)	
	Phone number	Number(10)	
	username	String (20)	
	password	String (20)	
	Role	Picklist	Customer/Delivery Partner/Restaurant Manager/Admin
Customer	**Customer ID**	Auto-Generated (10)	PK
	Person ID	Relationship	FK
Delivery Address	**Delivery Address ID**	Auto-Generated (10)	PK
	Customer ID	Relationship	FK
	Address Type	Picklist	Home/Office/Other
	Street Name 1	String (80)	
	Street Name 2	String (80)	
	City	String(20)	
	State	String(20)/Picklist	

	Pin code	Number(5)	
Restaurant	**Restaurant ID**	Auto-Generated (10)	PK
	Restaurant Name	String (80)	
	Address	String (80)	
	Phone	Number(10)	
	Restaurant Type	Picklist	Bakery/Fast Food/Fine Dine/Indo-Chinese
	Ratings	Number(1)	
	Manager (Person ID)	Relationship	FK
Menu Item	**Menu Item #**	Auto-Generated (10)	PK
	Menu Item Name	String (80)	
	Price	Number(5)	
	Category	Picklist	Dessert/Chinese/Indian/Mexican
	Restaurant ID	Relationship	FK
Order	**Order #**	Auto-Generated (10)	PK
	Order Timestamp	DateTime	
	Total Amount	Number(5)	
	Customer ID	Relationship	FK
	Restaurant ID	Relationship	FK
	Payment Option ID	Relationship	FK
	Delivery Partner ID	Relationship	FK
	Delivery Address ID	Relationship	FK
	Order Status	Picklist	Received, In Progress, On the way, Delivered, Cancelled
	Feedback ID	Relationship	FK
Order Line Item	**Order Line #**	Auto-Generated (10)	PK
	Order #	Relationship	FK
	Menu Item	Relationship	FK
	Price	Number(5)	
	Quantity	Number(3)	
	Total Per Item	Number(5)	
Payment Options	**Payment Option ID**	Auto-Generated (10)	PK
	Customer ID	Relationship	FK

	Card Type	Picklist	Credit/Debit
	CardHolder Name	String (40)	
	Card Number	String(16)	
	CVV	Number(3)	
	Expiry date	Date	
Delivery Partner	**Delivery Partner ID**	Auto-Generated (10)	PK
	Person ID	Relationship	FK
	SSN	Number(10)	
Feedback	**Feedback ID**	Auto-Generated (10)	PK
	Rating	Number(1)	
	Comments	String(255)	
	Order ID	Relationship	FK