The Online Food Delivery System is an application that allows customers to order food online from various restaurants. The system supports multiple user roles (Customer, Restaurant, Delivery Person) and includes functionalities for browsing menus, placing orders, processing payments, and delivering orders.

1. Classes Overview

Class	Attributes	Operations/Methods
Customer	- customerId (int) - name (string) - address (string) - phone (string) - email (string)	- register() - login() - updateProfile() - placeOrder()
Restaurant	- restaurantId (int) - name (string) - address (string) - phone (string) - menu (List of FoodItem)	- addFoodItem(FoodItem) - removeFoodItem(FoodItem) - updateFoodItem(FoodItem) - viewOrders()
FoodItem	- foodId (int) - name (string) - description (string) - price (float) - available (bool)	- updateAvailability()
Order	- orderId (int) - foodItems (List of FoodItem) - totalPrice (float) - status (string)	- placeOrder() - cancelOrder() - updateStatus()
Payment	- paymentId (int) - amount (float) - method (string) - status (string)	- processPayment() - refundPayment()
DeliveryPerson	- deliveryId (int) - name (string) - phone (string) - available (bool)	- assignOrder(Order) - updateStatus()

2. Relationships Between Entities

Source Class	Target Class	Relationship Description	Multiplicity
Customer	Order	A Customer places an Order.	1 Customer : * Orders
Restaurant	FoodItem	A Restaurant offers multiple FoodItem objects in its menu.	1 Restaurant : * FoodItems
Restaurant	Order	A Restaurant receives orders from customers.	1 Restaurant : * Orders
Order	FoodItem	An Order contains one or more FoodItem objects.	1 Order : * FoodItems
Order	Payment	Each Order is associated with exactly one Payment.	1 Order : 1 Payment

Order	DeliveryPerson	An Order may be delivered by a DeliveryPerson (if assigned).	1 Order : 0..1 DeliveryPerson