Web-based System for a Restaurant Specializing in Burgers and Pizzas

1. Functionality Description:

Purpose:

The system is designed to provide customers with an intuitive interface, allowing them to effortlessly browse through a menu of burgers and pizzas, place, and track orders, and leave feedback. Simultaneously, the platform aids restaurant staff in managing orders and inventory efficiently.

Functionality Overview:

Users can seamlessly navigate the menu, distinguishing between burgers and pizzas. After making their selection, they can place an order, with the system instantly providing an estimated preparation time. Registered users benefit from features like viewing order history and participating in loyalty programs. A pivotal element is the feedback mechanism, allowing users to voice their opinions about their orders.

2. ER Diagram Explanation:

Entities and Relationships:

Customer: This entity captures comprehensive details about each customer.

Attributes include: CustomerID, Name, Email, Password, PhoneNumber, LoyaltyPoints.

Relationships: Every customer "Places" orders and "Provides" feedback.

Order: Holds all necessary details about individual orders.

Attributes consist of: OrderID, CustomerID, OrderDate, OrderStatus, EstimatedPreparationTime, TotalPrice.

Relationships: An order "Contains" menu items and is "Placed by" a customer.

MenuItem: Represents items on the menu, namely burgers and pizzas.

Attributes cover: ItemID, Name, Description, Price, Category (Burger or Pizza).

Relationships: Each item is a "Part of" orders and can be "Reviewed in" feedback.

Feedback: Holds customer reviews and ratings.

Attributes include: FeedbackID, CustomerID, ItemID, Rating, Comment.

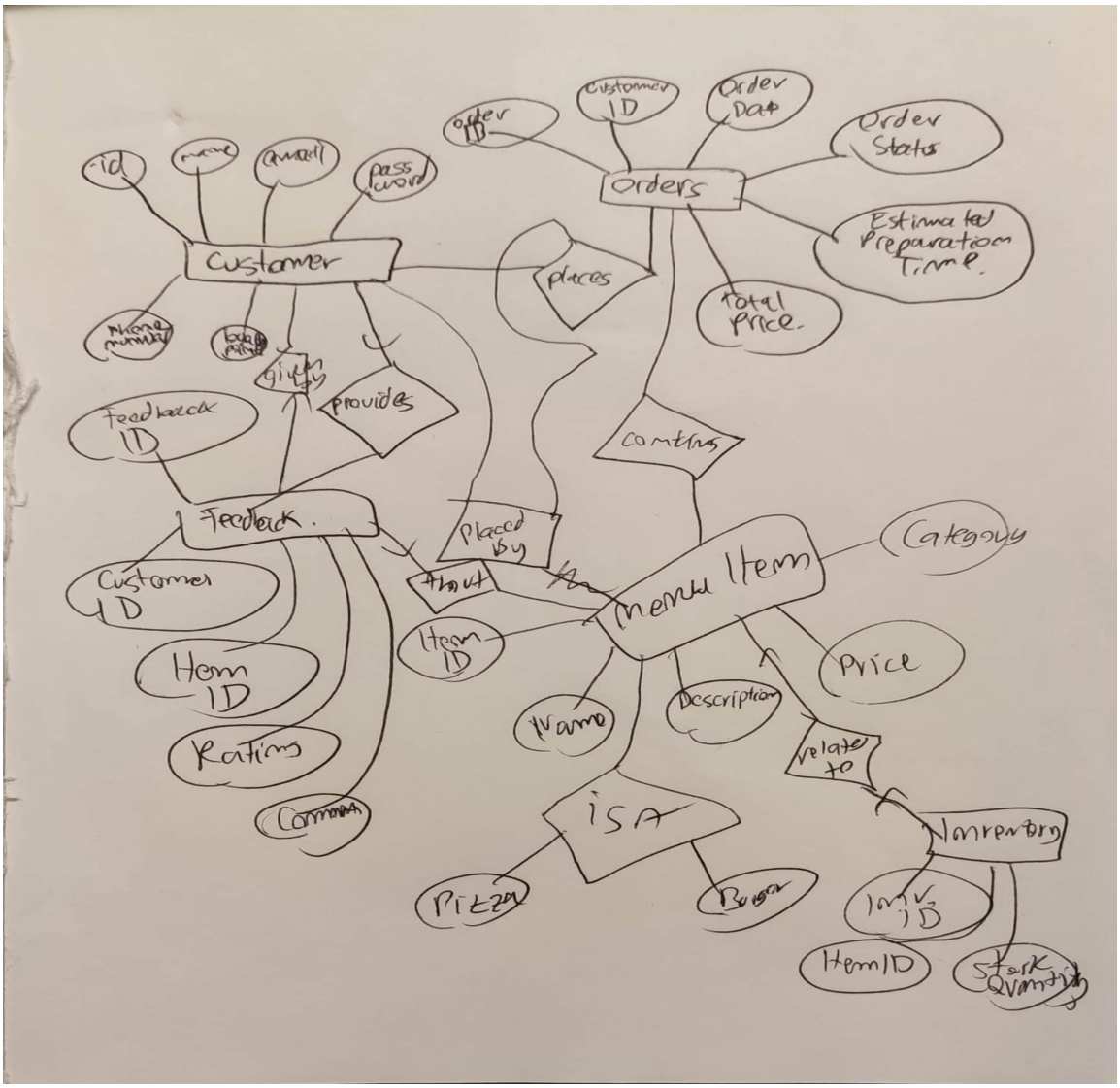
Relationships: Feedback is "About" a menu item and "Given by" a customer.

Inventory: A backend entity that oversees stock levels for ingredients.

Attributes: InventoryID, ItemID, StockQuantity.

Relationships: Inventory "Relates to" menu items.

Regarding ISA Hierarchies, "MenuItem" can have two sub-entities: Burger and Pizza, each with its unique attributes (e.g., Burger might have 'BunType', and Pizza might have 'CrustType').



3. User Interaction:

View Menu: Users can explore the detailed menu, browsing between burger and pizza offerings, acquainting themselves with the available items and their respective prices.

Place Order: After finalizing their choices, users can confirm their order, instantly receiving an order confirmation and an estimated preparation time.

Track Order: The platform facilitates real-time tracking of orders, informing users about the status, ranging from 'Preparing' to 'Ready for Pickup' or 'Delivered'.

User Registration/Login: An easy-to-use interface where new users can register while returning patrons can swiftly login to manage their profiles.

Order History: Exclusively for registered users, this feature allows them to revisit their past orders.

Feedback System: Users can share reviews and ratings after enjoying their meal, providing invaluable insights to the restaurant.

Loyalty Program: Every order accrues loyalty points for registered users, which can be redeemed in future orders.

Handle Illegal Input: The system is adept at managing user errors. If invalid data is entered (like a non-conforming email format), it promptly displays an error message to guide the user.