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Domain model grade4

Classes and attributes analysis

1. **Customer:** The Customer is the primary user in the Max Hamburgare system. They engage with the system by placing orders, choosing delivery and payment options, and managing their profiles.

* **Attributes:** Customer-ID, Username, Password, Email, phone number, Delivery addresses Payment methods

1. **MenuItem:** A MenuItem refers to food that customers can select from the menu. Each item is classified into a category and includes key information such as its price and ingredients. The availability of each item needs to be monitored to ensure it can be ordered.

* **Attribute:** MenuItemID, Name, Category, Description, Price, Ingredients, Status

1. **Order:** An Order represents a request made by a customer to purchase menu items. It includes information about the chosen menu items, payment details, delivery options, and the status of the order.

* **Attributes:** OrderID, OrderDate, CustomerID, MenuItems, TotalAmount, PaymentMethod, DeliveryMethod, OrderStatus

1. **PaymentMethod:** A PaymentMethod represents the method a customer uses to pay for their order. Different methods like credit cards, PayPal, or Swish are available.

* **Attributes:** PaymentMethodID, Name, Description, TransactionFee, ProcessingTime, Currencies

1. **DeliveryMethod:** The DeliveryMethod determines how the customer will receive their order. Different options include home delivery, pickup, or drive thru.

* **Attributes:** DeliveryMethodID, Name, Description, DeliveryFee, CoverageArea

1. **Offer:** An Offer is a discount or special deal added to an order. These deals might have limits, like a minimum order amount or specific items they can be used on.

* **Attributes:** OfferID, Description, DiscountAmount, StartDate, EndDate, ApplicableMenuItems, MinimumOrderValue

1. **Restaurant:** A Restaurant represents a physical location of Max where orders can be prepared and delivered. Each location has its own address, opening hours, and available services.

* **Attributes:** RestaurantID, Name, Address, OpeningHours, PhoneNumber, AvailableDeliveryMethods, Capacity

1. **Supplier:** A Supplier provides the ingredients and goods necessary for preparing the menu items

* **Attributes:** SupplierID, Name, ContactInformation, SuppliedItems, DeliverySchedule

1. **Employee:** An Employee is a staff member working at a Max Hamburgare restaurant. Employees have various roles such as cashiers, cooks, or delivery drivers.

* **Attributes:** EmployeeID, Name, Role, HireDate, ContactInformation, ShiftSchedule, Salary

Relationships analysis

1. **Customer to Order (one to many):** Each customer can make many orders, but each order comes from just one customer.
2. **Order to MenuItem (many to many):** An order can have many menu items, and a menu item can be in many different orders.
3. **Customer to PaymentMethod (one to many):** A customer can save many payment options (like credit cards or PayPal), but each payment option belongs to just one customer in their account.
4. **Order to PaymentMethod (one to one):** Each order is paid for with a single payment method, and every payment transaction is connected to one order.
5. **Order to DeliveryMethod (one to one):** Each order is delivered using one delivery method (such as pickup or home delivery), and each delivery is associated with just one specific order.
6. **Restaurant to Order (one to many):** A restaurant location can process many orders, but each order is handled by only one restaurant.
7. **Restaurant to Employee (one to many):** Each restaurant employs multiple employees, but each employee is assigned to only one restaurant location at a time.
8. **Offer to Order (one to many):** An offer can be applied to many different orders, but each order can use only one active offer at a time
9. **Supplier to Restaurant (one to many):** A supplier can deliver goods to multiple restaurant locations, but each restaurant has several suppliers to meet its inventory needs.
10. **Employee to Order (one to many):** An employee can manage several orders, but each order is handled by one employee at each stage of the process.

Domain model diagram

