Database Design
Online Food Ordering Database Design

Abstract

Online Food Ordering Database System keeps the ordering record every moment. It can keep the information of Customer, Restaurant, Delivery, Menu, Custom Service, Order, Food, Transaction and Feedback.

Business Rules/ Ideas

Our project deals with all the transactions that are handled by our system, we have identified the following entity types. An identifier is also suggested for each entity, together with selected important attributes:

1) Customer is an entity that contains all the person who use online food ordering system. CustomerID is the primary key of Customer entity and it contains the contact information of the customer such as 'Username', 'Password', 'Address', 'Phone3#'. It also contains 1 foreign key 'DriverID'.
2) Frequent Customer and VIP Customer are two disjoint subtypes entities of Customer which is the supertype. The primary key of them is CustomerID and Frequent Customer has the attribute 'Order#perMonth', VIP Customer has the attribute 'DiscountRate' and 'DilveryCoupon'.
3) CustomerService is an entity that solve customer's problems. ServerID is the primary key of CustomerService entity and it contains the contact information of the customer service such as 'ServerName'. It also contains 1 foreign key 'CustomerID'. It has many to many relationship with Customer.
4) Delivery is an entity that ensures the delivery of food. RestaurantID, CustomerID, DriverID and OrderID are primary keys of Delivery entity and they contain the contact information of the customer service such as 'DeliveryFee' and 'DeliveryTime'.
5) Restaurant is an entity which provides food so that customer can order and choose. RestaurantID is the primary key of Restaurant entity and it contains the information of 'RestaurantName', 'Address', 'Phone#', 'OpenTime' and 'RestaurantCategories'.
6) All restaurants have their food menu so that we need a new entity Item, customer can find various food in food menu. ItemID is the primary of Item entity, it also has a foreign key RestaurantID. Item entity has the details such as: 'ItemName', 'ItemDescription', 'Item Categories' and 'ItemUnitedPrice'.
7) After customer has ordered online, restaurant need a person to deliver the food, so we create a DeliverDriver entity. DriverID is the primary key of DeliveryDriver, it contains the information of 'Name', 'Phone#', 'CarType' and 'VIN'.
8) Order is an entity that contains information of an order. It has two main attributes. OrderID is the primary key as well as the identification of this entity. OrderTime records the time which this order takes place. Two subtypes are in this entity, named ForDelivery and ForPickUp, which indicates whether this order is for delivery or pickup.

9) OrderLine is an associated entity which includes the relationship between an Order and an Item. It has OrderId, OrderlineID, ItemId and RestaurantID to give information about the order and item. OrderedQuantity is the number of items purchased in the specific order.
10) Transaction is an entity that includes the transaction information when the customers pay money. TransactionID and OrderID consists of the primary key. Payment method is an attribute which can be chosen from CreditCard, Paypal or cash. The transaction has an one-to-one relationship with the order showing that one order has only one transaction and a transaction can be led out by only one order.
11) Feedback is an entity that contains information about the Comment and Review part of an order. FeedbackID is the identification of this feedback. Ranting is a strategy which can be chosen by customer of a score between 0 to 5. Comment is an attribute that contains several sentences where a customer gives to an order. It also includes CustomerID and RestaurantID to indicate which Customer gives which Restaurant comment.

Entity- Relationship Diagram

[Note: ERD needs to clear and readable]