

Case study (part 3): Class diagram

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Description of classes

Customer : Shows the name of the customer.

DeliveryCustomer class: Saves the address and the phone number of the customer that are needed to send the delivery.

Order: Shows the orderId, to identify each order.

PaymentController: Stores debit card number and credit card number, and uses them to approve payment. Also records the payment type (Credit card, cash or debit card, this is important because it determines if the discount for group bookings will be given).

InventoryController: Records the minimum non-perishable number of items that have to be present. If they are less than this minimum, an order is made to the supplier. Also, inventory and goods sold data are updated when an order is made. Finally, it generates an inventory report for the manager.

MenuItem: Shows the name, Id, price and quantity of the items in an order that can be one or more.

InventoryItem: Shows the name, Id and quantity of the inventory items that form a menu item.

Total Stock: It is important to record this, because when the order is made, the inventory items used for that order have to be deducted from the inventory list. There is a composition relationship, because inventory items are part of the total stock.

Menu: Lists all the menu items that the customer can order. The list of all the menu items wasn't included because it would occupy too much space in the class diagram. There is a composition relationship, because menu items are part of the menu. Also, the menu is an enumeration, because it has fixed values that don't change.

DiscountController: Records if the conditions for giving different types of discounts are met. For example, customer type (student, employee, member or regular), the number of orders (To give discount if the number of orders is more than 7 and the customer is a member), if they have their cards, etc.

ReceiptController: Calculates order price total, records it and prints receipt for the customer.

OrderSenderToKitchen: Sends order to the kitchen staff, specifying what menu items and in what quantity should be produced.

OrderSenderDeliveryStaff: Sends order to the delivery staff, specifying what menu items and in what quantity should be taken, and the address and phone number of the customer.

Group Booking: The data in this class is used to process the reservation of tables. Also, it records if it was paid in advance or not, because this determines if the order will have a discount or not.

Class diagram

