

Class diagram:

Inventory

id: Long ordered: int price: int available: int

getInventory(): Inventory
updateInventory(orderedQuantity: int): void

Coupon

id: Long code: String discount: int

getCoupons(): Map<String, Integer>

Order

id: Long
userId: int
product: Product
quantity: int
amount: int
coupon: String

placeOrder(userId: int, quantity: int, coupon: String): Order makePayment(userId: int, orderId: int, amount: int): String getUserOrders(userId: int): List<Order> getOrderById(userId: int, orderId: int): Order