Day 08 - Arrays and Objects

Practice Exercises

1. Shopping cart

Create an array of objects where each object represents an item in a shopping cart. Each item should have properties like `productName`, `quantity`, and `pricePerUnit`. Write a function that calculates the total cost of the items in the cart.

2. Apply Discount

Write a function that takes an object representing an `order` and a discount percentage. The `order` object should have properties like `orderTotal` and `discount`. The function should apply the discount to the `orderTotal` and return the updated order object.

3. Shopping cart with discount coupons

Enhance the shopping cart exercise by allowing users to apply discount coupons. Each coupon should have a `code` and a `discountPercentage`. Write a function that calculates the total cost of the cart after applying a valid coupon. If the coupon is invalid, the function should return an appropriate message.

4. Dynamic Product Price Based on Quantity

Create an object representing a product that offers bulk pricing (i.e., the price per unit decreases as the quantity purchased increases). Write a function that calculates the total price based on the quantity purchased, applying the appropriate price per unit.

3. Inventory Management

Create an array of objects representing products in an inventory. Each product should have properties like `name`, `price`, `category`, and `quantity`. Write a function that decreases the quantity of a product when it's purchased, and ensure the quantity doesn't go below zero.

Extend the inventory management to include a function that replenishes the stock of a product when it falls below a certain threshold. The function should automatically restock the product to a specified quantity when the threshold is reached.