

```

import java.util.ArrayList;

public class ShoppingCart {
    private ArrayList<Product> cart;
    private ArrayList<Integer> quantities;

    public ShoppingCart() {
        this.cart = new ArrayList<>();
        this.quantities = new ArrayList<>();
    }

    public void addToCart(Product product, int quantity) {
        if (product.reduceStock(quantity)) {
            cart.add(product);
            quantities.add(quantity);
            System.out.println(quantity + " x " + product.getName() + " added to your cart!");
        } else {
            System.out.println("Sorry, not enough stock for " + product.getName() + ".");
        }
    }

    public void displayCart() {
        System.out.println("\nYour Shopping Cart:");
        if (cart.isEmpty()) {
            System.out.println("Your cart is empty.");
            return;
        }
        double total = 0;
        for (int i = 0; i < cart.size(); i++) {
            Product product = cart.get(i);
            int quantity = quantities.get(i);
            double subtotal = product.getPrice() * quantity;
            System.out.printf("- %d x %s: %.2f\n", quantity, product.getName(), subtotal);
            total += subtotal;
        }
        System.out.printf("Total: %.2f\n", total);
    }
}

```