**Task 4**

You are working as a software developer in a company that specializes in managing e-commerce platforms. The company is developing a Product Catalog System that helps in maintaining the details of products, including their prices, stock levels, and related offers.

**Create the Product class with the following:**

* Constructor to initialize the product attributes: name, price, and stock.
* display() method to print the product details.

**Create the Bundle class:**

* Constructor to initialize the list of products and the discount percentage.
* Methods to add products to the bundle.
* A method applyDiscount() to apply a discount to all products in the bundle.
* A method display() to print the details of the bundle, including the product details and the applied discount.

**Implement Shallow and Deep Copy**

Create a type of copy of a bundle inn such a way that the new bundle should share the same **product list as the original bundle**. Any changes made to the product list in one bundle should affect the other.

Create a such type of copy of a bundle that the new bundle should create its own independent copy of the product list, so changes made to one bundle’s product list should not affect the other.

**Test and Display:**

* Create a main() function that:
* Creates a Bundle object and adds a few Product objects to it.
* Creates both shallow and deep copies of the bundle.
* Modifies the original bundle and shows how the shallow