

## 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 in 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