**Features Required:**

1. **Product Management**
   * Add a new product with:
     + Product ID (unique, auto-generated)
     + Name
     + Category
     + Price
     + Stock Quantity
   * View all products
   * Update product details (price and stock only)
   * Delete a product
2. **Customer Management**
   * Add a new customer with:
     + Customer ID (unique, auto-generated)
     + Name
     + Email
   * View all customers
3. **Order Placement**
   * Place a new order for a customer
   * Choose one or more products with specified quantities
   * Validate:
     + Product exists
     + Enough stock is available
   * On successful order:
     + Decrease product stock accordingly
     + Save order details including:
       - Order ID (unique)
       - Customer ID
       - Product(s) and quantity
       - Total price
       - Order date
4. **Order History**
   * View all orders placed
   * View orders for a specific customer

**📦 Expected Architecture & Constraints**

* Use **OOP principles**: Classes for Product, Customer, Order, etc.
* Maintain **separation of concerns** (e.g., services, models, data access)
* Store data **in-memory** (no database, but use appropriate structures like dictionaries/lists)
* Use **interfaces** where applicable
* Input validation and error handling should be implemented
* Follow **clean code practices**: readable names, comments, method extraction

**✅ Optional Enhancements (Bonus)**

* Export product/order data to a .csv file
* Add a feature to **restock** items
* Implement **search** for products by name or category
* Add pagination or filtering when displaying long lists