**Problem Statement: Shopping Cart Console Application**

**📌 Objective:**

Build a console-based shopping cart system that allows users to browse products, add/remove items to/from the cart, view the cart summary, and checkout. The application should simulate a basic e-commerce flow with a focus on clean architecture and modular design.

**🧩 Requirements:**

**1. Product Catalog**

* Each product should have:
  + ProductId (int)
  + Name (string)
  + Price (decimal)
  + StockQuantity (int)
* Load a predefined list of products at startup.

**2. Shopping Cart**

* Users can:
  + Add products to the cart (with quantity).
  + Remove products from the cart.
  + View cart items and total cost.
* Cart should:
  + Prevent adding more items than available in stock.
  + Update stock when items are added/removed.

**3. Checkout**

* Display final cart summary.
* Confirm purchase.
* Deduct purchased quantities from stock.
* Clear the cart after checkout.

**4. User Interface**

* Console-based menu system:
  + View Products
  + Add to Cart
  + Remove from Cart
  + View Cart
  + Checkout
  + Exit

**🧠 Bonus Features (Optional for added complexity):**

* Apply discount codes (e.g., SAVE10 for 10% off).
* Persist cart data to a file.
* Add product categories and filter by category.
* Simulate multiple users with separate carts.