

1. Functional Requirements

Functional requirements describe **what the system must do.**

1.1 Product Management

The system must allow users to:

1. Add new products

- Enter product name
- Enter product price
- Enter product quantity in stock
- Validate input data

2. Update product information

- Modify product price
- Increase quantity (restocking)
- Decrease quantity (sales)
- Prevent quantity from dropping below 0

3. View products

- Display all products
- Show product name, price, and current quantity
- Optionally view a specific product

4. Delete products

- Remove a product by name or ID
- Confirm deletion before removing

2. Non-Functional Requirements

Non-functional requirements describe **how the system should perform.**

1. Usability

- Clear text-based menu
- Simple navigation
- Informative error messages

2. Reliability

- Validate all user input
- Handle errors gracefully (e.g., letters instead of numbers)

3. Performance

- Fast response time for small to medium product lists

4. Maintainability

- Clean and organized code structure
- Separation of logic and user interface
- Easy to extend (e.g., adding file or database storage later)

5. Compatibility

- Runs in a standard console
- No additional software required