Overview of the Inventory Management Website

1. Home Page (Login Page)

Purpose: Allow users to log in to the system using their credentials.

UI/UX: A clean and simple form with fields for Username and Password.

Styled using Bootstrap with centered form elements for better user experience.

Role-based access: Admins get full access, staff members get restricted access based on roles.

2. Dashboard

Purpose: Provide an overview of the inventory system with key metrics and quick access to critical functionalities.

Features: Summary Cards for total products, categories, suppliers, and low-stock items.

Low-Stock Alerts: Display in a list format with a simple red highlight.

Recent Stock Movements: List the latest updates in stock (restocks, sales).

Quick Actions: Add New Product, Restock Products, View Full Inventory List.

UI/UX: Use Bootstrap cards for key metrics, clean and responsive layout with a focus on readability.

3. Product Management Page

Purpose: Allow users to manage (add, edit, delete) products in the system.

Features: A table listing all products showing Product Name, Category, Supplier, Stock Quantity, Price.

Actions: Edit and Delete buttons next to each product.

Add Product button at the top for adding new products.

Pagination to break down the list if there are many products.

Sorting and filtering by category, supplier, and stock status.

UI/UX: Simple, clean table layout using Bootstrap, icons for Edit/Delete to make the interface user-friendly.

4. Add/Edit Product Form

Purpose: Let users add new products or edit existing products in the system.

Features: A form with fields - Product Name, Category (dropdown), Supplier (dropdown), Price, Stock Quantity, Low Stock Threshold.

Form Validation to ensure required fields are filled out.

UI/UX: Bootstrap forms for a responsive, clean form layout. Validation messages for missing or incorrect fields.

5. Suppliers Management Page

Purpose: Manage suppliers who provide products.

Features: A table listing all suppliers with Supplier Name, Contact Info.

Add Supplier button to add new suppliers.

Edit and Delete actions for each supplier.

UI/UX: Tables and modals for easy management, similar form design to Product Management for consistency.

6. Categories Management Page

Purpose: Manage product categories.

Features: A table listing all categories with Category Name, Description.

Add Category button to add new categories.

Edit and Delete actions for each category.

UI/UX: Consistent design with Suppliers and Products page, using Bootstrap modals for quick editing.

7. Stock Movements Page

Purpose: Track inventory changes (restocking, sales, adjustments).

Features: A table listing all movements, with Product Name, Quantity, Movement Type (Restock, Sale), Movement Date.

Filter movements by date or type (Restock, Sale).

Add new restocks or adjustments.

UI/UX: Filterable table with sortable columns for easier tracking.

8. Low Stock Alerts

Purpose: Notify the admin when stock levels fall below a certain threshold.

Features: Display alerts for products with stock below their defined threshold.

Provide an option to mark alerts as resolved or restock directly from the dashboard.

UI/UX: Use Bootstrap alerts or badges to make low-stock items stand out. Simple buttons to allow users to take action.

9. User Management (Admin Only)

Purpose: Admins can manage system users (add/edit/delete users, assign roles).

Features: Table of users with actions to edit or delete users.

Add User form to register new users and assign them roles (Admin/Staff).

UI/UX: Similar structure to other management pages with table and form consistency.

Role selection dropdown in the form to make it easy to assign roles.

10. Authentication & Authorization

Purpose: Control who has access to the system, with role-based access.

Features: Login Page - a basic form for users to log in.

Role-Based Navigation - Admins see more options than Staff (e.g., user management).

Logout Button easily accessible from any page.

UI/UX: Simple login form styled with Bootstrap, clear navigation menu that adjusts based on user roles.

Technologies & Frameworks

ASP.NET Core MVC for handling web application structure.

Entity Framework Core for database operations (CRUD).

Bootstrap for responsive design and UI components.

ASP.NET Identity for user authentication and role-based access control.

Simplified Navigation Flow

Login -> Dashboard -> Access relevant sections: Products, Suppliers, Categories, Stock Movements, Low Stock Alerts, and User Management (for Admins).

This plan keeps things simple, modular, and easy to maintain, ensuring a consistent design throughout the application.