Project Requirements Document

# Project Title: Inventory Tracker

To develop an inventory tracking system that helps businesses efficiently monitor stock levels, update inventory, and avoid overstocking or stockouts.

# Functional Requirements

## 1. Inventory Management

- Add new items/products

- Edit product details (name, price, category, etc.)

- Delete items from inventory

- View all inventory items in a list/table

## 2. Stock Tracking

- Show current quantity of each item

- Indicate stock status: In Stock, Low Stock (below a threshold), Out of Stock

## 3. Stock Adjustment

- Manual increase/decrease of stock

- Log adjustment reason (e.g., sold, damaged, restocked)

## 4. History and Logs

- Track every change to stock levels

- Display timestamp, item, quantity, and user

- Filter logs by item, date, or type

# User Roles (Optional)

- Admin: Full control (add, edit, delete, adjust)

- Staff/User: Limited access (view, adjust only)

# UI Features

- Dashboard overview: total items, low stock alerts

- Real-time search and filter

- Sorting (e.g., by quantity, name, price)

- Form validation for item inputs

- Pop-up notifications (e.g., “Item out of stock”)

# Technical Requirements

## Front-End:

- HTML, CSS, JavaScript

- (Optional) Bootstrap / React.js / Vue.js

## Back-End:

- Node.js + Express.js (or alternative like Flask or PHP)

- REST API for CRUD operations

## Database:

- MongoDB / MySQL / PostgreSQL

- Tables/Collections: items, logs, users

# Optional Enhancements

- User authentication with login/logout

- Export data to Excel/CSV

- Email notifications for low stock

- Barcode scanning for quick search

- Responsive mobile design

- Product image upload support

# Example Use Cases

|  |  |  |
| --- | --- | --- |
| User | Action | Result |
| Admin | Adds a new product | New product is listed in inventory |
| Staff | Updates stock level | Quantity is adjusted and logged |
| Manager | Reviews low stock | Sees list of items below threshold |
| Admin | Deletes a product | Item is removed from inventory |