

SOFTWARE TESTING DOCUMENTATION

StockFlow: Enterprise Inventory Management System

1 1. Introduction

This document records the systematic testing procedures applied to the "StockFlow" application. The objective is to verify that the system meets the functional requirements defined in the SRS and ensures robust performance under typical operational conditions.

2 2. Test Environment

All test cases were executed in the following environment:

- **Operating System:** Windows 11 Pro / macOS Sonoma
- **Browser:** Google Chrome (v120.0), Firefox (v121.0)
- **Resolution:** 1920x1080 (Desktop), 390x844 (Mobile Emulation)
- **Testing Methodology:** Black Box Testing

3 3. Detailed Test Cases

3.1 3.1. Module: Input Validation & Data Integrity

ID	Test Scenario	Expected Result	Status
TV-01	Attempt to add item with empty Name field.	"Name is required" error displayed. Form does not submit.	PASS
TV-02	Enter alphabetical characters in "Price" field.	Input rejected or validation error "Invalid Currency Format" shown.	PASS
TV-03	Enter negative value (-5) in "Quantity".	Error "Quantity cannot be negative" displayed.	PASS

TV-04	Enter specific Price with high precision (e.g., 10.999).	System rounds to 2 decimal places (11.00) or truncates to (10.99).	PASS
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3.2 3.2. Module: Inventory Operations (CRUD)

ID	Test Scenario	Expected Result	Status
TC-01	User adds a valid item and clicks Save.	Item appears immediately in the grid without page reload.	PASS
TC-02	User edits an existing item's price.	The updated price is reflected in the grid and Total Value KPI updates.	PASS
TC-03	User deletes an item.	Confirmation modal appears. Upon confirmation, item is removed.	PASS
TC-04	Add duplicate item (Same SKU/Name).	System allows it but generates unique internal ID (or warns user depending on logic).	PASS

3.3 3.3. Module: Search & Filtering

ID	Test Scenario	Expected Result	Status
TS-01	Search for existing substring "Lap".	Grid shows "Laptop", "Lapel Mic", etc.	PASS
TS-02	Search for non-existent item "Xylophone".	Grid displays "No items found" empty state.	PASS
TS-03	Clear search input.	Grid restores to showing full inventory list.	PASS

3.4 3.4. Module: System Behavior & Persistence

ID	Test Scenario	Expected Result	Status
TP-01	Refresh the browser tab.	Data persists via LocalStorage; User sees same state as before.	PASS

TP-02	Reduce Item Quantity to 0.	"Out of Stock" badge appears in Red.	PASS
TP-03	Reduce Item Quantity to Low Stock threshold (10).	"Low Stock" warning appears.	PASS
TP-04	Load application on Mobile device (390px width).	Layout adjusts to single column; Sidebar collapses to hamburger menu.	PASS

4 4. Summary of Results

- **Total Tests Executed:** 15
- **Passed:** 15
- **Failed:** 0
- **Critical Defects Found:** 0

Conclusion: The system is stable and meets all acceptance criteria for the prototype phase.