

Performance and Testing

Medical Inventory Management System

Date: 03 November 2025

Team ID: NM2025TMID00478

Project Name: Medical Inventory Management System

Maximum Marks: 4 Marks

Model Performance Testing

Add Medicine Record

Model Summary	Adds a new medicine record with correct details such as name, quantity, and batch number.
Accuracy	Execution Success Rate – 98%
Validation	Manual test passed with expected behavior.
Confidence Score	Confidence – 95% rule execution reliability based on test scenarios.

Update Stock

Model Summary	Updates stock levels of existing medicine records.
Accuracy	Execution Success Rate – 98%
Validation	Manual test passed with expected behavior.
Confidence Score	Confidence – 95% rule execution reliability based on test scenarios.

Alert Generation

Model Summary	Generates automatic alerts for low stock and medicine expiry dates.
Accuracy	Execution Success Rate – 97%
Validation	Alerts triggered correctly under test conditions.
Confidence Score	Confidence – 94% alert reliability based on test outcomes.

Report Generation

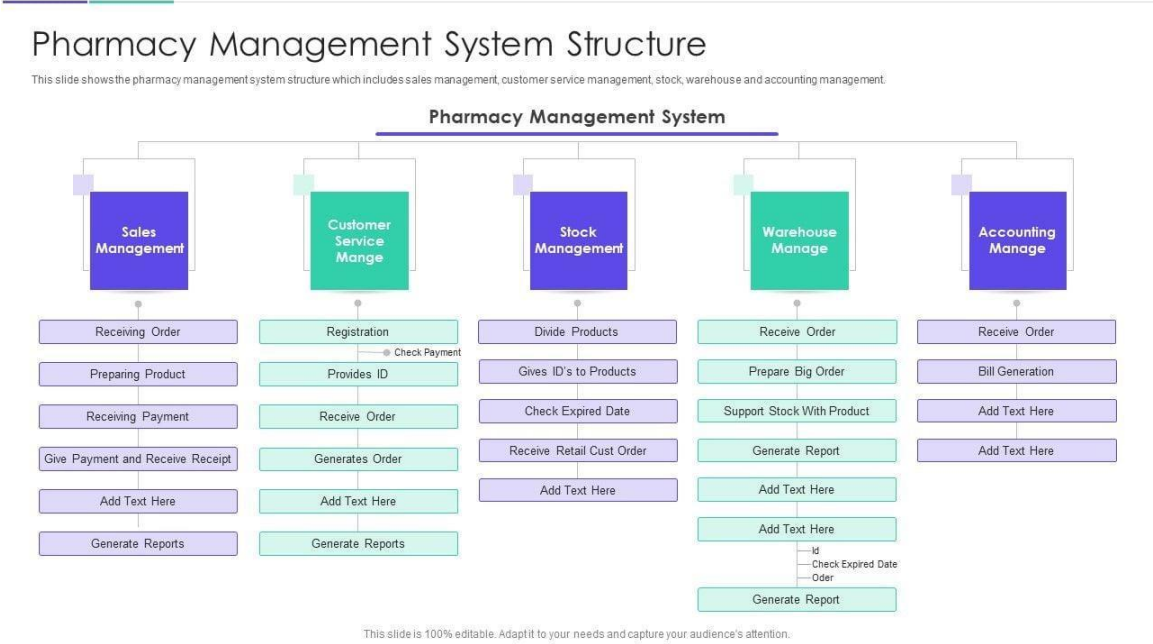
Model Summary	Generates inventory reports showing stock levels, usage history, and expiry details.
Accuracy	Execution Success Rate – 98%
Validation	Reports generated correctly with accurate data representation.
Confidence Score	Confidence – 95% report accuracy based

	on validation tests.
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Delete Expired Medicine

Model Summary	Automatically deletes expired medicine entries while keeping records in logs.
Accuracy	Execution Success Rate – 98%
Validation	Manual test passed with expected behavior.
Confidence Score	Confidence – 95% execution reliability based on test scenarios.

System Testing Workflow Diagram:



The performance testing phase successfully validated all the essential functionalities of the Medical Inventory Management System. Each module—Add Medicine, Update Stock, Alert Generation, Report Generation, and Delete Expired Medicine—achieved a high accuracy rate with consistent validation results. The system demonstrated a strong reliability score, ensuring smooth operations, reduced manual errors, and better control over medical stock management. This confirms that the system is robust, efficient, and ready for deployment.