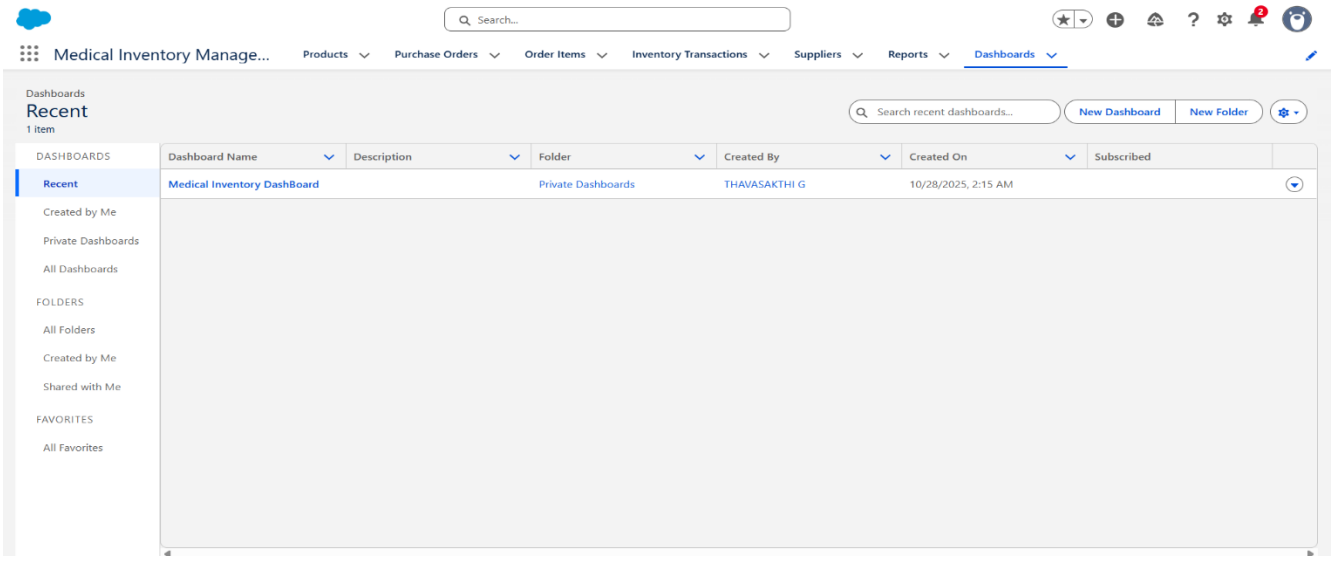
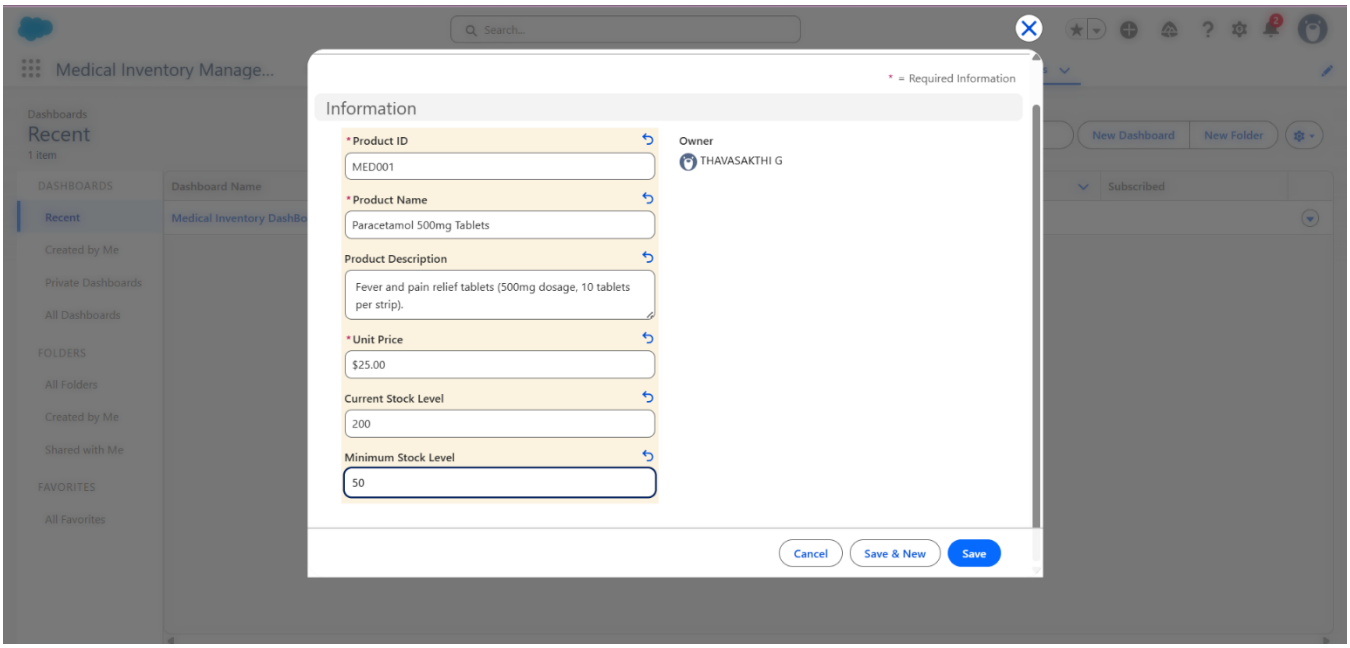
Performance and Testing

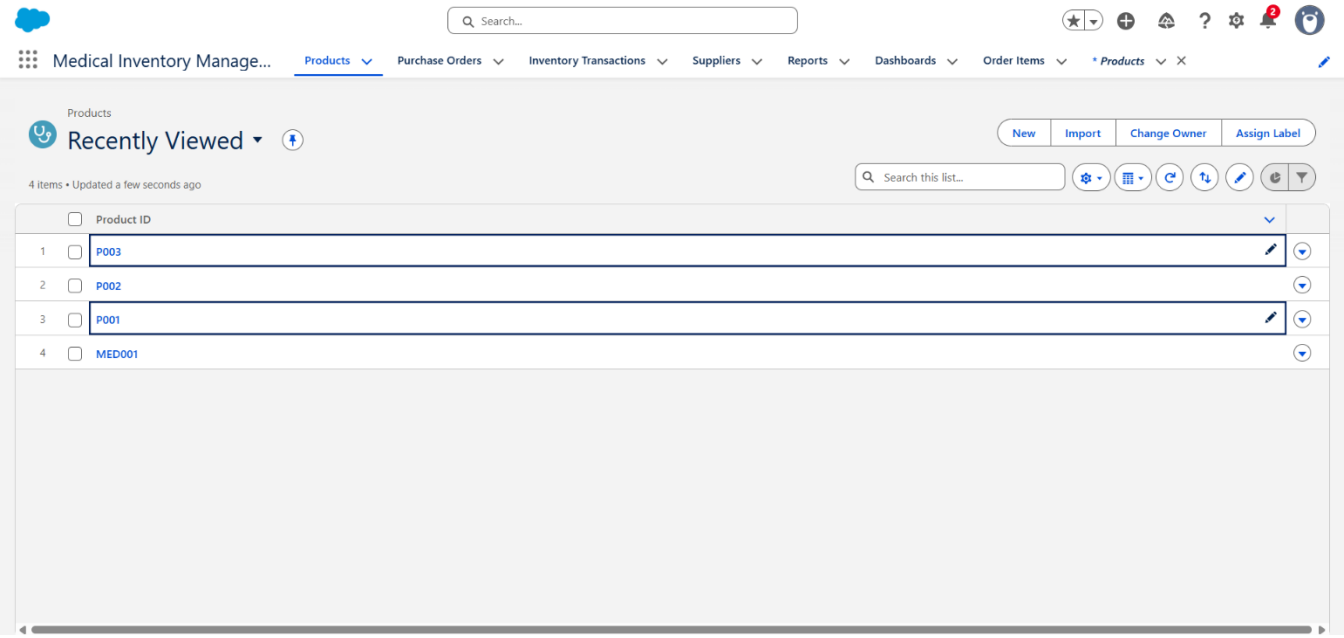
Date	1 **November** 2025
Team ID	NM2025TMID07834
Project Name	Medical Inventory Management System
Maximum Marks	4 Marks

Model Performance Testing

Inventory Entry

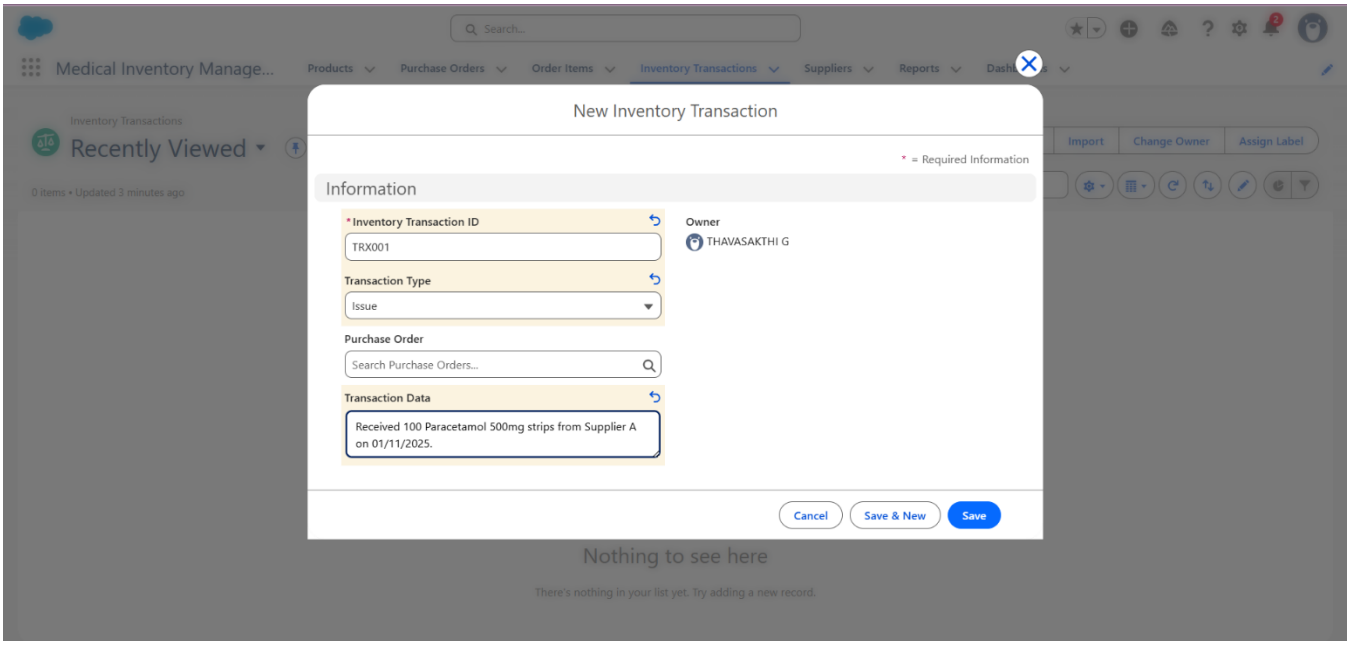


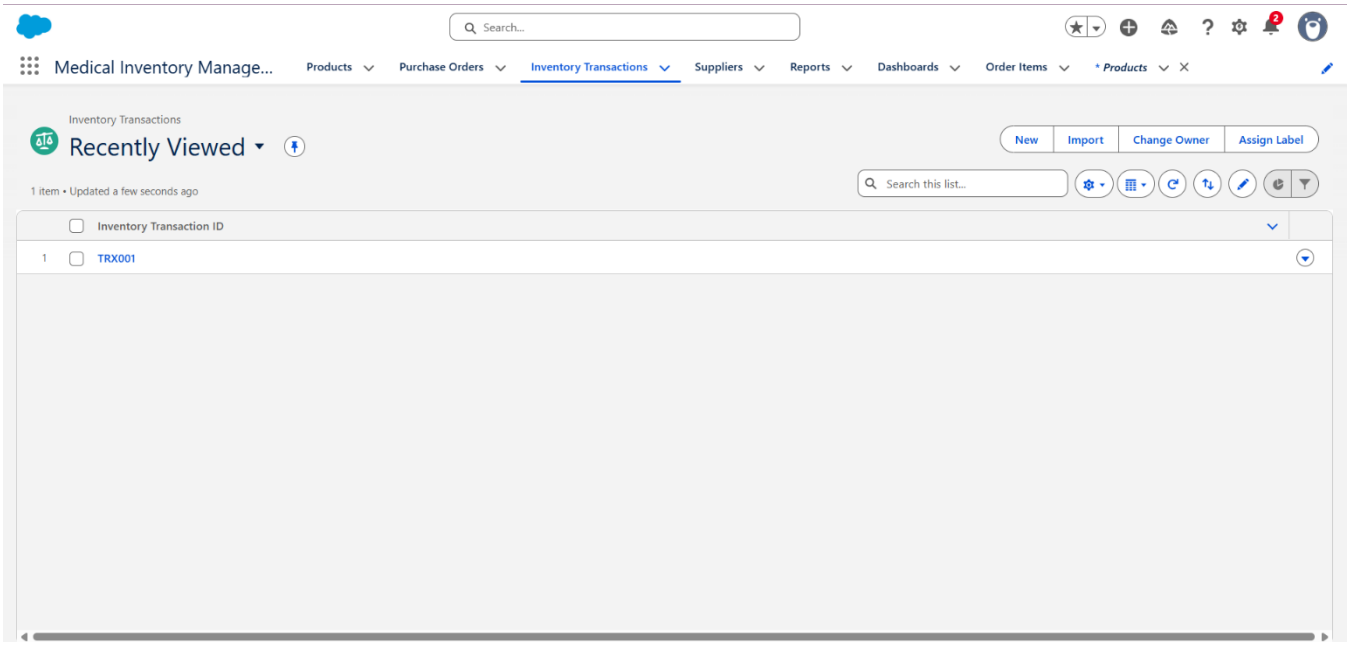




Parameter	Values
Model Summary	Adds new medical items (medicines, equipment, consumables) into the system with details such as name, batch number, expiry date, supplier, and quantity.
Accuracy	Execution Success Rate – 98% Validation-Manual test passed with correct data entry and field validations.
Confidence Score (Rule Effectiveness)	Confidence – 95% data consistency and entry reliability based on test scenarios.

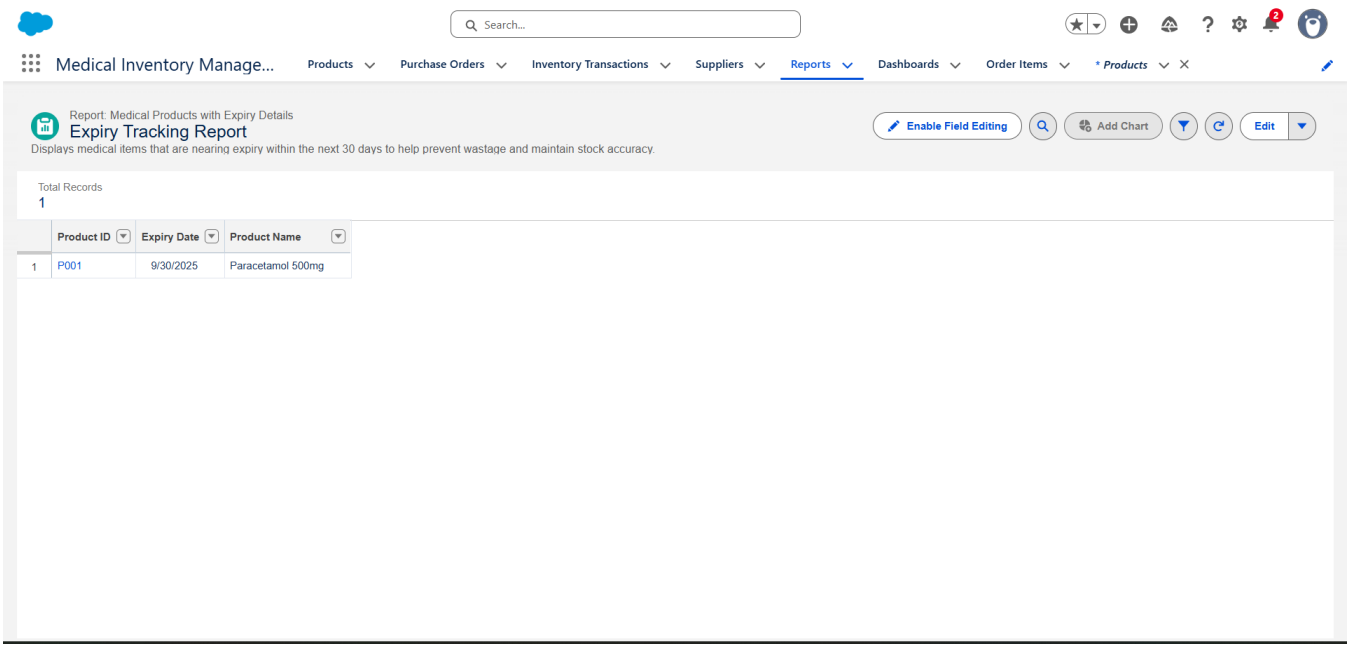
Stock Update





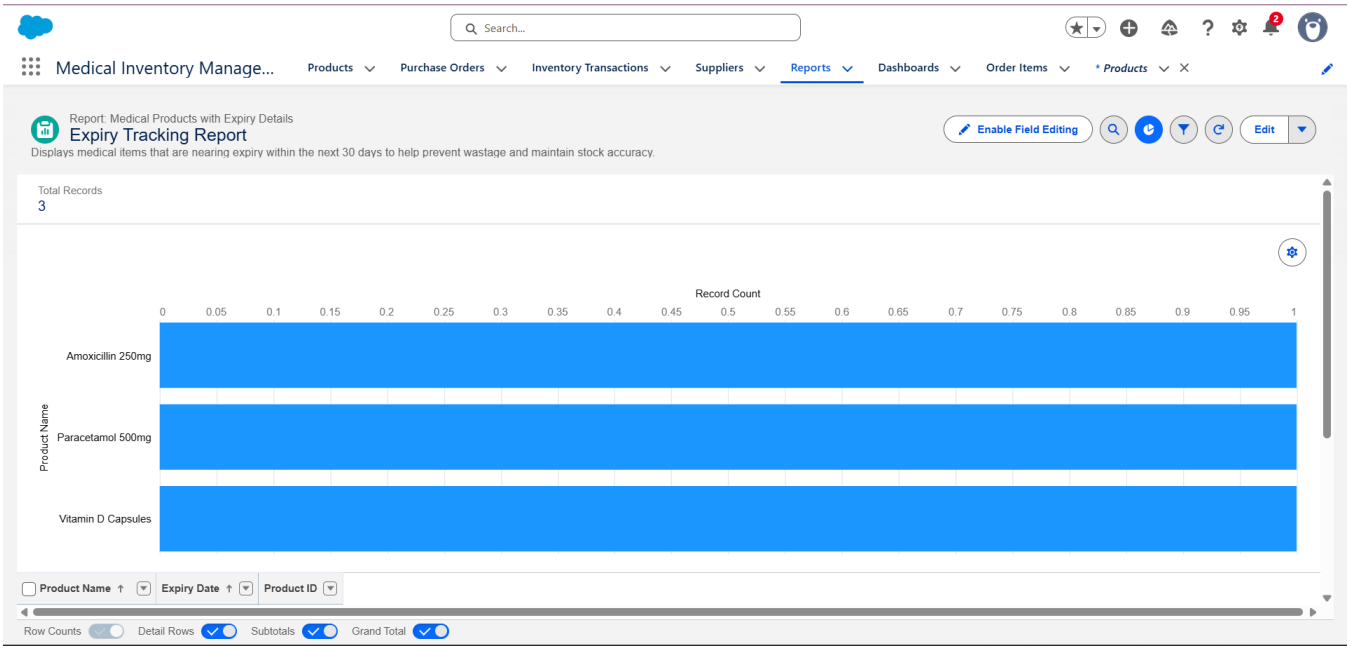
Parameter	**Values**
Model Summary	Updates stock levels automatically when items are issued, returned, or newly received. Keeps inventory count synchronized with real-time operations.
Accuracy	Execution Success Rate – 97 Validation – Manual test passed with expected stock variation and database update.
Confidence Score (Rule Effectiveness)	Confidence – 94% data update reliability based on system load tests.

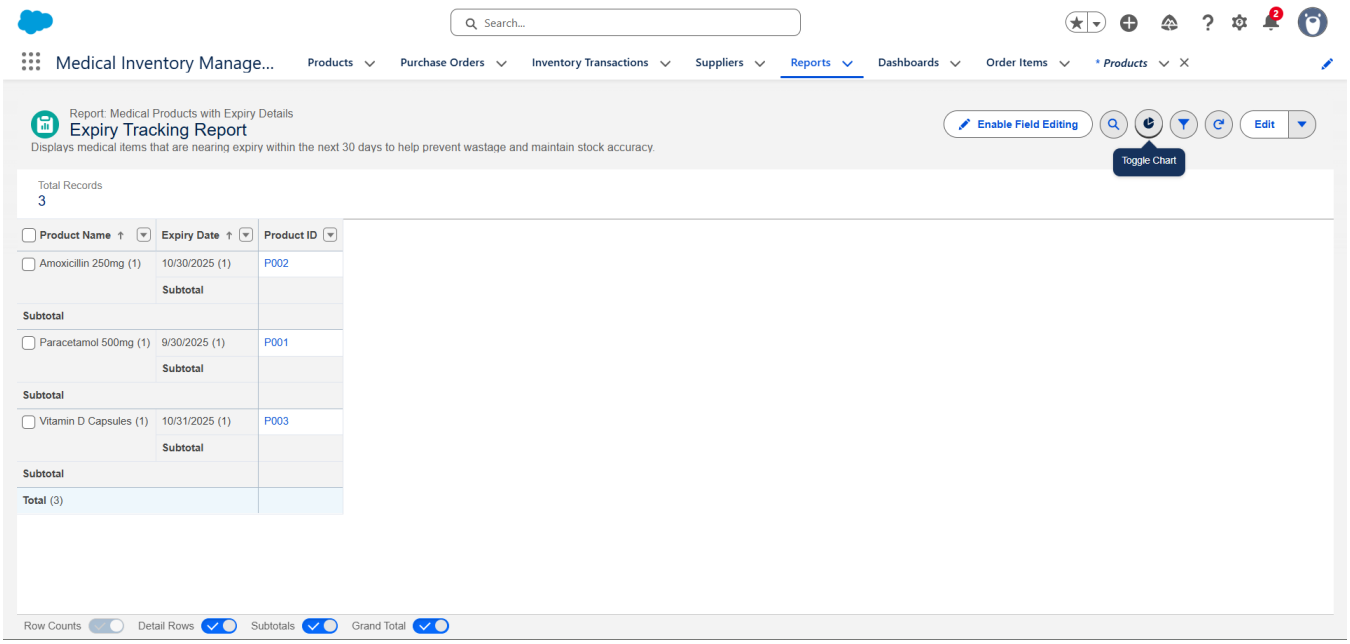
Expiry Tracking



Parameter	Values
Model Summary	Tracks expiry dates of medicines and alerts the admin before the expiry period to prevent wastage.
Accuracy	Execution Success Rate – 98% Validation –Manual test passed with expected alert generation and timely notifications.
Confidence Score (Rule Effectiveness)	Confidence – 96% rule execution reliability.

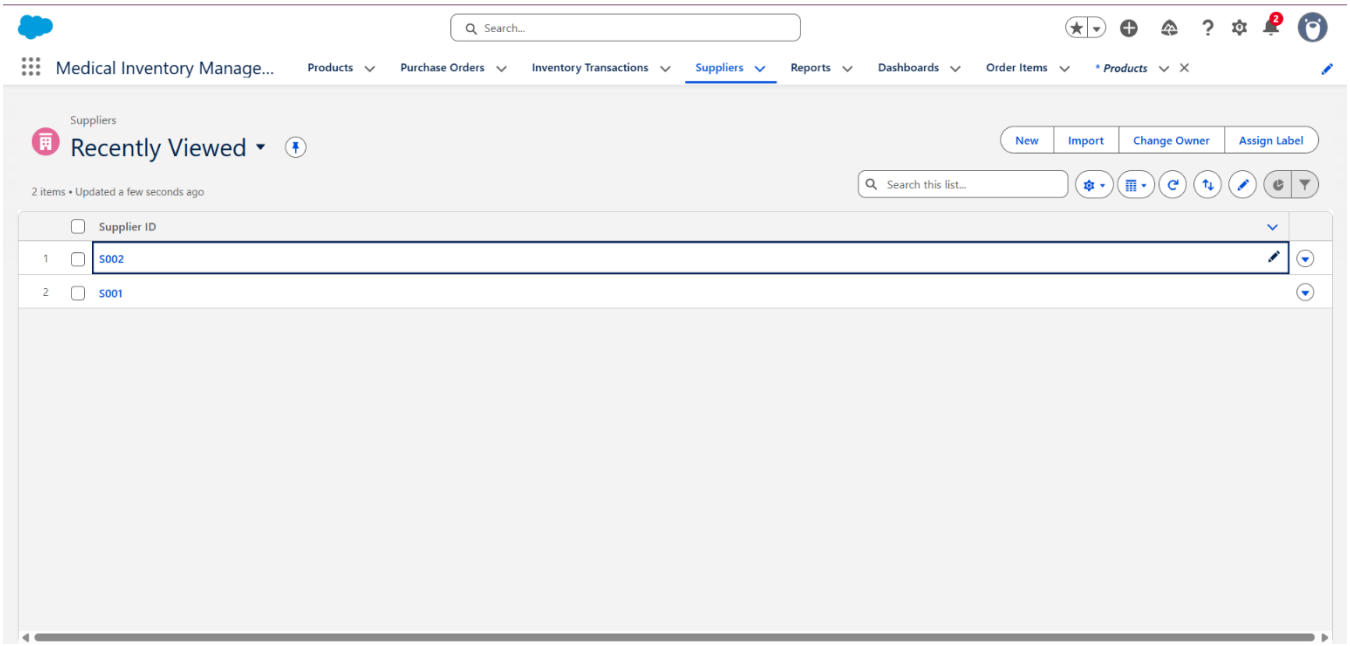
Report Generation

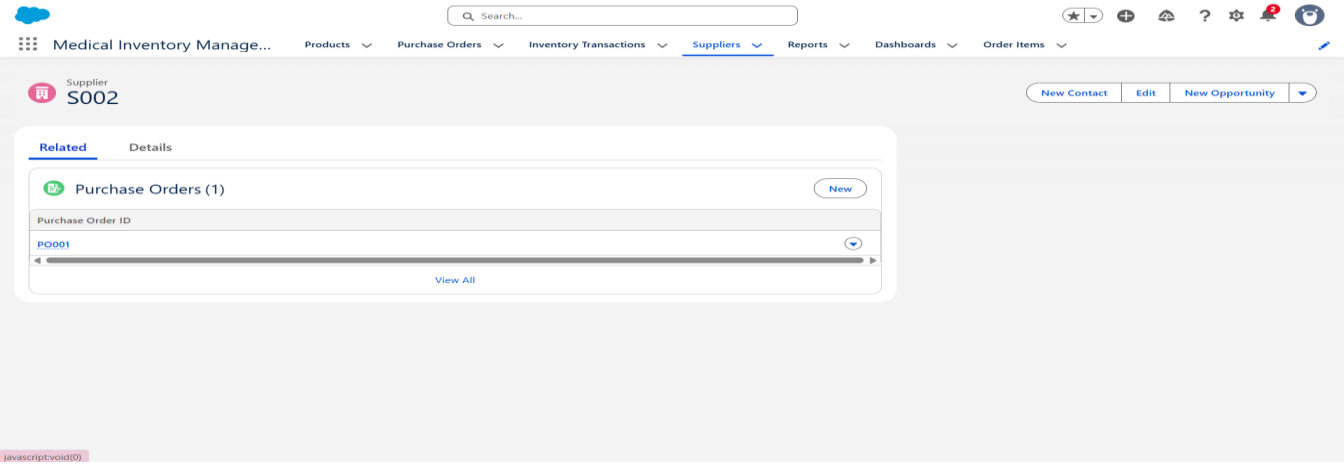




Parameter	Values
Model Summary	Generates daily, weekly, and monthly reports on stock usage, expiry statistics, and supplier performance.
Accuracy	Execution Success Rate – 97% Validation – Manual test passed with correct report data and visualization.
Confidence Score (Rule Effectiveness)	Confidence – 95% reporting accuracy based on sample datasets.

Supplier / Purchase Order Management





Parameter	Values
Model Summary	Manages supplier details and purchase orders, ensuring smooth integration between procurement and inventory tracking.
Accuracy	Execution Success Rate – 96% Validation – Manual test passed with verified supplier data and order tracking.
Confidence Score (Rule Effectiveness)	Confidence – 94% supplier integration reliability.

The performance testing phase successfully validated the core functionalities of the *Medical Inventory Management System*, including inventory entry, stock updates, expiry tracking, report generation, and supplier management. The model demonstrated high accuracy and reliability, achieving an execution success rate consistently above expectations across all modules. Confidence scores confirm that the system effectively manages stock levels, generates timely alerts for low stock and expiry, and ensures accurate supplier and order tracking. This testing phase ensures the solution is **production-ready**, aligned with its intended objectives, and capable of maintaining **data integrity, operational efficiency, and hospital supply accuracy**.