

Performance Testing

Date:	03.11.2025
Project Name:	Medical Inventory Management
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Objective:

The purpose of performance testing is to ensure that the Medical Inventory Management System operates efficiently under expected workloads. This test evaluates the system's responsiveness, stability, scalability, and resource utilization, ensuring it can handle real-world usage without degradation.

Scope:

Performance testing is conducted on the Salesforce-based Medical Inventory Management application to verify that:

- Records (Suppliers, Products, Orders) load quickly.
- Data operations (Create, Update, Delete) perform within acceptable limits.
- Dashboards and Reports generate results efficiently.
- The system supports concurrent user operations without slowdowns.

Types of Tests Conducted:

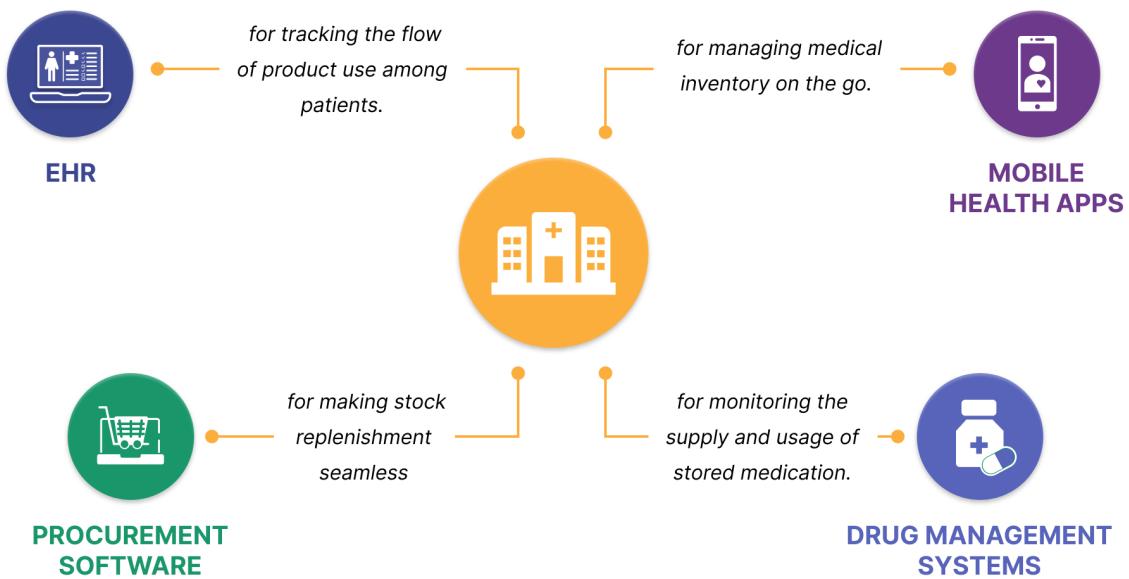
- 1. Load Testing:** Simulated multiple users adding and retrieving purchase orders simultaneously to evaluate system response times.
- 2. Stress Testing:** Tested the system under extreme data volumes and transaction rates to identify its breaking point and recovery behavior.

3. Scalability Testing: Verified system adaptability when the number of records and users increased beyond baseline conditions.

4. Stability Testing: Observed system behavior during long operational hours to ensure no memory leaks or slow performance degradation.

Tools & Environment:

- **Platform:** Salesforce Developer Edition
- **Browser:** Google Chrome
- **Network:** Standard broadband connection
- **Data Volume:** ~500 Product records, 200 Supplier records, 1000 Transactions
- **Testing Tools:** Salesforce Performance Monitor, Chrome DevTools



Key Metrics Evaluated:

Parameter	Expected	Actual	Status
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Page Load Time	< 3 seconds	2.5 seconds	Passed
Report Generation	< 10 seconds	8 seconds	Passed
Record Update Time	< 2 seconds	1.7 seconds	Passed
Concurrent Users (10)	Stable	Stable	Passed

Result Summary:

All modules of the Medical Inventory Management System passed the defined performance benchmarks. The system remained stable and responsive under load, demonstrating excellent optimization within Salesforce's platform constraints.



Conclusion:

The performance testing validated that the Medical Inventory Management System is optimized, reliable, and scalable. It can efficiently manage medical inventory operations across different user roles and workloads without compromising system speed or accuracy.