

Performance Testing

Title: Validation of System Speed, Accuracy, and Stability

Objective:

To ensure the Jewel Management system built on Salesforce performs efficiently under expected workloads, responds quickly, and behaves reliably across core features.


✔ Functional Testing

Purpose:

Validate that each component of the system functions as intended according to business requirements.

🔍 Test Scenarios and Results

| Test Case ID | Scenario | Expected Result | Status |
|--------------|------------------------------------------------------|--------------------------------------------|--------|
| TC-001 | Create a Jewel Customer record | Record is saved with valid email and phone | ✔ Pass |
| TC-002 | Create Item (Gold) with custom layout | Only gold-related fields are visible | ✔ Pass |
| TC-003 | Create Item (Silver) with custom layout | Only silver-related fields are visible | ✔ Pass |
| TC-004 | Submit Customer Order for selected customer and item | Record saves and references both correctly | ✔ Pass |
| TC-005 | Generate Billing from Customer Order | Amount is auto-calculated and saved | ✔ Pass |
| TC-006 | Billing record triggers an email notification (Flow) | Email sent to customer with item summary | ✔ Pass |
| TC-007 | Generate Reports (e.g., Items with Billing) | Relevant data displayed in report | ✔ Pass |






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|--------|-----------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------|
| TC-008 | View Dashboard with metrics | Dashboard loads correct data (e.g., Gold vs Silver) |  Pass |
|--------|-----------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------|

Performance Testing

Goal:

Ensure that the system performs within acceptable response times under a moderate to heavy load.

Metrics:

| Operation | Test Data Volume | Avg. Response Time | Expected Threshold | Status |
|-----------------------------------|------------------|--------------------|--------------------|--------------------------------------------------------------------------------------------|
| Page Load: Jewel Customer Layout | 1 record | 0.5 seconds | < 2 seconds |  Pass |
| Page Load: Item Layout (Gold) | 50 records | 0.9 seconds | < 2 seconds |  Pass |
| Flow Trigger: Billing Email | 100 triggers | 1.2 seconds | < 3 seconds |  Pass |
| Report Generation: Items + Orders | 500 records | 2.5 seconds | < 5 seconds |  Pass |
| Dashboard Load (Full Visual) | 1,000 records | 3.1 seconds | < 5 seconds |  Pass |

Tools Used:

- Salesforce Developer Console – to inspect logs and flow performance
- Debug Logs – to track flow execution times
- Manual Stopwatch – to simulate real-time responsiveness

Observations

- Flows performed efficiently even at higher record volumes.
 - Conditional visibility in layouts improved usability and reduced field clutter.
 - Dashboard performance remained stable up to 1,000 records.
 - No crashes, slowdowns, or data mismatches were observed.
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Bugs Discovered and Resolved

| Bug ID | Description | Resolution |
|---------|-------------------------------------------|------------------------------------------|
| BUG-001 | Flow failed if email field was left blank | Added validation rule for Email__c |
| BUG-002 | Billing record allowed zero quantity | Added required field validation on Order |

Testing Summary

The system passed all major functional and performance test cases. It is ready for production deployment with high reliability for small to medium jewelry businesses.