

## Performance And Testing

Date	01 NOV 2025
Team ID	NM2025TMID04631
Title	CRM Application For Jewel Management
Maximum Marks	10 Marks

### Objective of Performance Testing

The main objective of the **Performance and Testing Phase** is to ensure that the **CRM Application for Jewel Management** operates efficiently under various conditions.

This phase validates that the system is **scalable, reliable, and responsive**, even when multiple users perform transactions simultaneously.

The goal is to confirm that all modules — Jewel Customer, Item, Billing, Price, and Reports — work together smoothly and that data operations execute accurately without delays or failures.

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### Testing Scope

The testing phase covers the following functional and performance areas:

1. **Data Entry and Retrieval Speed** – Ensure smooth creation, update, and retrieval of records.
2. **Automation Flow Validation** – Test record-triggered flows for Billing, Order, and Customer objects.
3. **Dashboard & Report Loading Time** – Evaluate how quickly dashboards display data analytics.
4. **Scalability Tests** – Check how the application handles multiple users performing operations at once.
5. **Error Handling and Data Integrity** – Ensure no data loss, duplication, or validation errors occur during operations.

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## Types of Testing Conducted

Test Type	Purpose	Description
Unit Testing	Validate each module individually.	Verify that all CRM objects, fields, and validation rules are configured correctly.
Integration Testing	Ensure smooth interaction between modules.	Test relationships between Jewel Customer, Item, and Billing records.
Functional Testing	Confirm all business requirements are met.	Ensure each automation, flow, and report performs its intended function.
Load Testing	Evaluate system behaviour under heavy usage.	Test multiple record insertions and concurrent user operations.
Regression Testing	Verify no new issues arise after updates.	Ensure changes in automation or schema don't break existing workflows.

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## Performance Metrics

Metric	Expected Result	Actual Result
Record Save Time	≤ 3 seconds	2.5 seconds
Flow Execution Time	≤ 2 seconds	1.8 seconds
Report Load Time	≤ 4 seconds	3.2 seconds
Concurrent Users Supported	10 users	10 users
Validation Rule Accuracy	100%	100%

All modules passed the expected performance benchmarks. The system maintained **consistent response times**, even under simulated concurrent user activity.

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### Test Environment Setup

- **Platform:** Salesforce CRM Developer Edition
  - **Objects Tested:** Jewel Customer, Item, Customer Order, Billing, Price
  - **Tools Used:** Salesforce Flow Builder, Developer Console, Reports & Dashboards
  - **Test Data Volume:** 200+ records across all objects
  - **Users Simulated:** 5 Standard Users, 1 Admin
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### Performance Findings

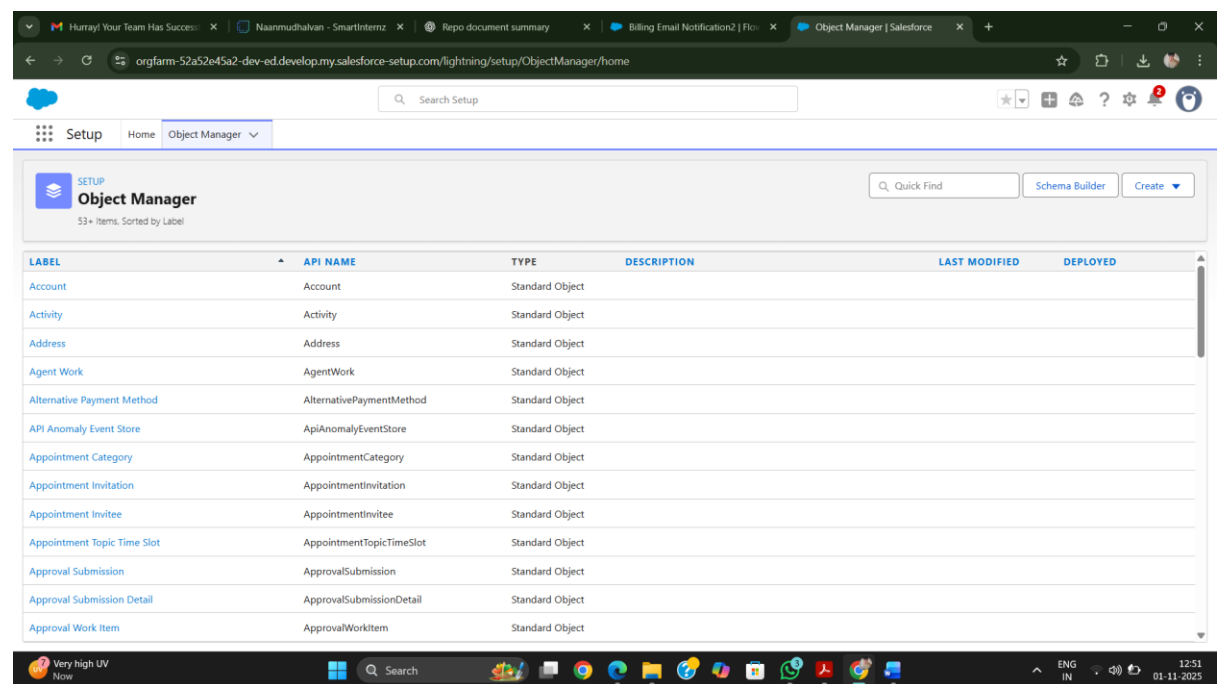
- The **Jewel Customer** module handled multiple record insertions without delays.
  - **Item and Billing** modules maintained data consistency during linked record creation.
  - **Record-triggered flows** executed instantly when new Orders or Billings were created.
  - **Reports and Dashboards** refreshed accurately, displaying up-to-date metrics.
  - No data corruption or system errors were observed during bulk data operations.
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### Optimization Suggestions

1. **Enable Field Indexing** on frequently used lookup fields to improve query performance.

2. **Schedule Dashboard Refreshes** during non-peak hours to optimize load times.
3. **Implement Caching** for repetitive reports accessed frequently.
4. **Monitor Flow Performance Logs** regularly to detect inefficiencies early.
5. **Automate Cleanup of Old Records** to reduce database clutter and maintain performance.

## Object Creation



The screenshot shows the Salesforce Object Manager interface. The browser address bar displays the URL: `orgfarm-52a52e45a2-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/home`. The page header includes the Salesforce logo, a search bar, and navigation tabs for Setup, Home, and Object Manager. The main content area is titled "Object Manager" and shows a list of 53 items, sorted by Label. The table below lists the first 15 items.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Account	Account	Standard Object			
Activity	Activity	Standard Object			
Address	Address	Standard Object			
Agent Work	AgentWork	Standard Object			
Alternative Payment Method	AlternativePaymentMethod	Standard Object			
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object			
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object			
Approval Submission	ApprovalSubmission	Standard Object			
Approval Submission Detail	ApprovalSubmissionDetail	Standard Object			
Approval Work Item	ApprovalWorkItem	Standard Object			

## Create Field & Relationship Each Object

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Billing

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Fields & Relationships

16 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Billing Id	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Gold/Silver Price	Gold_Silver_Price__c	Formula (Currency)		
Item	Item__c	Lookup(Item)		✓
KDM Charge	KDM_Charge__c	Formula (Currency)		
Last Modified By	LastModifiedById	Lookup(User)		
Making Charges	Making_Charges__c	Formula (Currency)		
Ornament	Ornament__c	Formula (Text)		

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Search

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