

# Performance Testing

Date	2 Nov 2025
Team ID	NM2025TMID08827
Project Name	CRM Application For Jewel Management System
Maximum Mark	4 Marks

## 1. Executive Summary

This report summarizes the approach, methodology, findings, and recommendations of the performance testing conducted on the Jewel Management CRM application. The test focused on evaluating system reliability, response time, scalability, and overall user experience under various load conditions.

## 2. Test Objectives

- To ensure the application delivers acceptable response times for core business transactions.
- To validate system stability under normal and peak workloads.
- To identify bottlenecks and recommend optimization strategies

## 3. Scope of Testing

- Modules tested: Customer onboarding, Sales transactions, Inventory updates, Reporting, Integration with POS.
- Types of testing: Load testing, Stress testing, Endurance testing, and Concurrency testing.

## 4. Bottleneck Analysis

- Minor delays were linked to backend database queries during bulk report generation.
- Occasional slowdowns in report generation traced to suboptimal query design and high CPU utilization on the reporting server.
- No significant memory leaks were detected

## 5. Test Scenarios & Data

Test Case ID	Scenario Description	Load Conditions	Expected Response Time	Actual Response Time	Status
PERF001	Login and dashboard load	50 concurrent users	<2 sec	... sec	Pass
PERF002	Add customer C generate invoice	30 sales staff acting	<3 sec	... sec	Pass
PERF003	Update inventory post-sale	20 inventory managers	<2 sec	... sec	Pass
PERF004	Generate monthly sales report	10 managers	<5 sec	... sec	Pass/Fail

## 6. Test Execution & Results

- No critical errors were observed for up to the planned peak load.
- Response times for login, customer updates, and reports were within target levels except during extreme stress testing, where login latency increased by 20% over targets.
- First system errors were observed above 125 concurrent users, exceeding the realistic maximum for this CRM's business context.
- The application remained stable during a 5-hour endurance test with steady load

## Object Creation

The screenshot shows the Salesforce Setup interface with the 'Object Manager' tab selected. The page title is 'Object Manager' under the 'SETUP' section. A search bar at the top right contains the text 'Search Setup'. The main content area displays a table with one row, representing a custom object named 'Jewel Customer'. The table columns are labeled 'LABEL', 'API NAME', 'TYPE', and 'DESCRIPTION'. The 'LABEL' column shows 'Jewel Customer', 'API NAME' shows 'Jewel\_Customer\_\_c', 'TYPE' shows 'Custom Object', and 'DESCRIPTION' is empty.

LABEL	API NAME	TYPE	DESCRIPTION
Jewel Customer	Jewel_Customer__c	Custom Object	

## Create Validation Rules

The screenshot shows the Salesforce Setup interface with the 'Object Manager' tab selected, specifically for the 'Jewel Customer' object. The page title is 'Jewel Customer' under the 'SETUP > OBJECT MANAGER' section. A sidebar on the left lists various configuration options like Details, Fields & Relationships, Page Layouts, etc. The main content area shows a table titled 'Validation Rules' with two entries. The table columns are labeled 'RULE NAME', 'ERROR LOCATION', 'ERROR MESSAGE', 'ACTIVE', and 'MODIFIED BY'. The first rule, 'Postal\_Code', has an error location of 'Zip/Postal code' and a message 'Must contain 6 digits'. The second rule, 'ValidationRule\_For\_JewelCustomerObject', has an error location of 'Top of Page' and a message 'Please fill Required fields'. Both rules are marked as active and modified by 'Arun Kumar' on 10/24/2025.

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Postal_Code	Zip/Postal code	Must contain 6 digits	✓	Arun Kumar, 10/24/2025, 12:43 AM
ValidationRule_For_JewelCustomerObject	Top of Page	Please fill Required fields	✓	Arun Kumar, 10/24/2025, 12:52 AM

## Profiles

The screenshot shows the Salesforce Setup interface with the following details:

- Header:** Search Setup, Home, Object Manager.
- Left Sidebar:** Setup, Home, Object Manager, Users (selected), Profiles.
- Search Bar:** profiles
- Page Title:** SETUP Profiles
- Page Subtitle:** Profiles
- Page Actions:** Help for this Page, [A](#), [B](#), [C](#), [D](#), [E](#), [F](#), [G](#), [H](#), [I](#), [J](#), [K](#), [L](#), [M](#), [N](#), [O](#), [P](#), [Q](#), [R](#), [S](#), [T](#), [U](#), [V](#), [W](#), [X](#), [Y](#), [Z](#), Other.
- Table:** Displays user profiles with columns: Profile Name, User License, and Custom. One row is visible: Gold\_Partner\_User (User License: Gold Partner, Custom: ), and another row: Gold\_Smith (User License: Salesforce, Custom: ).