

Phase 10: Quality Assurance Testing

Testing Overview

The goal of this phase is to verify that all **functional, automation, and security features** of the Loan Origination System perform correctly.

Testing was conducted on each component — objects, workflows, approval processes, flows, triggers, and validation rules — using **test data** created in Salesforce.

Test Case Scenarios

Below are sample, well-structured test cases you can include in your documentation (with placeholders for screenshots).

Test Case 1: Loan Application Record Creation

Field	Description
Use Case	Verify if a Loan Application record can be successfully created.
Test Steps	<ol style="list-style-type: none">1. Go to Loan Applications tab.2. Click “New.”3. Enter Applicant details (Name, Loan Type, Loan Amount, Income).4. Click “Save.”
Expected Result	New Loan Application record should be created and displayed in the list view.
Actual Result	Record created successfully with auto-generated Loan ID.

Test Case 2: Validation Rule for Loan Amount vs Income

Field	Description
Use Case	Ensure the validation rule prevents saving when Loan Amount > Income.
Test Steps	<ol style="list-style-type: none">1. Create new Loan Application.2. Enter Loan Amount = ₹1,00,000 and Income = ₹50,000.3. Click “Save.”
Expected Result	System displays error message: “ <i>Loan amount cannot exceed applicant’s income.</i> ”

Field	Description
Actual Result	Validation message displayed as expected.

Test Case 3: Approval Process

Field	Description
Use Case	Verify that Loan Approval Process triggers correctly.
Test Steps	<ol style="list-style-type: none"> 1. Submit Loan Application for approval. 2. Approver (Loan Officer) receives request. 3. Approve the request.

Expected Result Loan Status changes from *Submitted* → *Approved*.

Actual Result Status updated successfully after approval.

Test Case 4: Automatic Task Creation

Field	Description
Use Case	Test if a task is automatically created after loan approval.
Test Steps	<ol style="list-style-type: none"> 1. Approve a Loan Application. 2. Open “Tasks” tab. 3. Check if a new follow-up task is generated.
Expected Result	Task with subject “Contact Applicant for Document Verification” should be created.
Actual Result	Task created successfully for assigned Loan Officer.

Test Case 5: Flow Automation (Record-Triggered Flow)

Field	Description
Use Case	Verify Flow creates EMI_Detail record when Loan is approved.
Test Steps	<ol style="list-style-type: none"> 1. Update Loan Status = “Approved.” 2. Save record. 3. Check EMI Details related list.

Expected Result New EMI_Detail record created automatically.

Actual Result EMI record successfully generated.

Test Case 6: Trigger Functionality

Field	Description
Use Case	Verify Trigger executes logic after update.
Test Steps	<ol style="list-style-type: none"> 1. Update Loan record status from <i>Pending</i> to <i>Approved</i>. 2. Check if trigger runs and creates EMI record.
Expected Result	Trigger logic executes and inserts EMI_Detail__c record.
Actual Result	EMI record successfully inserted.

Test Case 7: Report & Dashboard Verification

Field	Description
Use Case	Ensure Reports and Dashboards display correct loan statistics.
Test Steps	<ol style="list-style-type: none"> 1. Open “Loan Performance Dashboard.” 2. Review widgets (Loan Status, Loan Type).
Expected Result	Data displayed matches the Loan Application records.
Actual Result	Dashboard updated with accurate metrics.

Test Case 8: Security Testing (Profiles & FLS)

Field	Description
Use Case	Verify that users with “Loan Officer” profile cannot view applicant income fields.
Test Steps	<ol style="list-style-type: none"> 1. Login as Loan Officer. 2. Open Loan Application record.
Expected Result	Field “Applicant Income” should not be visible.
Actual Result	Field hidden as per Field-Level Security settings.

Test Case 9: Integration Callout

Field	Description
Use Case	Validate REST callout retrieves credit score from external API.
Test Steps	<ol style="list-style-type: none"> 1. Execute callout from Developer Console. 2. Check debug logs.
Expected Result	Response received with applicant’s credit score.
Actual Result	Response successfully fetched from mock API.

Test Case 10: Data Loader Verification

Field	Description
Use Case	Ensure Data Loader successfully inserts bulk records.
Test Steps	<ol style="list-style-type: none"> 1. Load CSV with EMI records. 2. Verify success in results log.

Expected Result All records inserted without errors.

Summary of Test Results

Module	Test Area	Status
Loan Application	Record Creation & Validation	<input checked="" type="checkbox"/> Passed
Approval Workflow	Approval Process	<input checked="" type="checkbox"/> Passed
Automation	Flows & Triggers	<input checked="" type="checkbox"/> Passed
Reports	Dashboard Accuracy	<input checked="" type="checkbox"/> Passed
Security	Profile & FLS Restrictions	<input checked="" type="checkbox"/> Passed
Integration	External API Callout	<input checked="" type="checkbox"/> Passed
Data Management	Data Loader Import	<input checked="" type="checkbox"/> Passed

Testing Outcome

All implemented Salesforce components were successfully validated. The system passed both **functional** and **security tests**, ensuring reliability, accuracy, and compliance with project requirements.

🏁 Project Conclusion

The **Banking Loan Origination & Approval Workflow** project successfully achieved its goal of automating the **loan management process** in Salesforce.

◆ Key Achievements:

- Automated end-to-end loan approval workflow using **Flows, Approvals, and Triggers**.
- Developed a **Lightning App** with user-friendly **LWC interface (EMI Calculator)**.
- Integrated with **external APIs** using REST callouts and Named Credentials.
- Implemented comprehensive **Reports, Dashboards, and Security Controls**.
- Verified system reliability through **Quality Assurance Testing**.