

## **Phase 4: Process Automation (Admin)**

In this phase, various Salesforce automation tools were configured and implemented in the Corporate Loan Management System (CLMS).

The purpose of these automations is to ensure smooth processing of loan applications, enforce business rules, reduce manual effort, and provide real-time updates to different stakeholders involved in the loan lifecycle.

The tools used include:

- Validation Rules
- Workflow Rules
- Process Builder
- Approval Process
- Flow Builder (evaluated)
- Email Alerts
- Field Updates
- Tasks
- Custom Notifications

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### ◆ Validation Rules

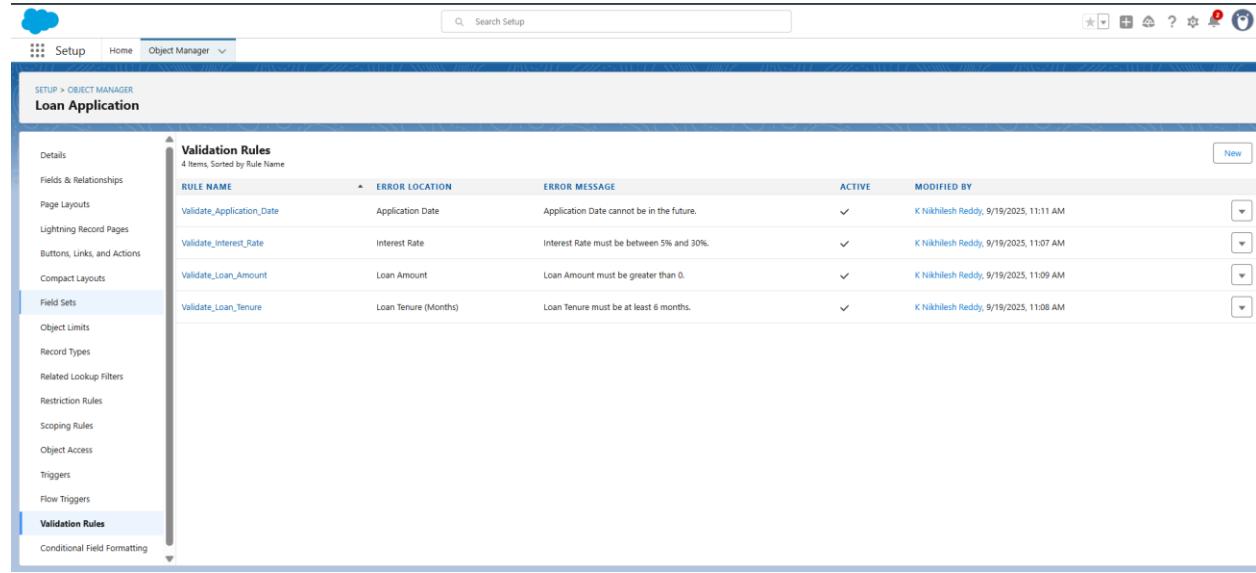
Validation Rules were created on the Loan Application object to ensure data accuracy and enforce corporate policies. These rules prevent users from saving invalid data.

- Loan Amount Validation → Loan Amount must be greater than zero.
- Loan Tenure Validation → Tenure must be at least 6 months.
- Interest Rate Validation → Interest rate must be between 5% and 30%.

- Application Date Validation → Application date cannot be in the future.

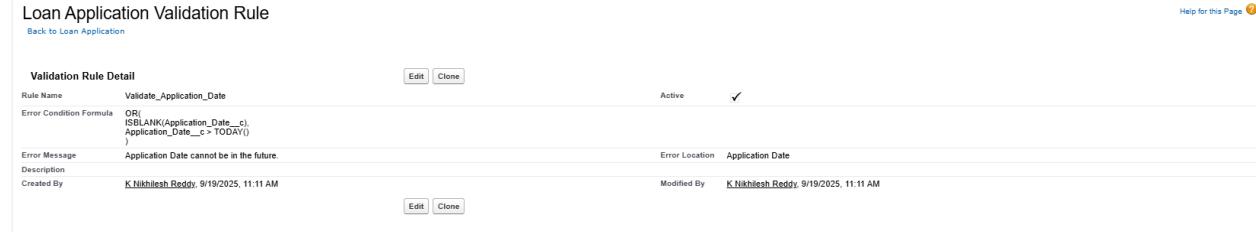
Outcome: Invalid or inconsistent data cannot be saved, which maintains high data integrity.

## Screenshot:

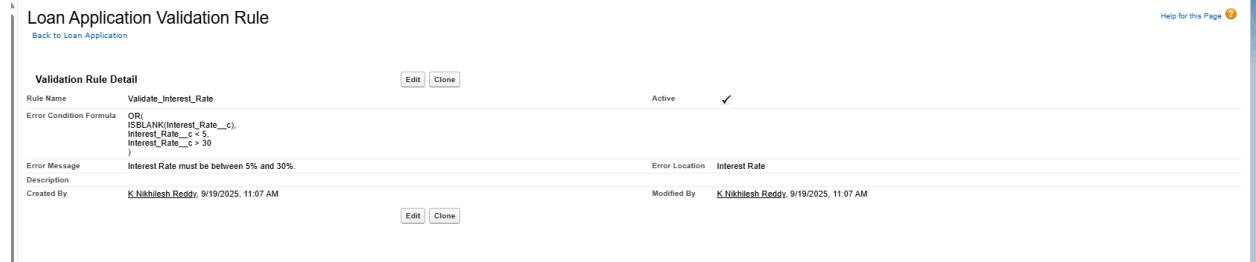


The screenshot shows the Salesforce Setup interface for the 'Loan Application' object. The left sidebar lists various configuration options like Details, Fields & Relationships, Page Layouts, etc., with 'Validation Rules' selected. The main content area displays a table titled 'Validation Rules' with 4 items. The table columns are: Rule Name, Error Location, Error Message, Active, and Modified By. The rules listed are:

| Rule Name                 | Error Location       | Error Message                             | Active | Modified By                            |
|---------------------------|----------------------|---|--------|--|
| Validate_Application_Date | Application Date     | Application Date cannot be in the future. | ✓      | K Nikhilesh Reddy, 9/19/2025, 11:11 AM |
| Validate_Interest_Rate    | Interest Rate        | Interest Rate must be between 5% and 30%. | ✓      | K Nikhilesh Reddy, 9/19/2025, 11:07 AM |
| Validate_Loan_Amount      | Loan Amount          | Loan Amount must be greater than 0.       | ✓      | K Nikhilesh Reddy, 9/19/2025, 11:09 AM |
| Validate_Loan_Tenure      | Loan Tenure (Months) | Loan Tenure must be at least 6 months.    | ✓      | K Nikhilesh Reddy, 9/19/2025, 11:08 AM |

This screenshot shows the 'Loan Application Validation Rule' detail page for the rule 'Validate\_Application\_Date'. The 'Validation Rule Detail' section includes fields for Rule Name (Validate\_Application\_Date), Error Condition Formula (OR( ISBLANK(Application\_Date\_\_c), Application\_Date\_\_c > TODAY() )), Error Message (Application Date cannot be in the future.), Description (K Nikhilesh Reddy, 9/19/2025, 11:11 AM), and Created By (K Nikhilesh Reddy). The rule is marked as Active.

This screenshot shows the 'Loan Application Validation Rule' detail page for the rule 'Validate\_Interest\_Rate'. The 'Validation Rule Detail' section includes fields for Rule Name (Validate\_Interest\_Rate), Error Condition Formula (OR( ISBLANK(Interest\_Rate\_\_c), Interest\_Rate\_\_c < 5, Interest\_Rate\_\_c > 30 )), Error Message (Interest Rate must be between 5% and 30%), Description (K Nikhilesh Reddy, 9/19/2025, 11:07 AM), and Created By (K Nikhilesh Reddy). The rule is marked as Active.

**Loan Application Validation Rule**

[Back to Loan Application](#)

| Validation Rule Detail  |  | <a href="#">Edit</a> | <a href="#">Clone</a>                  |
|-------------------------|--|----------------------|--|
| Rule Name               | Validate_Loan_Amount                   | Active               | <input checked="" type="checkbox"/>    |
| Error Condition Formula | Loan_Amount__c <= 0                    | Error Location       | Loan Amount                            |
| Error Message           | Loan Amount must be greater than 0.    |                      |  |
| Description             |  |                      |  |
| Created By              | K Nikhilesh Reddy, 9/19/2025, 10:32 AM | Modified By          | K Nikhilesh Reddy, 9/19/2025, 11:09 AM |
|                         |  | <a href="#">Edit</a> | <a href="#">Clone</a>                  |

**Loan Application Validation Rule**

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| Validation Rule Detail  |  | <a href="#">Edit</a> | <a href="#">Clone</a>                  |
|-------------------------|--|----------------------|--|
| Rule Name               | Validate_Loan_Tenure                   | Active               | <input checked="" type="checkbox"/>    |
| Error Condition Formula | Loan_Tenure_Months__c < 6              | Error Location       | Loan Tenure (Months)                   |
| Error Message           | Loan Tenure must be at least 6 months. |                      |  |
| Description             |  |                      |  |
| Created By              | K Nikhilesh Reddy, 9/19/2025, 11:02 AM | Modified By          | K Nikhilesh Reddy, 9/19/2025, 11:08 AM |
|                         |  | <a href="#">Edit</a> | <a href="#">Clone</a>                  |

## ◆ Workflow Rules

Workflow Rules were implemented to automate routine actions triggered on Loan Applications.

- Workflow 1: Email on Loan Approval
  - Trigger: Status = Approved by Branch Manager
  - Action: Sends automated Loan Approval Email to Loan Officer
- Workflow 2: Approval Date Auto-update
  - Trigger: Status = Approved by Branch Manager
  - Action: Updates Approval\_Date\_\_c with TODAY()
- Workflow 3: Task Assignment to Finance Officer
  - Trigger: Status = Approved by Branch Manager

- Action: Creates a Task “Disburse Loan Amount” for Finance Officer (due next day)

**Outcome:** Loan Officers are notified, approval timelines are recorded, and Finance Officers are reminded to disburse funds.

Screenshot:

The first screenshot shows the "All Workflow Rules" page. It displays three rules:

| Action                  | Rule Name           | Description | Object           | Active |
|-------------------------|---------------------|-------------|------------------|--------|
| Edit   Del   Deactivate | Disburse_Loan_Task  |             | Loan Application | ✓      |
| Edit   Del   Deactivate | Loan_Approved_Email |             | Loan Application | ✓      |
| Edit   Del   Deactivate | Set_Approval_Date   |             | Loan Application | ✓      |

The second screenshot shows the "Workflow Rule Detail" for the "Disburse\_Loan\_Task" rule. The rule details are:

| Rule Name  | Object                                 | Evaluation Criteria  |
|--|--|--|
| Disburse_Loan_Task   | Loan Application                       | Evaluate the rule when a record is created, and any time it's edited to subsequently meet criteria |
| Active   | Object                                 |  |
| Description  | Evaluation Criteria                    |  |
| Rule Criteria  | Created By                             | Modified By  |
| Loan Application: Status EQUALS Approved by Branch Manager | K.Nikhilash Reddy, 9/19/2025, 12:24 PM | K.Nikhilash Reddy, 9/23/2025, 6:00 AM  |

Workflow Actions section:

- Immediate Workflow Actions: Task Type, Description: Disburse Loan Amount
- Time-Dependent Workflow Actions: See an example, Note: You cannot add new time triggers to an active rule. Deactivate This Rule

## ◆ Process Builder

Process Builder was used for advanced automation that required creating related records.

- Process: Loan Approval Process
  - Object: Loan Application
  - Trigger: Status = Approved by Branch Manager
  - Action: Create EMI Schedule record with:

- Loan Application linked to approved Loan
- EMI Amount =  $\text{Loan Amount} \div \text{Loan Tenure}$
- Due Date = Today + 30 days
- Status = Pending

Outcome: EMI Schedules are generated automatically upon loan approval.

## Screenshot:

Go with the flow! With Flow Builder, the future of low-code automation, you can do everything you do with Process Builder—and more! Salesforce plans to retire Process Builder and recommends building automation in Flow Builder.

Process Builder

My Processes

| PROCESS                          | DESCRIPTION  | OBJECT           | PROCESS TYPE  | LAST MODIFIED | STATUS | ACTIONS |
|----------------------------------|--|------------------|---------------|---------------|--------|---------|
| Loan Approval Process            |  | Loan Application | Record Change | 9/22/2025     | Active |         |
| Loan Status Notification Process | Sends in-app notifications when loan is approved or r... | Loan Application | Record Change | 9/22/2025     | Active |         |

Try Flow Builder | Use Migrate To Flow Tool

← Back To Setup ? Help New

Process Builder - Loan Approval Process

Expand All Collapse All

```
graph TD; START([START]) --> LoanApplication[Loan Application]; LoanApplication --> LoanApproved{Loan Approved}; LoanApproved -- TRUE --> CreateEMISchedule[Create EMI Schedule]; CreateEMISchedule --> STOP1([STOP]); LoanApproved -- FALSE --> AddCriteria{+ Add Criteria}; AddCriteria -- TRUE --> AddAction[+ Add Action]; AddAction --> STOP2([STOP]); AddCriteria -- FALSE --> STOP3([STOP]);
```

The screenshot shows the Salesforce Process Builder interface. At the top, there's a banner with a message about Flow Builder. Below it, the 'My Processes' section lists two active processes: 'Loan Approval Process' and 'Loan Status Notification Process'. The main area displays the 'Process Builder - Loan Approval Process' flowchart. The flow starts with a 'START' node, followed by a 'Loan Application' action. This leads to a decision diamond 'Loan Approved'. If 'TRUE', it branches to an 'IMMEDIATE ACTIONS' section containing 'Create EMI Schedule', which then leads to a 'STOP' node. If 'FALSE', it branches to another decision diamond '+ Add Criteria'. If '+ Add Criteria' is 'TRUE', it branches to an 'IMMEDIATE ACTIONS' section containing '+ Add Action', which then leads to a 'STOP' node. If '+ Add Criteria' is 'FALSE', it leads directly to a final 'STOP' node.

## ◆ Approval Process

Approval Process was created to define hierarchical loan approval.

- Step 1: Credit Manager Review → Status = Pending → Approver = Credit Manager.
- Step 2: Branch Manager Review → Status = Approved by Credit Manager → Approver = Branch Manager.
- Final Approval Action: Status updated to Approved by Branch Manager → triggers Workflow Rules + EMI creation.
- Final Rejection Action: Status updated to Rejected → Loan Officer notified (optional rejection email).

Outcome: Loans follow a structured, hierarchical approval chain (Loan Officer → Credit Manager → Branch Manager).

Screenshot:

The screenshot shows the 'Approval Processes' page with the following details:

**Process Definition Detail**

- Process Name: Loan Approval Process
- Unique Name: Loan\_Approval\_Process
- Description: Loan Application: Status EQUALS Pending
- Entry Criteria: Administrator ONLY
- Record Editability: Allow Submitters to Recall Approval Requests (unchecked)
- Approval Assignment Email Template: Initial Submitters
- Initial Submitters: Loan Application Owner
- Created By: K.Nikhilesh Reddy, 9/22/2025, 4:00 AM
- Modified By: K.Nikhilesh Reddy, 9/22/2025, 4:14 AM

**Initial Submission Actions**

- Action Type: Record Lock
- Description: Lock the record from being edited

**Approval Steps**

| Action              | Step Number | Name                  | Description | Criteria   | Assigned Approver   | Reject Behavior |
|---------------------|-------------|-----------------------|-------------|--|---------------------|-----------------|
| Show Actions   Edit | 1           | Step 1                |             |  | User:Credit Manager | Final Rejection |
| Show Actions   Edit | 2           | Branch Manager Review |             | Loan Application: Status EQUALS Approved by Credit Manager | User:Branch Manager | Final Rejection |

**Final Approval Actions**

- Action Type: Record Lock
- Description: Lock the record from being edited
- Action Type: Field Update
- Description: Set Status Approved by Branch Manager

**Final Approval Actions**

- Action Type: Record Lock
- Description: Lock the record from being edited
- Action Type: Field Update
- Description: Set Status Approved by Branch Manager

**Final Rejection Actions**

- Action Type: Record Lock
- Description: Unlock the record for editing
- Action Type: Field Update
- Description: Set Status Rejected

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- ◆ Flow Builder (Screen, Record-Triggered, Scheduled, Auto-launched)

Flow Builder was evaluated but not used in this project to avoid redundancy.

- Workflow Rules and Process Builder were sufficient for the required automations.
- Flow Builder can be used in future enhancements (guided screens, scheduled updates).

Outcome: The automation design remains simple but scalable.

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- ◆ Email Alerts

Email Alerts notify stakeholders of important loan lifecycle events.

- Loan Approval Email → Sent to Loan Officer

Outcome: Ensures transparency and timely communication.

Screenshot:

The screenshot shows the Salesforce 'Email Alerts' page. At the top, there's a 'SETUP' button and a 'Email Alerts' tab. Below the header, the page title is 'Email Alert' followed by a description: 'Email notification when Loan Application is approved by Branch Manager'. There are three tabs at the top right: 'Help for this Page', 'Rules Using This Email Alert', 'Approval Processes Using This Email Alert', and 'Entitlement Processes Using This Email Alert'. The main section is titled 'Email Alert Detail' and contains the following fields:

- Description: Email notification when Loan Application is approved by Branch Manager
- Unique Name: Loan\_Approval\_Email
- From Email Address: Current User's email address
- Recipients: User\_Loan Officer
- Additional Emails: K.Nikhilesh.Reddy, 9/19/2025, 11:54 AM
- Created By: K.Nikhilesh.Reddy, 9/19/2025, 11:54 AM

Below these fields are 'Edit', 'Delete', and 'Clone' buttons. To the right, there are 'Email Template' (Loan Approval Email) and 'Object' (Loan Application) settings. At the bottom of the detail section are three more buttons: 'Edit', 'Delete', and 'Clone'. The page also includes sections for 'Rules Using This Email Alert', 'Approval Processes Using This Email Alert', 'Entitlement Processes Using This Email Alert', and 'Flows Using This Email Alert', each with their respective descriptions and tables.

**Classic Email Templates**

Unfiled Public Classic Email Templates

Help for this Page ⓘ

Classic Email Template Availability [Expand]

Folder: Unfiled Public Classic Email Templates | Create New Folder

| Action     | Email Template Name | Template Type | Available For Use | Description | Author | Last Modified Date |
|------------|---------------------|---------------|-------------------|-------------|--------|--------------------|
| Edit   Del | Loan Approval Email | HTML          | ✓                 |             | BIK    | 9/19/2025          |

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 | All

Plain Text Preview

```
Dear {!Loan_Application__c_Customer_Name__c}.

Your Loan Application # {!Loan_Application__c_Name} for an amount of {!Loan_Application__c_Loan_Amount__c} has been Approved by Branch Manager.

Regards,
CLMS Team
```

## ◆ Field Updates

Field Updates were configured to ensure data accuracy.

- Approval\_Date\_\_c auto-updated with TODAY() when loan is approved.

Outcome: Approval timelines are tracked automatically.

Screenshot:

**Field Updates**

All Workflow Field Updates

Help for this Page ⓘ

View: All Workflow Field Updates | Edit | Create New View

| Action     | Name                                  | Field to Update                 | Operation | Value                      | Last Modified Date |
|------------|---------------------------------------|---------------------------------|-----------|----------------------------|--------------------|
| Edit   Del | Changes the case priority to high.    | Case: Priority                  | Value     | High                       | 9/19/2025          |
| Edit   Del | Set Approval Date                     | Loan Application: Approval Date | Formula   | TODAY()                    | 9/19/2025          |
| Edit   Del | Set Status Approved by Branch Manager | Loan Application: Status        | Value     | Approved by Branch Manager | 9/22/2025          |
| Edit   Del | Set Status Rejected                   | Loan Application: Status        | Value     | Rejected                   | 9/22/2025          |

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 | All

## ◆ Tasks

Tasks were created to assign responsibilities automatically.

- Finance Officer Task: When loan is approved, task “Disburse Loan Amount” is created for Finance Officer with due date = next day.

Outcome: Ensures disbursal activities are completed on time.

Screenshot:

The screenshot shows the Salesforce Setup - Tasks page. A specific workflow task is selected, titled "Task Disburse Loan Amount". The task details include:

- Object:** Loan Application
- Assigned To:** User - finance officer
- Subject:** Disburse Loan Amount
- Unique Name:** Disburse\_Loan\_Amount
- Due Date:** Rule Trigger Date + 1 days
- Comments:** Created By K.Nikhilesh Reddy, 9/19/2025, 12:28 PM
- Status:** Not Started
- Priority:** Normal
- Modified By:** K.Nikhilesh Reddy, 9/2/2025, 6:12 AM

Below the task detail, there are three sections:

- Rules Using This Task:** Shows one rule named "Disburse\_Loan\_Task" with the object "Loan Application" and status "Active".
- Approval Processes Using This Task:** States "This task is currently not used by any approval processes".
- Entitlement Processes Using This Task:** States "This task is currently not used by any entitlement processes".

At the bottom of the page, there are links for "Back To Top" and "Always show me more records per related list".

## ◆ Custom Notifications

Custom Notifications provide real-time in-app alerts to Loan Officers.

- Process: Loan Status Notification Process
  - Trigger: Status = Approved by Branch Manager OR Rejected
  - Recipient: Loan Application Owner (Loan Officer)
  - Title: Loan Status Update
  - Message:
    - Loan Application [Loan\_Application\_\_c].Name has been [Loan\_Application\_\_c].Status\_\_c.

Outcome: Loan Officers receive instant approval/rejection notifications in Salesforce Lightning and Mobile.

## Screenshot:

When you create and use custom notifications, the title and body of the custom push notification may be saved to and processed by Google, Microsoft and/or Apple. Salesforce is not responsible for the privacy and security practices of third-party systems or applications like Google Cloud Messaging or Apple Push Notification Service.

**Custom Notification Types**

Send custom notifications using Flows or Process Builder

| NOTIFICATION NAME                  | API NAME                           | NAMESPACE | DESKTOP | MOBILE |
|------------------------------------|------------------------------------|-----------|---------|--------|
| enablement_coaching_feedback_ready | enablement_coaching_feedback_ready |           | ✓       | ▼      |
| Loan Status Notification           | Loan_Status_Notification           |           | ✓       | ✓      |

**Process Builder - Loan Status Notification Process**

[Expand All](#) [Collapse All](#)

```
graph TD; START([START]) --> LoanApplication[Loan Application]; LoanApplication --> ApprovedReject{Loan Approved/Rejected}; ApprovedReject -- TRUE --> ImmediateActions1["IMMEDIATE ACTIONS<br/>Loan Status Notificat...<br/>+ Add Action"]; ImmediateActions1 --> STOP1([STOP]); ApprovedReject -- FALSE --> AddCriteria{+ Add Criteria}; AddCriteria -- TRUE --> ImmediateActions2["IMMEDIATE ACTIONS<br/>+ Add Action"]; ImmediateActions2 --> STOP2([STOP]); AddCriteria -- FALSE --> STOP3([STOP]);
```

The screenshot shows the Salesforce Setup interface for Custom Notifications. It displays a table of notification types, a success message about Flow Builder, and the detailed configuration of a Process Builder flow for loan status notifications. The flow starts with a 'Loan Application' step, followed by a decision point 'Loan Approved/Rejected'. If 'TRUE', it triggers an immediate action 'Loan Status Notification' and stops. If 'FALSE', it proceeds to another decision point '+ Add Criteria'. If '+ Add Criteria' is 'TRUE', it triggers an immediate action and stops. If '+ Add Criteria' is 'FALSE', it stops. The flow includes buttons for 'Expand All' and 'Collapse All'.

## ◆ End-to-End Automation Flow

1. Loan Officer submits Loan Application (Status = Pending).
2. Credit Manager approves → Status = Approved by Credit Manager.
3. Branch Manager approves → Status = Approved by Branch Manager.
4. Automations triggered:
  - Loan Officer notified via email
  - Approval Date auto-stamped
  - Task assigned to Finance Officer
  - EMI Schedule automatically created
  - Loan Officer receives custom notification
5. If rejected → Status = Rejected → Loan Officer notified.