Project Title: Loan & Credit Approval System

Phase: 1

❖ Problem Statement:

In the financial sector, loan processing and credit approval are often delayed due to manual procedures, paper-based applications, and inefficient communication between applicants, loan officers, and managers. This leads to:

- Time-consuming approval cycles.
- High chances of human error in eligibility and credit checks.
- Lack of transparency for applicants regarding application status.
- Limited tracking of loan disbursement and repayment details.
- Absence of centralized dashboards for management reporting and decision-making.

The Loan & Credit Approval System aims to address these challenges by building a Salesforce-based application that:

- Enables applicants to submit loan requests digitally.
- Performs automated eligibility and credit checks.
- Tracks loan disbursements and repayments.
- Provides interactive dashboards and reports for managers to monitor overall loan operations.

❖ Problem Understanding & Industry Analysis

This phase focuses on analyzing the loan management process, identifying stakeholders, and aligning the solution with industry standards. The key activities include:

- **Requirement Gathering** – Collect and document both functional and non-functional requirements of the Loan & Credit Approval System.
- **Stakeholder Analysis** – Identify key stakeholders such as Loan Officers, Branch Managers, Admins, and Applicants, and define their roles and expectations.
- **Business Process Mapping** – Map the complete loan lifecycle, covering application submission, credit checks, approvals, disbursements, and repayments.
- **Industry Specific Use Case Analysis** – Study existing practices in the banking and finance industry to align the system with real-world workflows.
- **AppExchange Exploration** – Explore Salesforce AppExchange solutions related to loan management to identify potential integrations or enhancements.

Phase-2: Org Setup & Configuration

1. Salesforce Editions:

- Used Developer Edition Org (free).
- Includes custom objects, Flows, Apex, Approval Processes, and Lightning components.
- Sandbox not available in Developer Edition, so work is done directly in Dev O.

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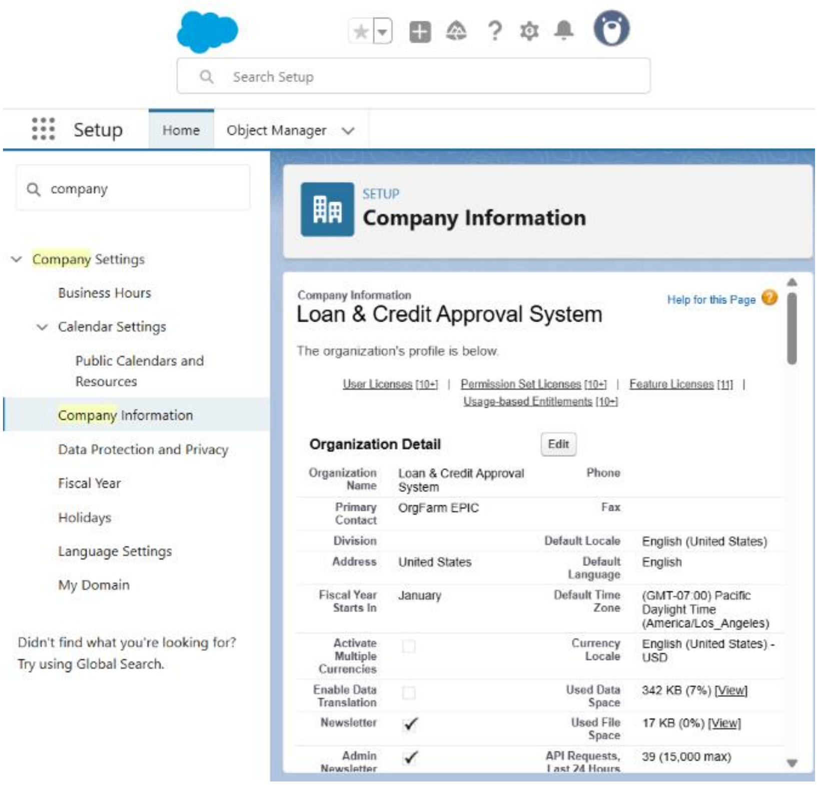
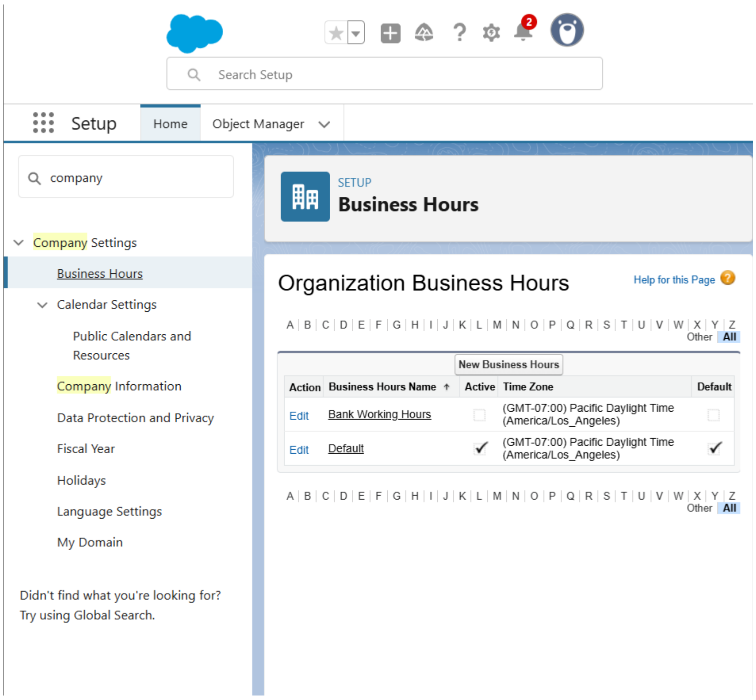
2. Company Profile Setup:

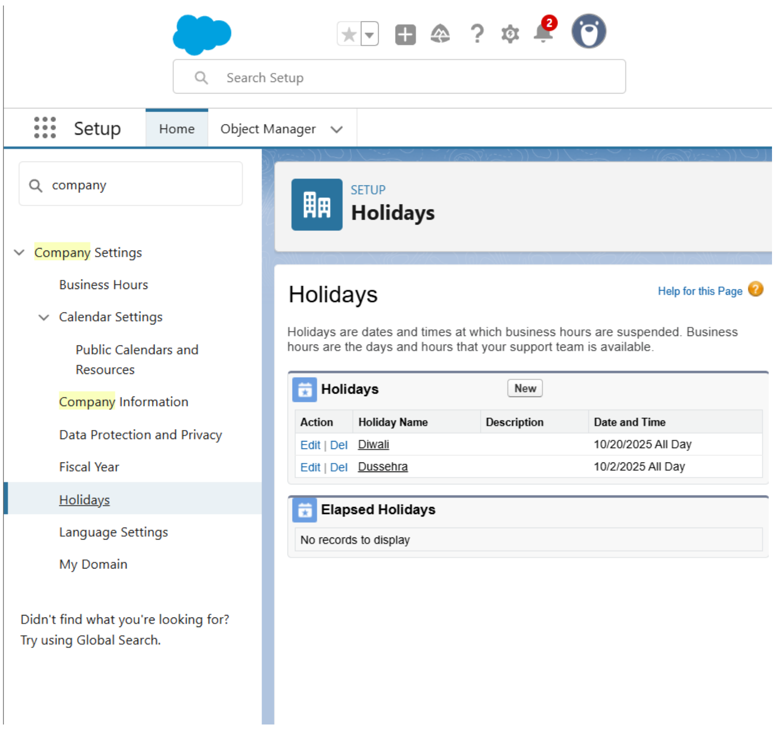
- Navigated to Setup → Company Information.
- Updated organization name to “Loan & Credit Approval System”.
- Adjusted:
  - Currency → INR
  - Locale → India
  - Timezone → IST
- This ensures reports and currency fields reflect correct region settings.



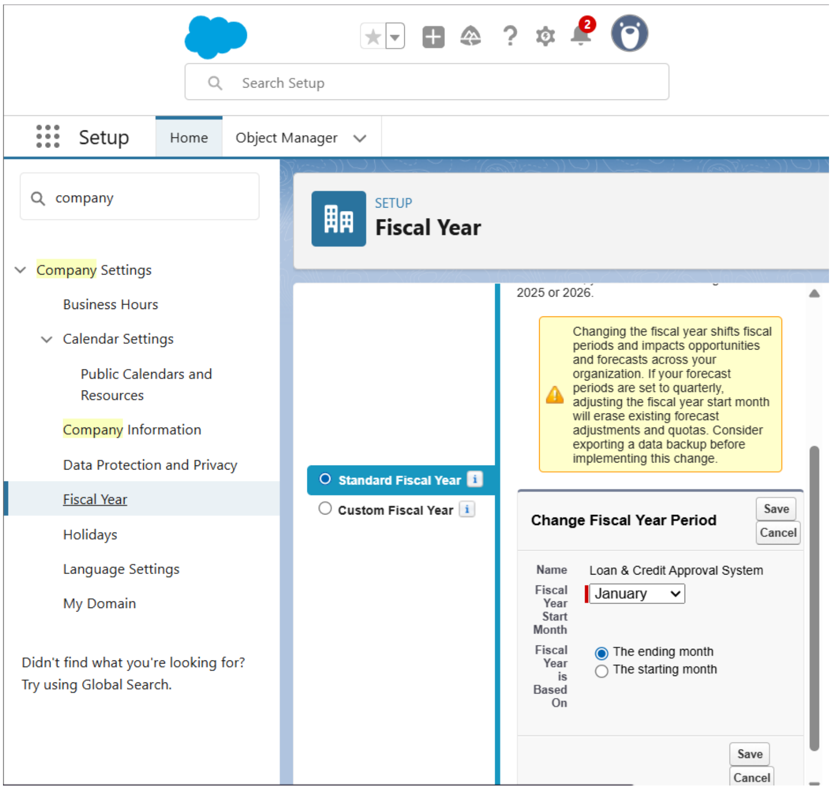
3. Business Hours & Holidays:

- Defined Bank Working Hours: Monday–Friday, 9 AM–6 PM.
- Added key holidays (e.g., Dussehra, Diwali).



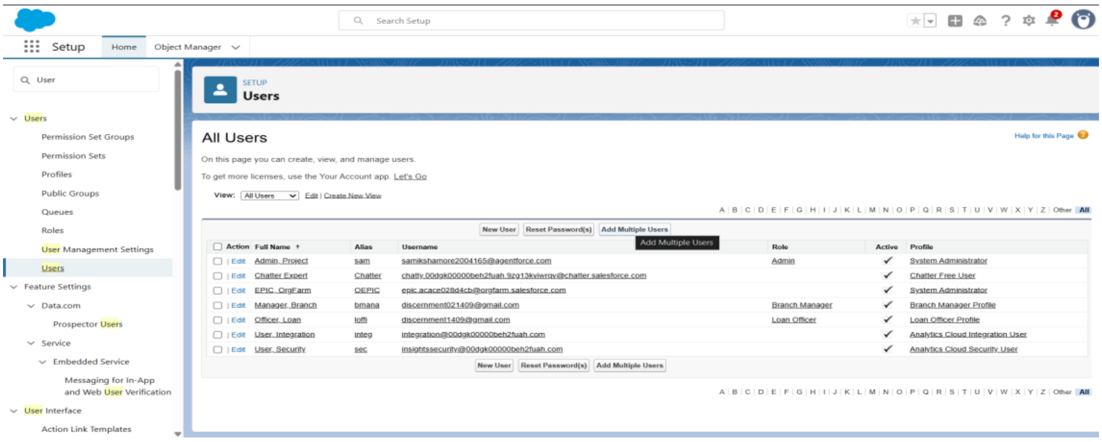


4. Fiscal Year Settings: (Default: Start from January)



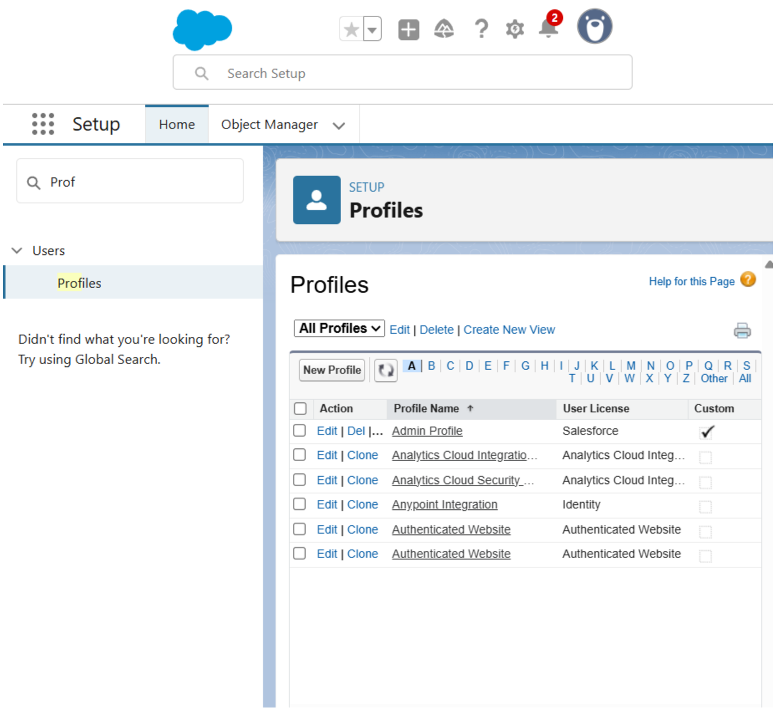
5. User Setup & Licenses:

- Created 3 test users for role-based testing:
  - Admin User – Full access.
  - Branch Manager – Mid-level access, approval authority.
  - Loan Officer – Creates and manages applications.
- Assigned Standard User licenses and mapped them to roles.

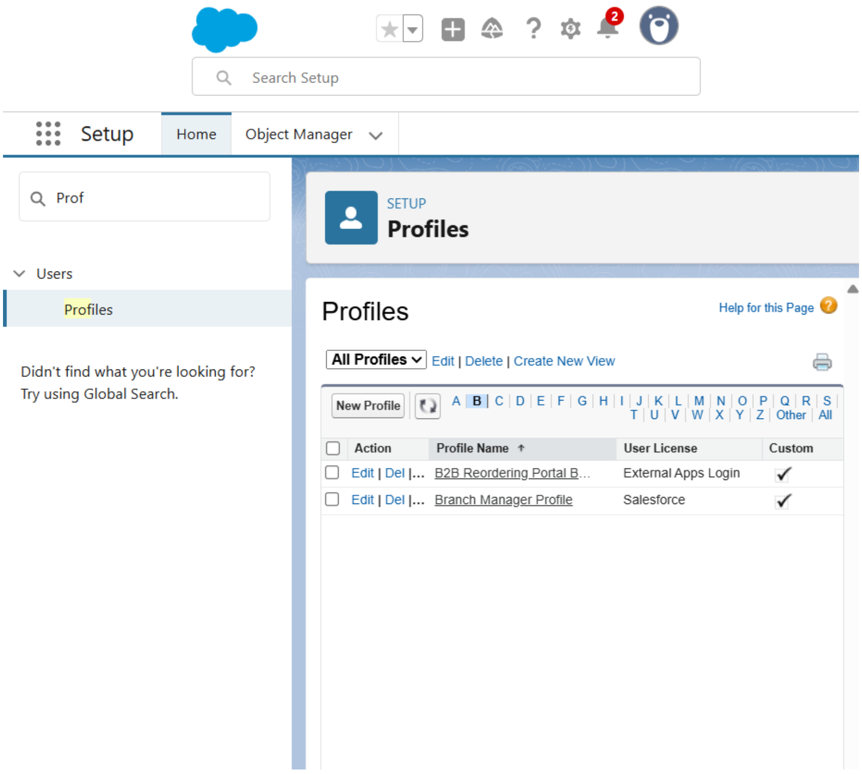


6. Profiles:

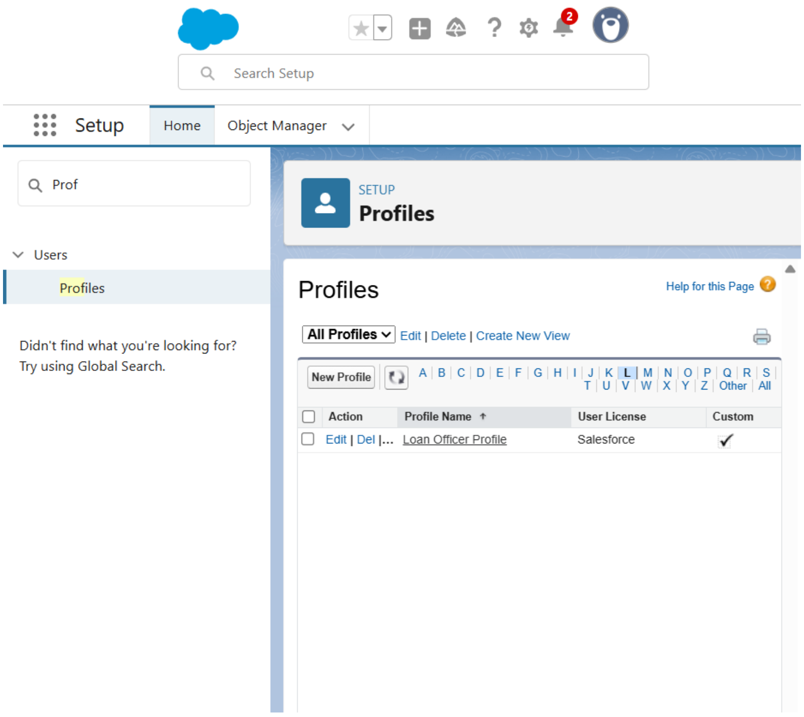
- Customized profiles for different roles:
  - Loan Officer Profile → CRUD on Loan Application & Payment objects, Read-only on Credit Check.
  - Branch Manager Profile → Read/Edit/View All on Loan Applications, Read/Edit on Payments and Credit Checks.
  - Admin Profile → Full system access.
- Profiles define baseline permissions for objects and fields.
  i. Admin (Custom Profile):



ii. Branch Manger Profile (Custom Profile):

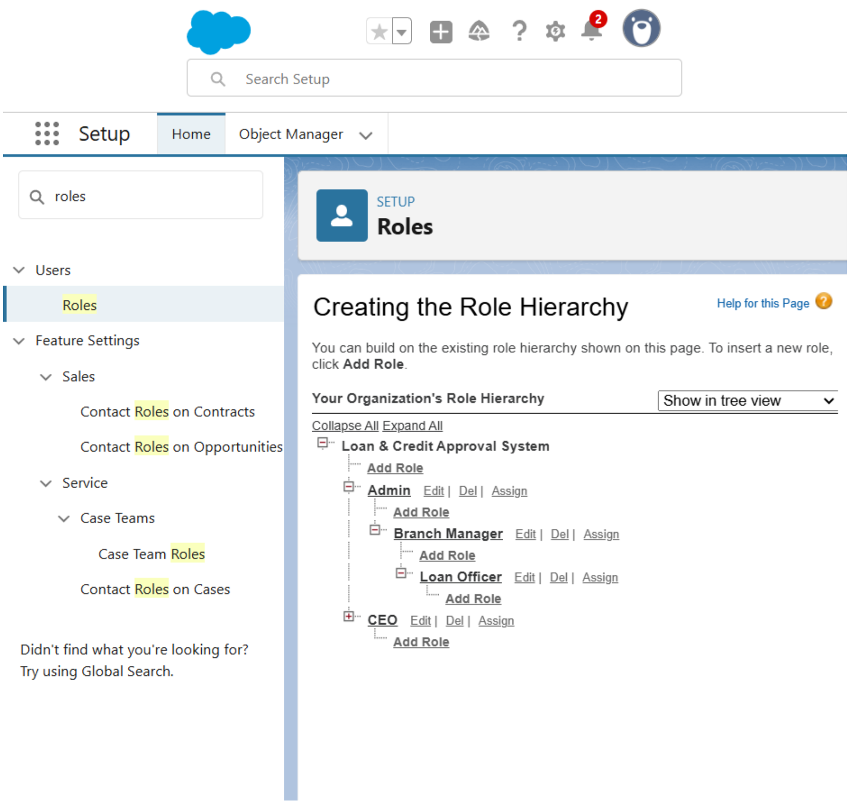


iii. Loan Officer Profile (Custom Profile):

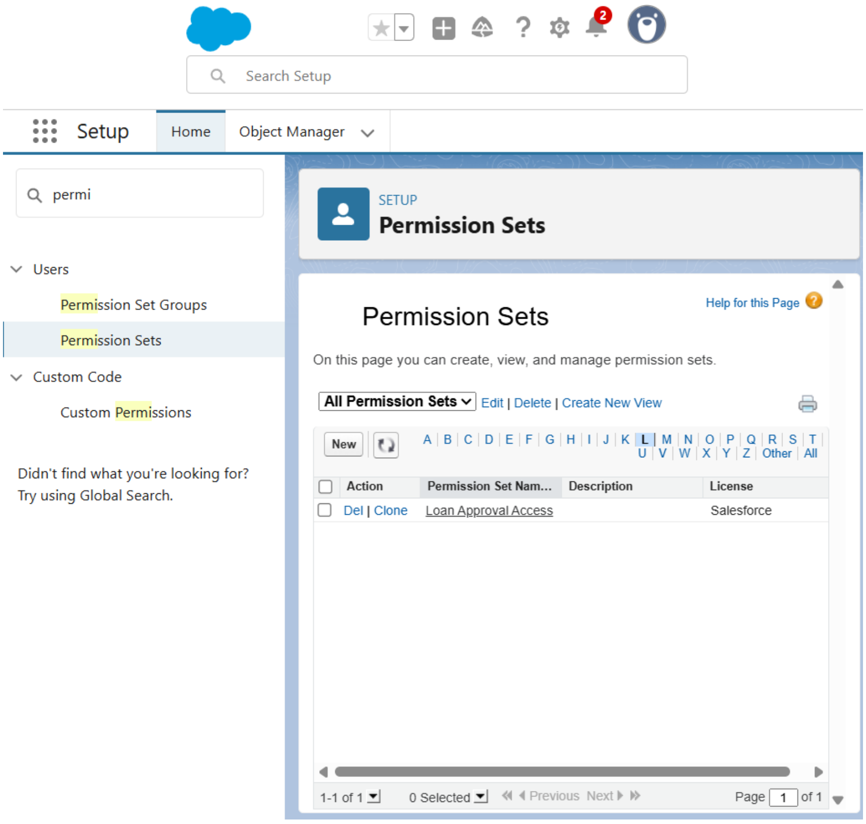


7. Roles:

- Established role hierarchy:
  - Admin → Branch Manager → Loan Officer
- This ensures managers see subordinate records automatically, important for loan supervision



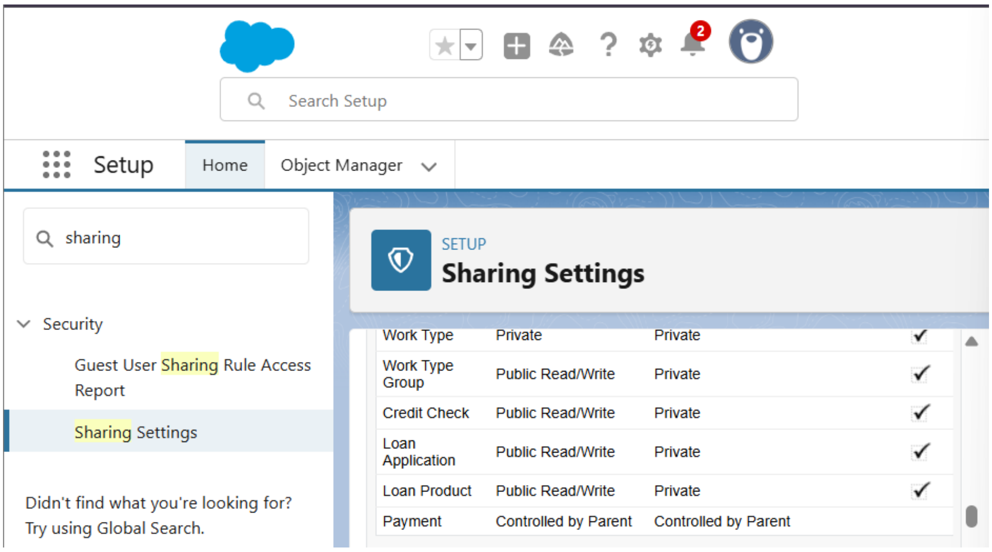
8. Permission Sets:



9. OWD:

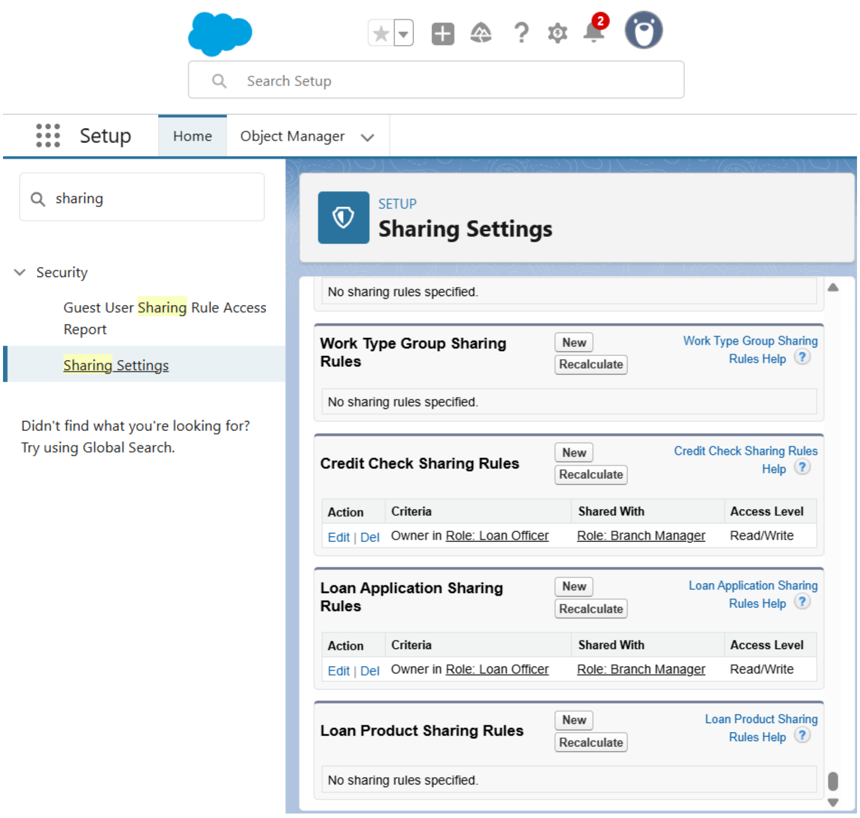
Configured Sharing Settings:

- Loan Application = Private
- Payment = Controlled by Parent (Loan Application)
- Credit Check = Private

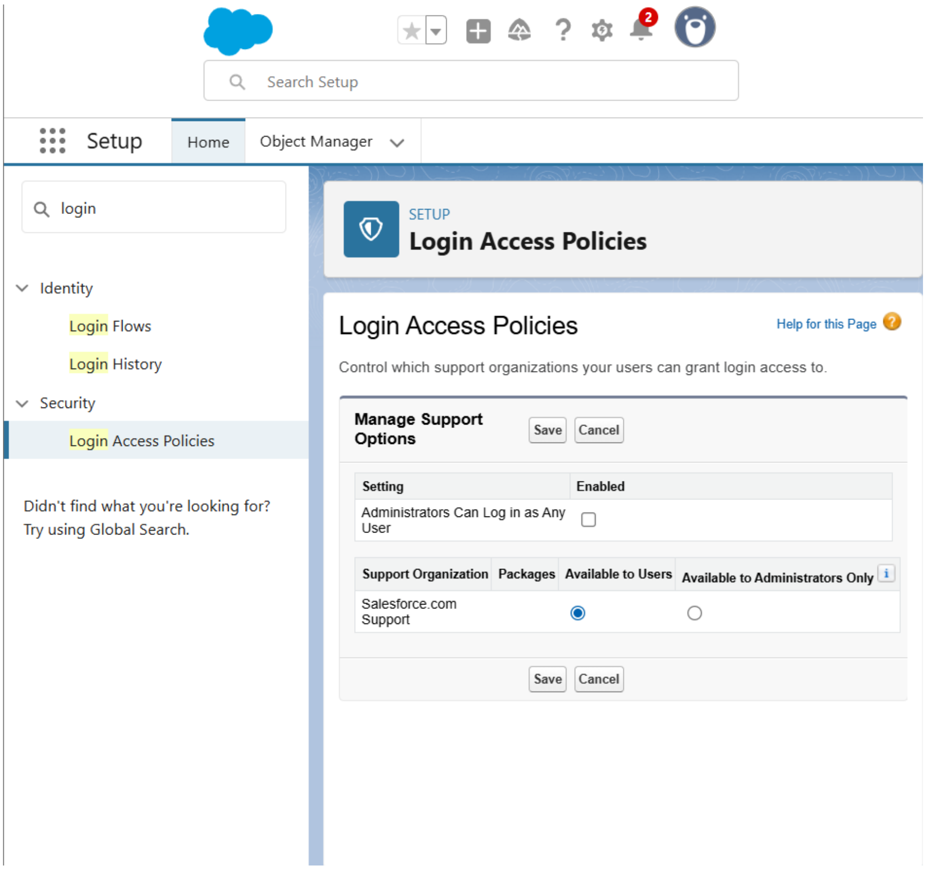


10.Sharing Rules:

- Implemented role-based sharing:
    - LoanOfficer_to_BranchManager → shares Loan Applications owned by Loan Officers with their Branch Managers (Read/Write).
    - CreditCheck_to_BranchManager → shares Credit Checks owned by Loan Officers with Branch Managers (Read/Write).
- Payments inherit access from Loan Applications (no separate sharing rule needed).



11.Login Access Policies (Default- No changes made)



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12. Dev Org Setup

- **Action Taken:** Used a Salesforce Developer Org for the entire project development.
- **Purpose:** Provides a full-featured environment to configure objects, automation, Apex, and Lightning components.

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13. Sandbox Usage (Not Implemented)

- **Reason:** Project was developed directly in the Developer Org; no separate sandbox environment was used.

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14. Deployment Basics

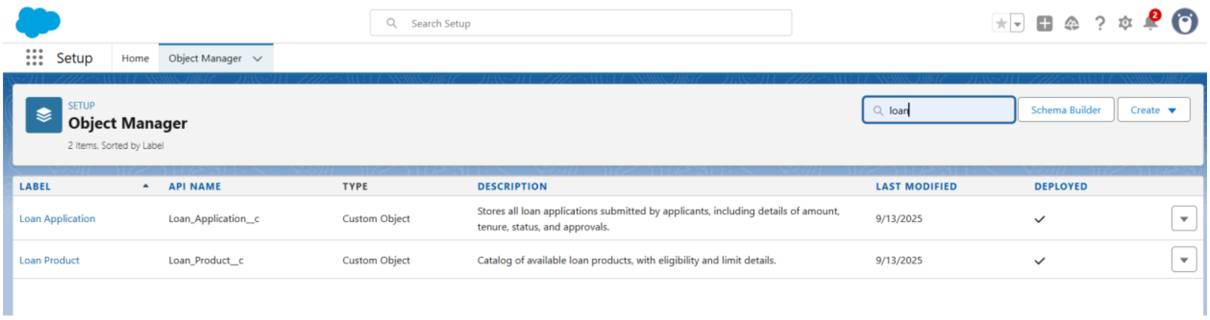
- **Action Taken:** Integrated the Salesforce Org with **VS Code using Salesforce SFDX**.

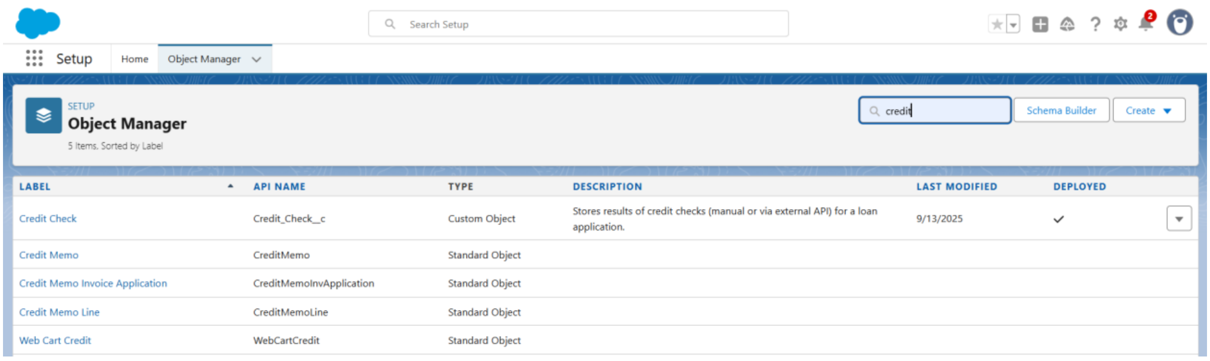
- **Purpose:**
    - Enables version control and metadata management.
    - Allows pushing Apex classes, triggers, and Lightning components from local VS Code environment to Salesforce Org.

Phase – 3: Data Modeling & Relationships

1. Standard & Custom Objects

- Standard Objects: Contact, User (used for Applicant and Approver).
- Custom Objects created:
  - Loan_Application__c → core loan records.
  - Loan_Product__c → loan catalog with product-specific rules.
  - Payment__c → EMI schedules & repayments.
  - Credit_Check__c → stores applicant's credit verification results.





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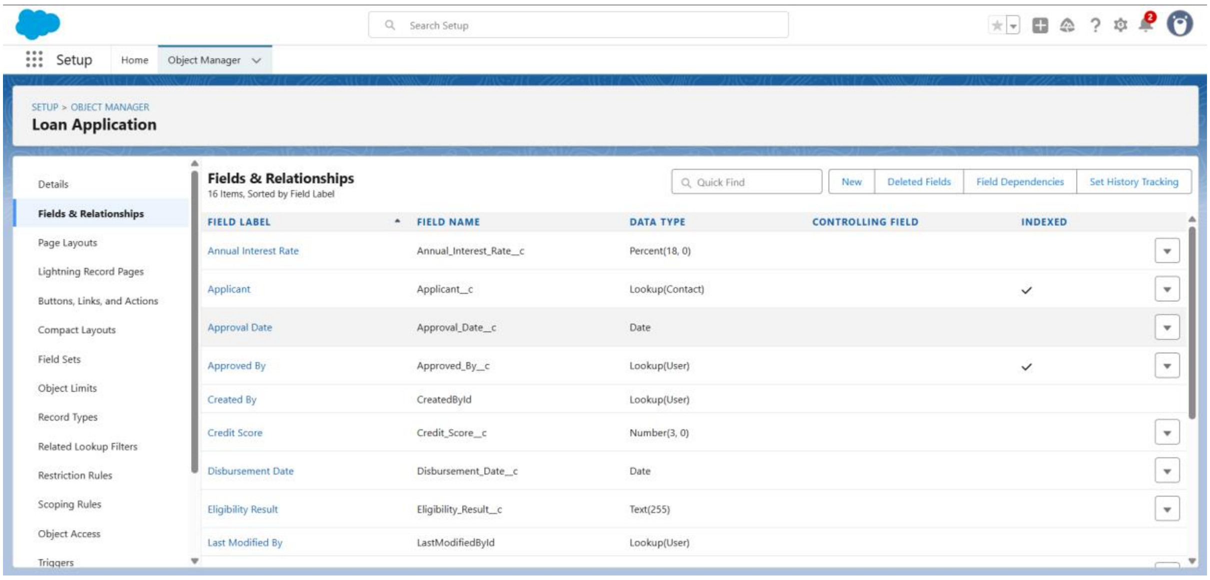
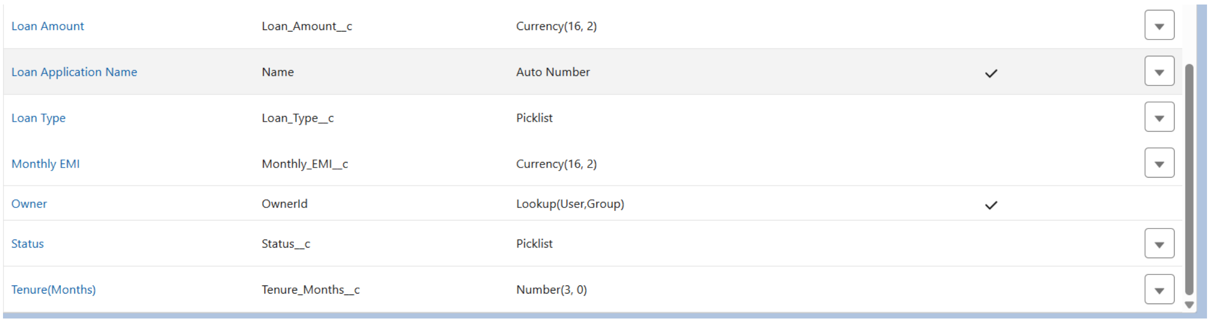
2. Fields

- Defined key fields for each object (Loan Amount, Tenure, Interest Rate, Credit Score, Status, etc.).
- Used Currency, Number, Date, Picklist, Lookup field types.
- Example: Loan_Application__c includes fields for Applicant (Lookup to Contact)**,** Approved By (Lookup to User)**, and** Status (Picklist)**.**

i. Loan Application:

SETUP > OBJECT MANAGER

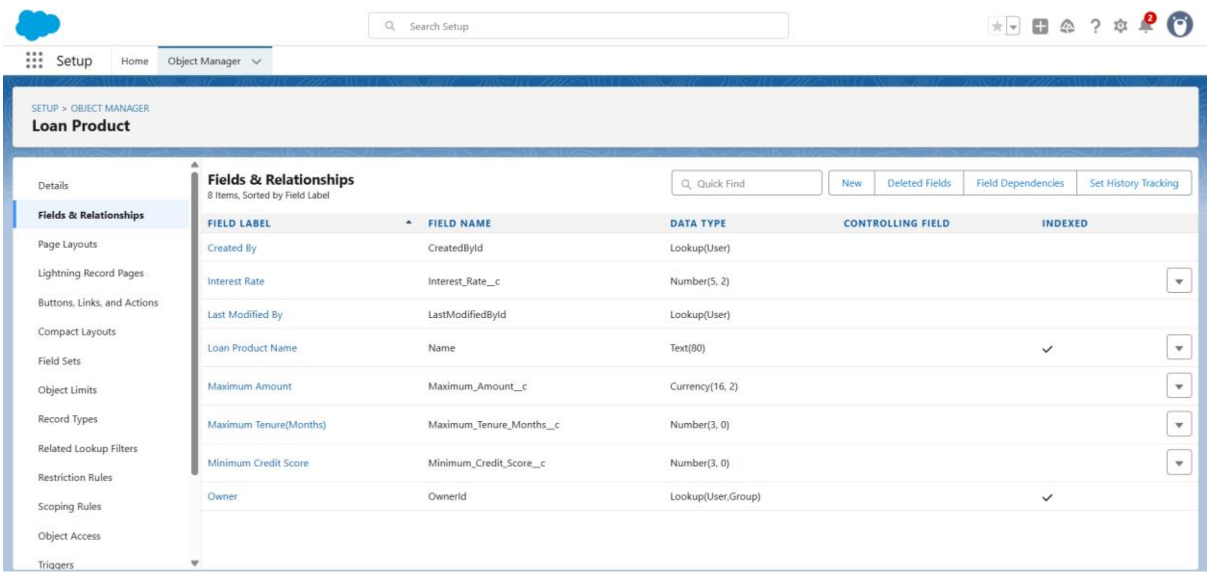
Loan Application

Fields & Relationships

16 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Annual Interest Rate	Annual_Interest_Rate__c	Percent(18, 0)		
Applicant	Applicant__c	Lookup(Contact)		✓
Approval Date	Approval_Date__c	Date		
Approved By	Approved_By__c	Lookup(User)		✓
Created By	CreatedById	Lookup(User)		
Credit Score	Credit_Score__c	Number(3, 0)		
Disbursement Date	Disbursement_Date__c	Date		
Eligibility Result	Eligibility_Result__c	Text(255)		
Last Modified By	LastModifiedById	Lookup(User)		
Loan Amount	Loan_Amount__c	Currency(16, 2)		
Loan Application Name	Name	Auto Number		✓
Loan Type	Loan_Type__c	Picklist		
Monthly EMI	Monthly_EMI__c	Currency(16, 2)		
Owner	OwnerId	Lookup(User,Group)		✓
Status	Status__c	Picklist		
Tenure(Months)	Tenure_Months__c	Number(3, 0)		

ii. Loan product:



SETUP > OBJECT MANAGER

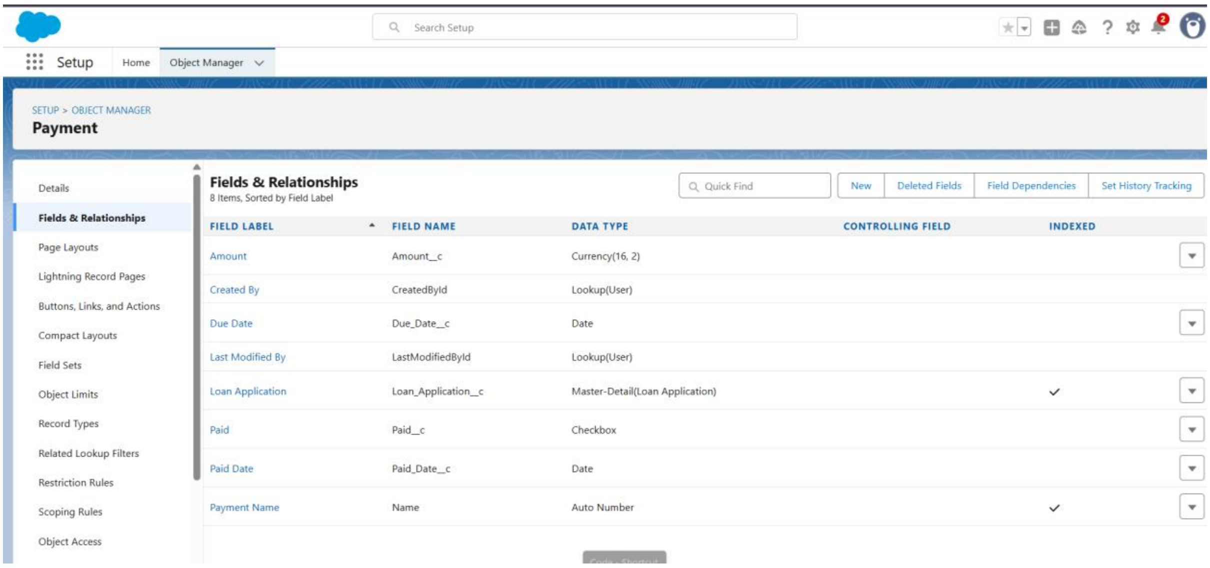
Loan Product

Fields & Relationships

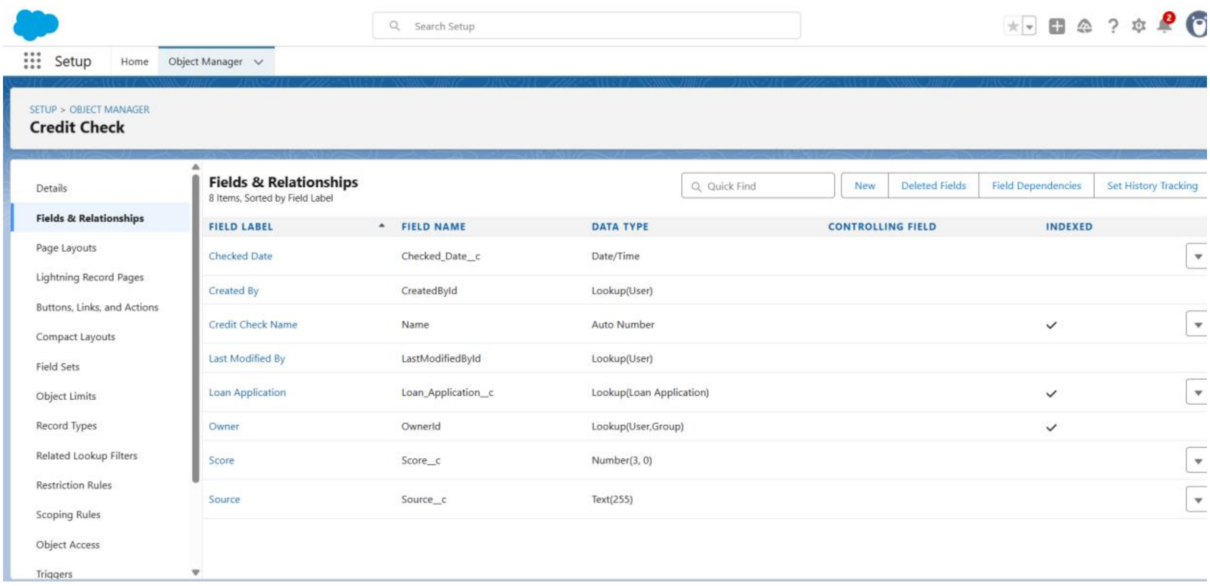
8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Interest Rate	Interest_Rate__c	Number(5, 2)		
Last Modified By	LastModifiedById	Lookup(User)		
Loan Product Name	Name	Text(80)		✓
Maximum Amount	Maximum_Amount__c	Currency(16, 2)		
Maximum Tenure(Months)	Maximum_Tenure_Months__c	Number(3, 0)		
Minimum Credit Score	Minimum_Credit_Score__c	Number(3, 0)		
Owner	OwnerId	Lookup(User,Group)		✓

iii. Payment:



iv. Credit Check:



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3. Record Types (Optional)

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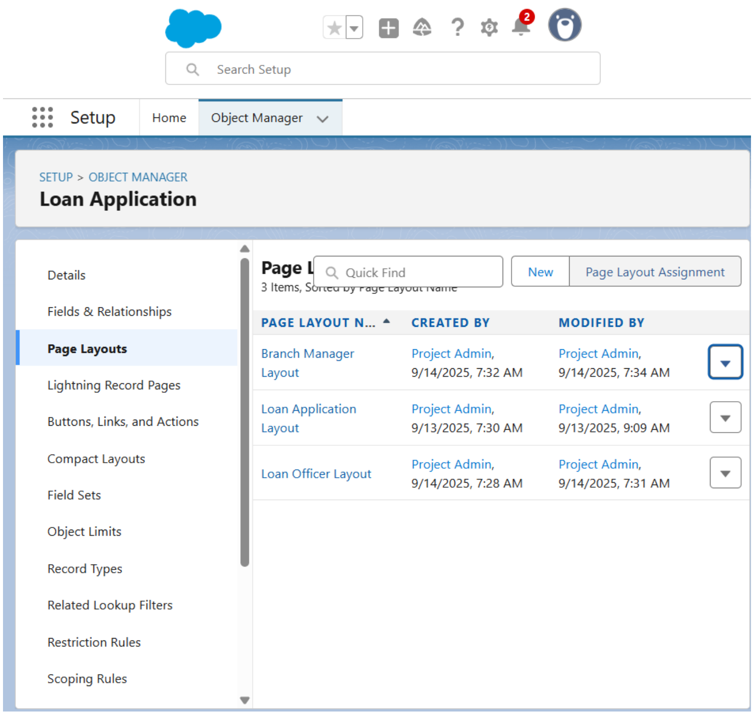
4. Page Layouts

- Customized layouts for usability:
  - Loan Application layout includes related lists (Payments, Credit Checks, Files).
  - Branch Manager sees approval fields (Approved By, Approval Date).
  - Loan Officer sees application and credit verification fields.



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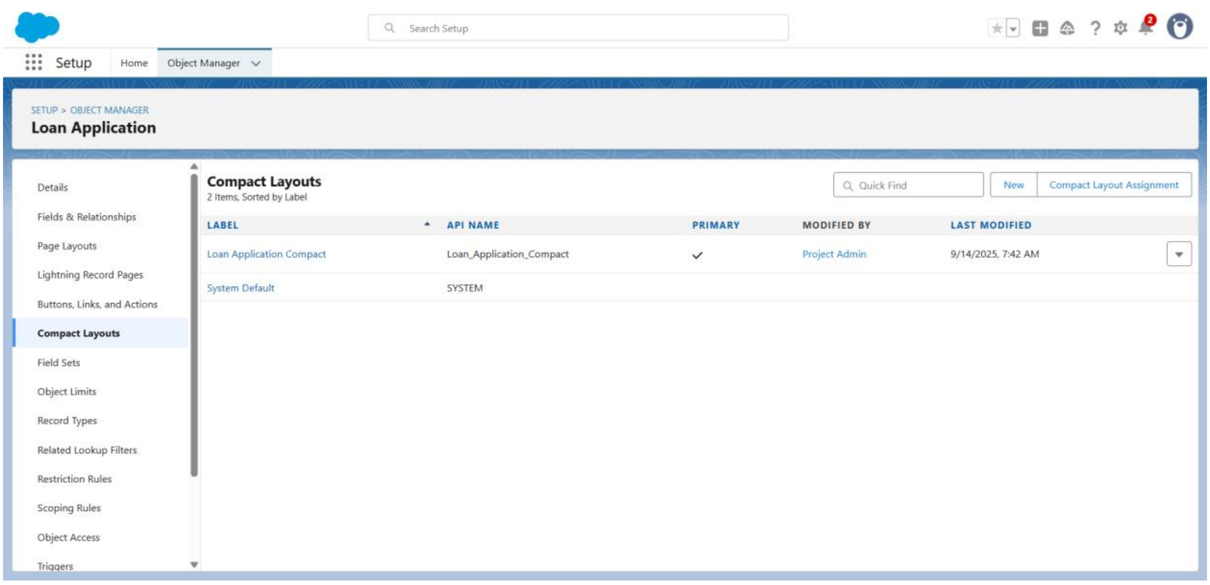
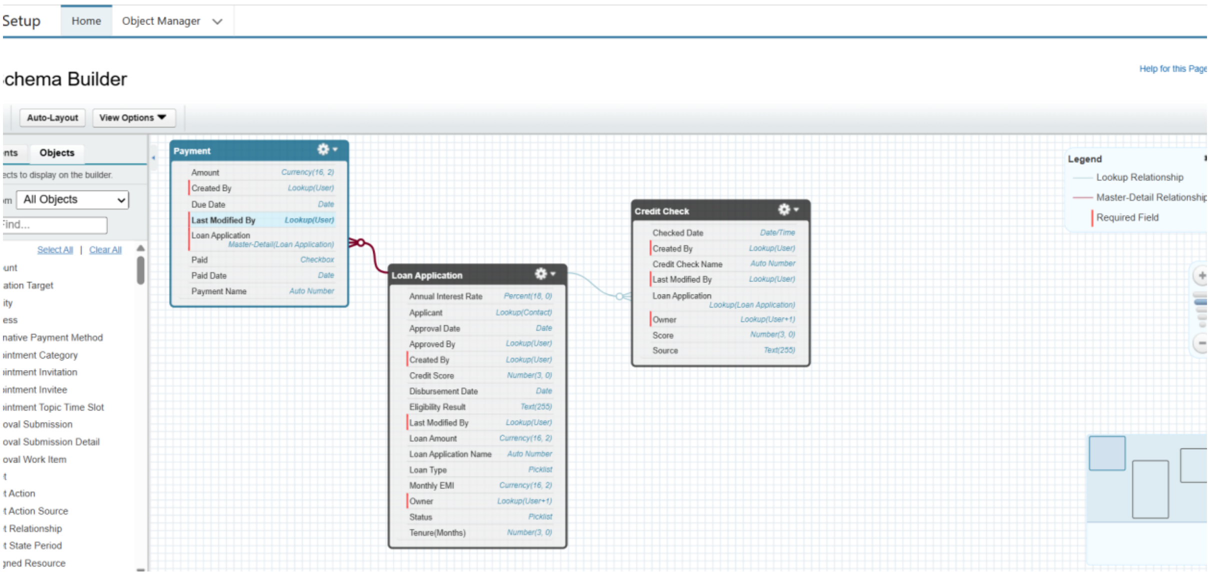
5. Compact Layouts



6. Schema Builder

- Used Schema Builder to visualize object relationships.
- Provided a clear ERD (Entity Relationship Diagram) for Loan Application → Payment (Master-Detail), Loan Application → Credit Check (Lookup).



7. Lookup vs Master-Detail vs Hierarchical Relationships

- Master-Detail: Loan Application → Payment (Payments deleted when Loan Application deleted).
- Lookup: Loan Application → Credit Check (independent but linked).
- Hierarchical: Not used (only applies to User object).

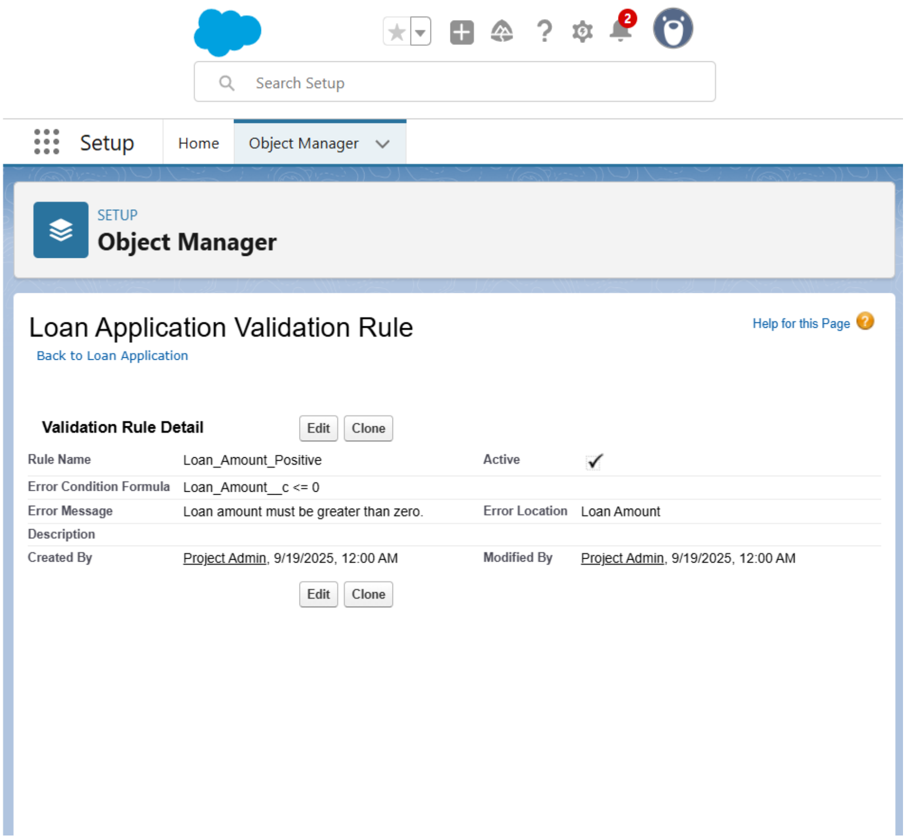
8. Junction Objects (Not required in current model)

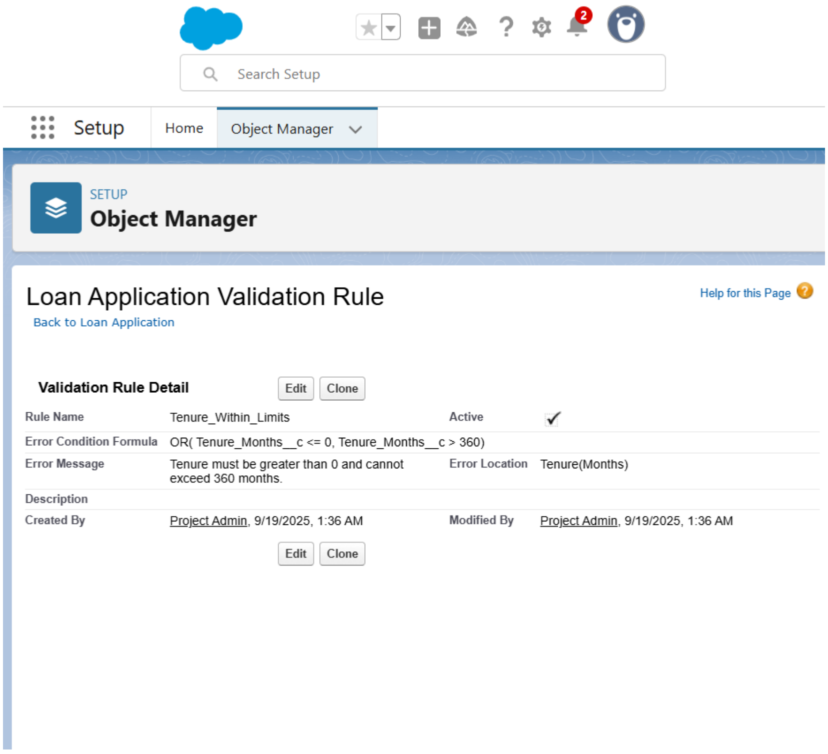
9. External Objects (Not required in current model)

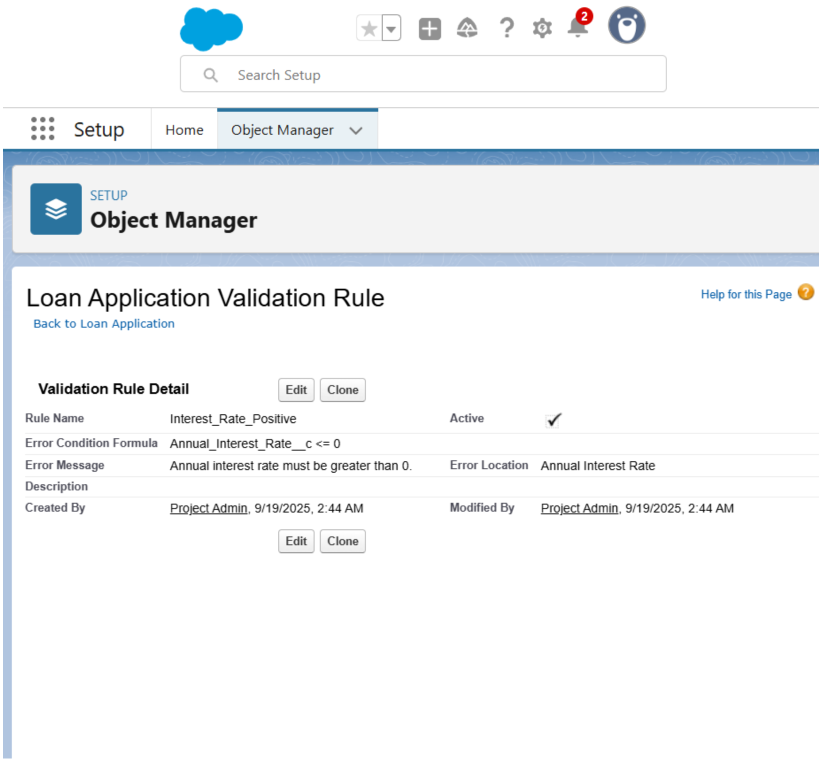
Phase - 4: Process Automation (Admin)

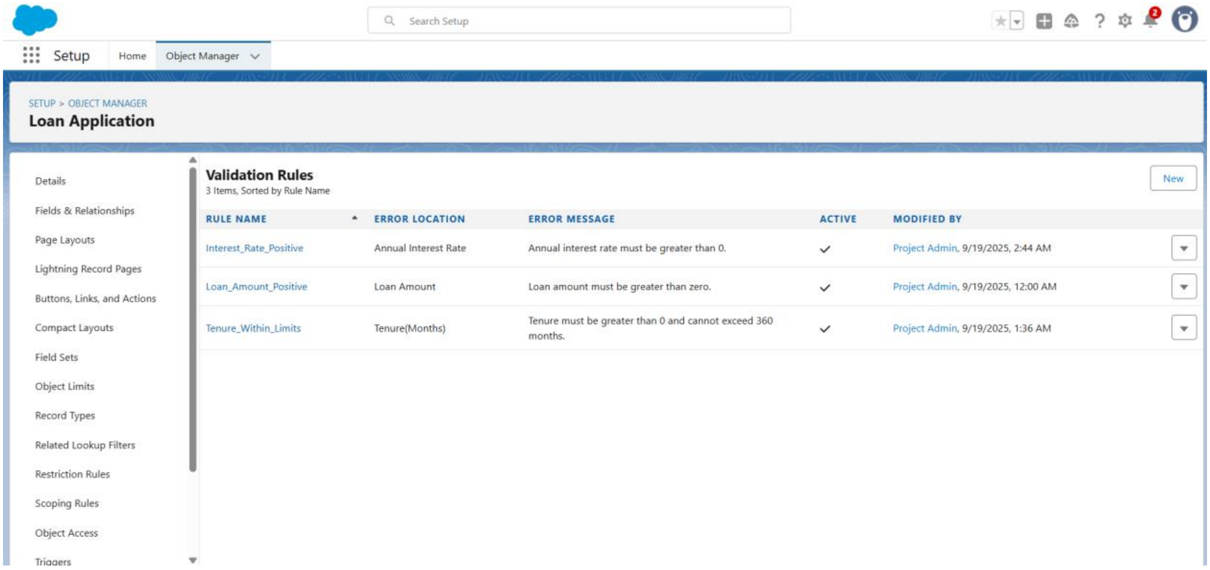
1. Validation Rules:

- **Rules Created:**
  - **Interest Rate Positive** – ensures annual interest rate > 0.
  - **Loan Amount Positive** – ensures loan amount > 0.
  - **Tenure Within Limits** – ensures tenure > 0 and ≤ 360 months.
- **Purpose:** Prevents invalid loan records from being saved



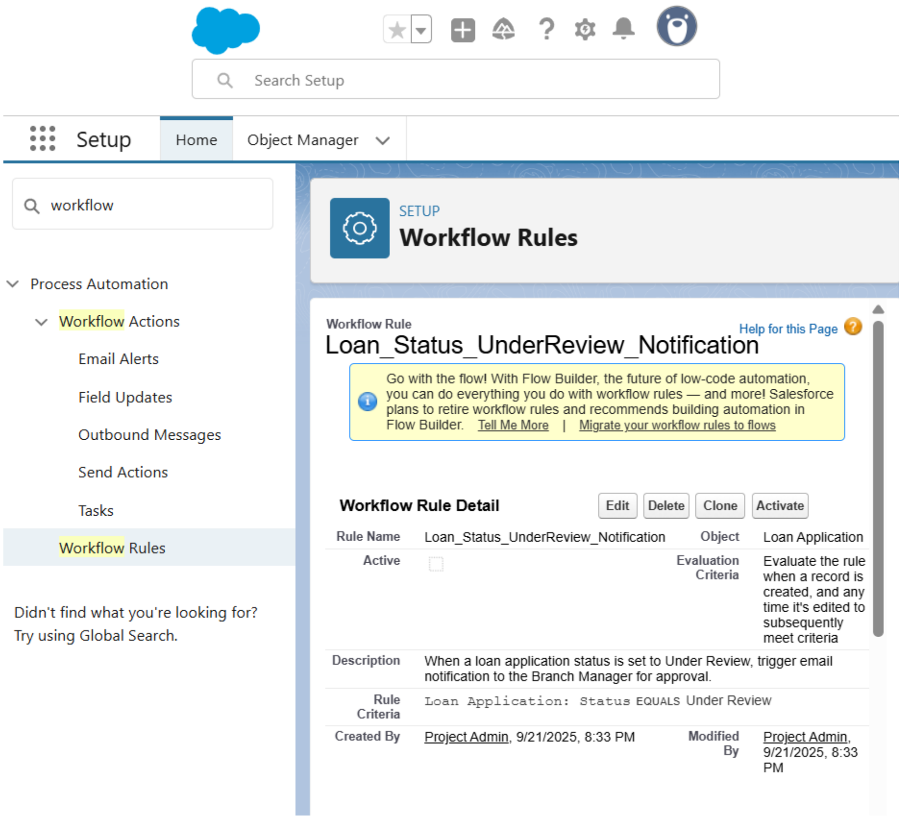

Search Setup
Setup
Home
Object Manager
SETUP
Object Manager
Loan Application Validation Rule
Back to Loan Application
Help for this Page
Validation Rule Detail
Edit
Clone
Rule Name
Tenure_Within_Limits
Active
Error Condition Formula
OR(Tenure_Months__c <= 0, Tenure_Months__c > 360)
Error Message
Tenure must be greater than 0 and cannot exceed 360 months.
Error Location
Tenure(Months)
Description
Created By
Project Admin, 9/19/2025, 1:36 AM
Modified By
Project Admin, 9/19/2025, 1:36 AM
Edit
Clone

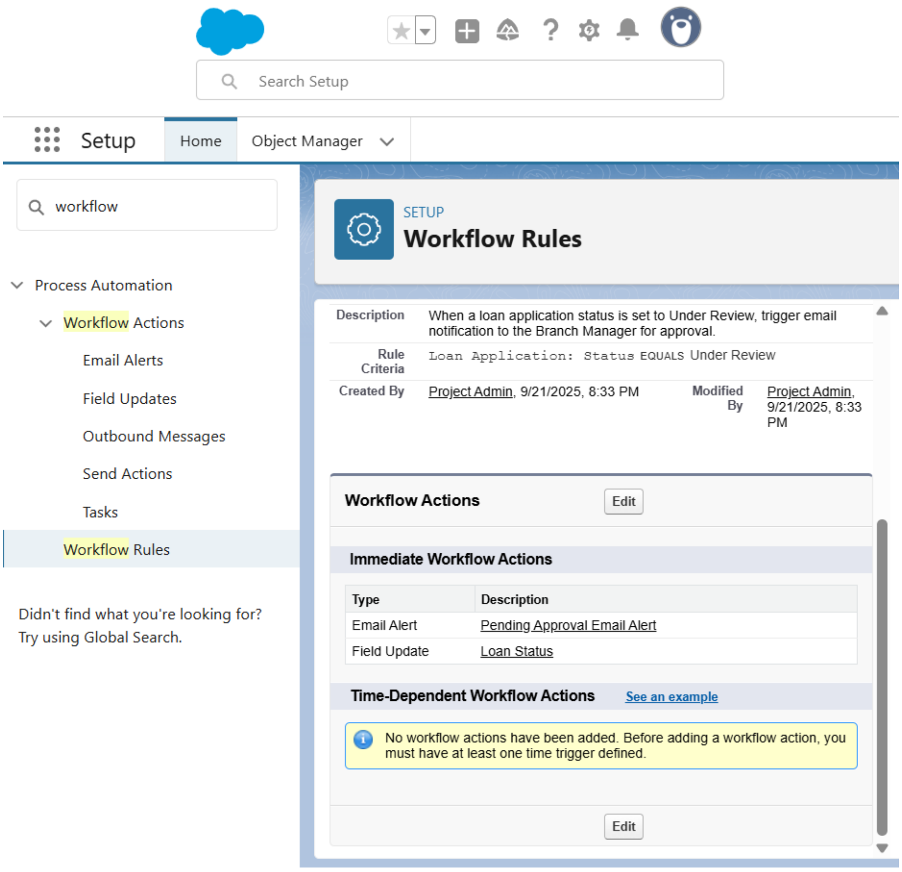

Search Setup
Setup
Home
Object Manager
SETUP
Object Manager
Loan Application Validation Rule
Back to Loan Application
Help for this Page
Validation Rule Detail
Edit
Clone
Rule Name
Interest_Rate_Positive
Active
Error Condition Formula
Annual_Interest_Rate__c <= 0
Error Message
Annual interest rate must be greater than 0.
Error Location
Annual Interest Rate
Description
Created By
Project Admin, 9/19/2025, 2:44 AM
Modified By
Project Admin, 9/19/2025, 2:44 AM
Edit
Clone

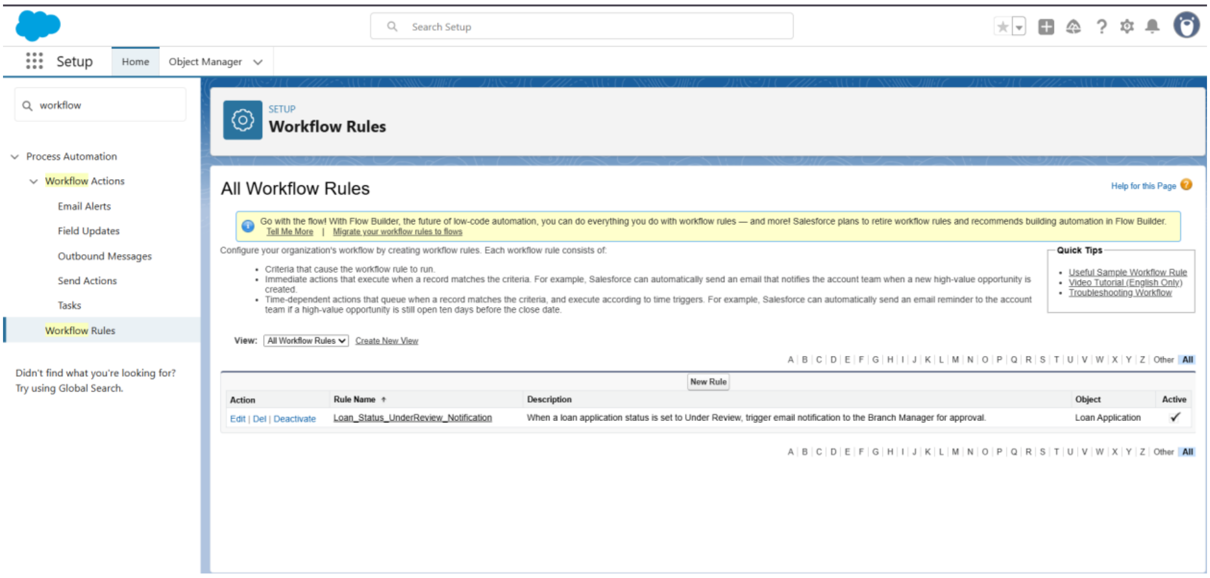


2. WorkFlow:

- **Rule Name:** Loan Status Under Review Notification
- **Criteria:** Loan Application status = “Under Review”
- **Evaluation:** When a record is created or edited to meet criteria.
- **Actions:**
  - **Email Alert:** Sends Pending Approval notification.
  - **Field Update:** Pending Review checkbox automatically enabled.


Search Setup
Setup
Home
Object Manager
workflow
Process Automation
Workflow Actions
Email Alerts
Field Updates
Outbound Messages
Send Actions
Tasks
Workflow Rules
Didn't find what you're looking for? Try using Global Search.
SETUP
Workflow Rules
Workflow Rule
Loan_Status_UnderReview_Notification
Help for this Page
Go with the flow! With Flow Builder, the future of low-code automation, you can do everything you do with workflow rules — and more! Salesforce plans to retire workflow rules and recommends building automation in Flow Builder. Tell Me More | Migrate your workflow rules to flows
Workflow Rule Detail
Edit
Delete
Clone
Activate
Rule Name
Loan_Status_UnderReview_Notification
Object
Loan Application
Active
Evaluation Criteria
Evaluate the rule when a record is created, and any time it's edited to subsequently meet criteria
Description
When a loan application status is set to Under Review, trigger email notification to the Branch Manager for approval.
Rule Criteria
Loan Application: Status EQUALS Under Review
Created By
Project Admin, 9/21/2025, 8:33 PM
Modified By
Project Admin, 9/21/2025, 8:33 PM


Search Setup
Setup
Home
Object Manager
workflow
Process Automation
Workflow Actions
Email Alerts
Field Updates
Outbound Messages
Send Actions
Tasks
Workflow Rules
Didn't find what you're looking for? Try using Global Search.
SETUP
Workflow Rules
Description
When a loan application status is set to Under Review, trigger email notification to the Branch Manager for approval.
Rule Criteria
Loan Application: Status EQUALS Under Review
Created By
Project Admin, 9/21/2025, 8:33 PM
Modified By
Project Admin, 9/21/2025, 8:33 PM
Workflow Actions
Edit
Immediate Workflow Actions
Type
Description
Email Alert
Pending Approval Email Alert
Field Update
Loan Status
Time-Dependent Workflow Actions
See an example
No workflow actions have been added. Before adding a workflow action, you must have at least one time trigger defined.
Edit


Search Setup
Setup
Home
Object Manager
workflow
Process Automation
Workflow Actions
Email Alerts
Field Updates
Outbound Messages
Send Actions
Tasks
Workflow Rules
Didn't find what you're looking for?
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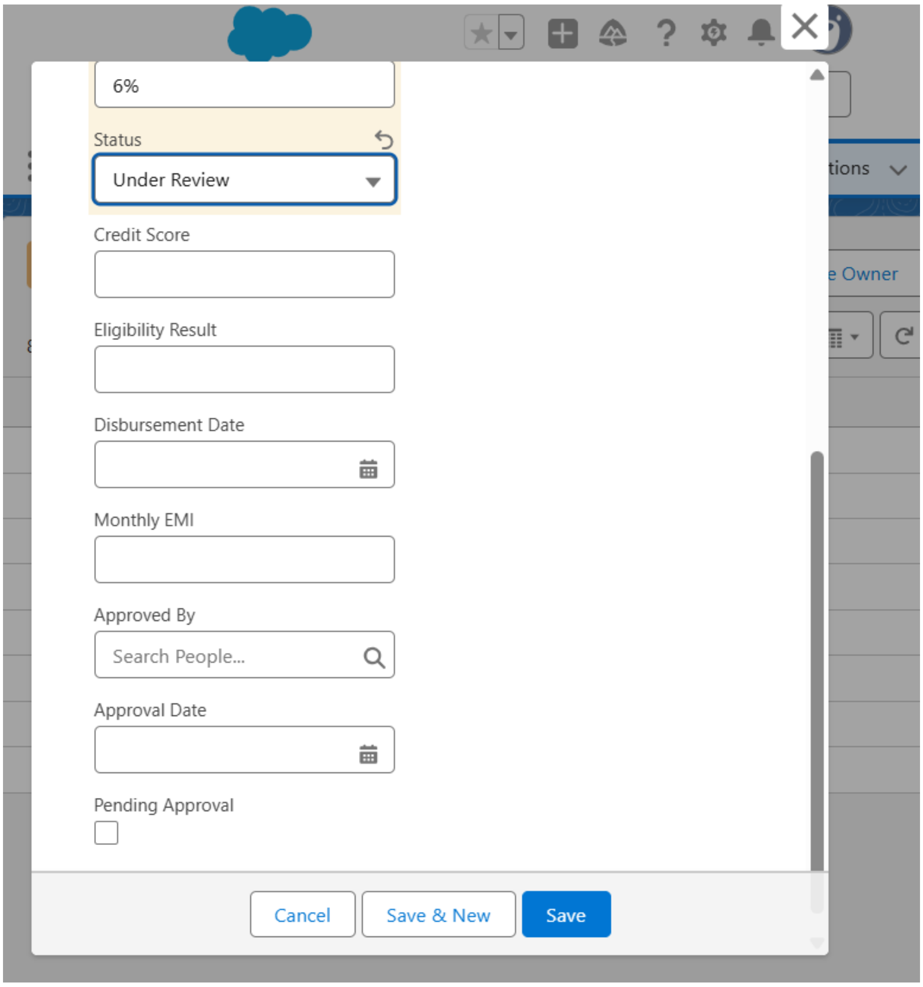
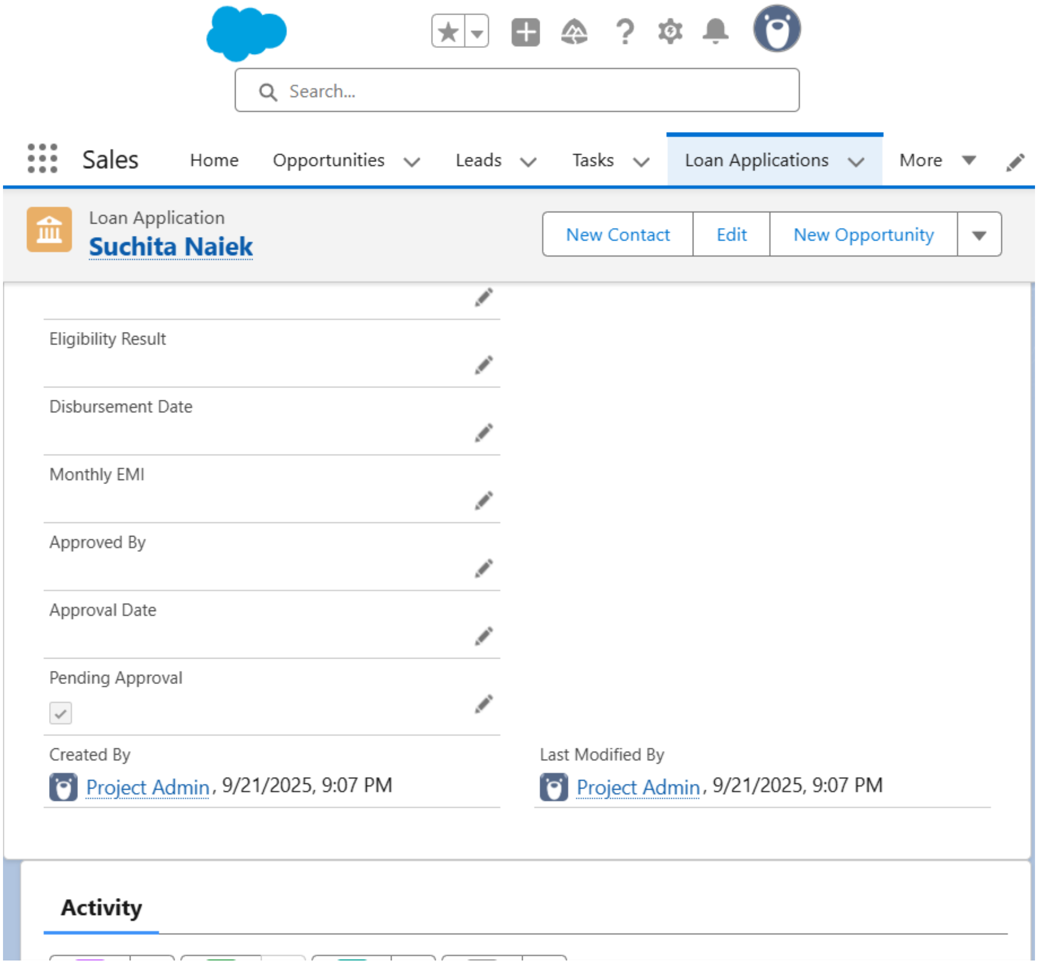
Workflow Rules
All Workflow Rules
Help for this Page
Go with the flow! With Flow Builder, the future of low-code automation, you can do everything you do with workflow rules — and more! Salesforce plans to retire workflow rules and recommends building automation in Flow Builder.
Tell Me More | Migrate your workflow rules to flows
Configure your organization's workflow by creating workflow rules. Each workflow rule consists of:
Criteria that cause the workflow rule to run.
Immediate actions that execute when a record matches the criteria. For example, Salesforce can automatically send an email that notifies the account team when a new high-value opportunity is created.
Time-dependent actions that queue when a record matches the criteria, and execute according to time triggers. For example, Salesforce can automatically send an email reminder to the account team if a high-value opportunity is still open ten days before the close date.
Quick Tips
Useful Sample Workflow Rule
Video Tutorial (English Only)
Troubleshooting Workflow
View: All Workflow Rules
Create New View
New Rule
Action
Rule Name
Description
Object
Active
Edit | Del | Deactivate
Loan_Status_UnderReview_Notification
When a loan application status is set to Under Review, trigger email notification to the Branch Manager for approval.
Loan Application


6%
Status
Under Review
Credit Score
Eligibility Result
Disbursement Date
Monthly EMI
Approved By
Search People...
Approval Date
Pending Approval
Cancel
Save & New
Save



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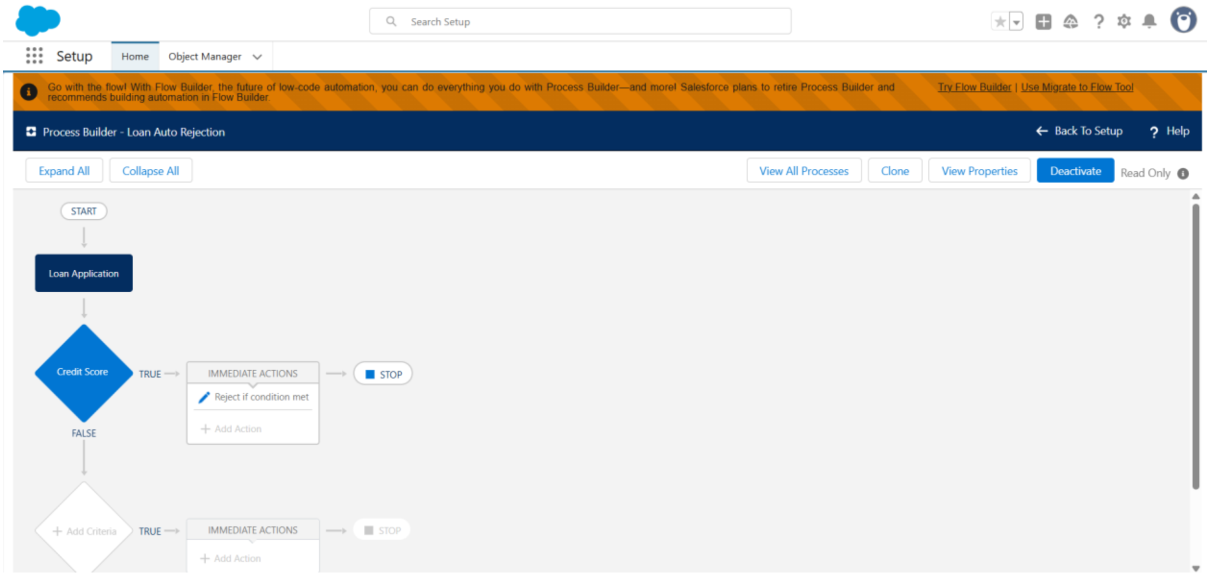
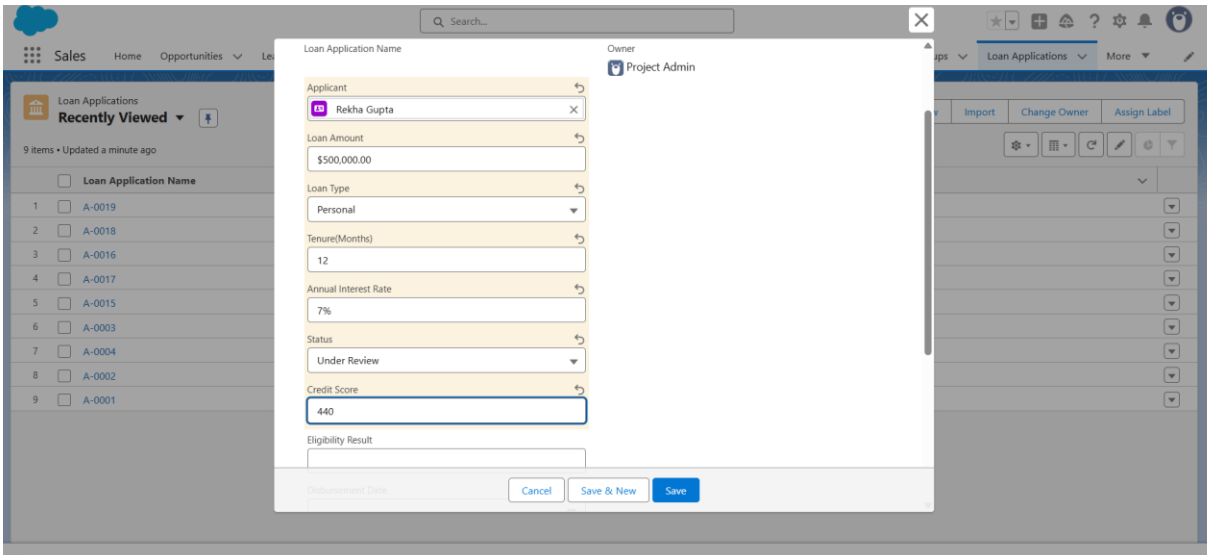
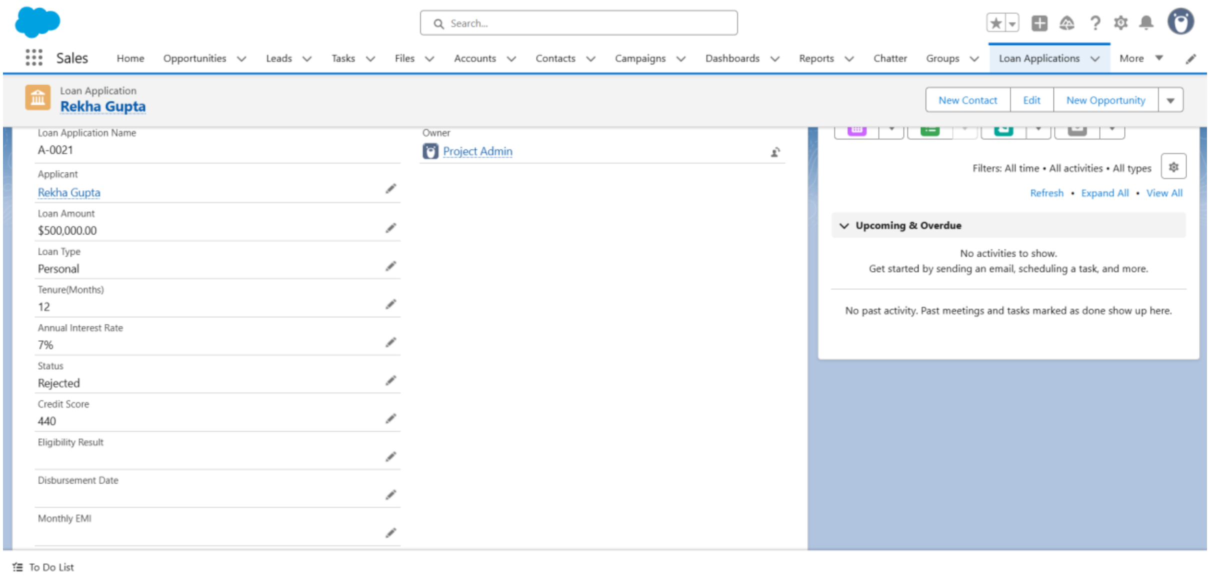
3. Process Builder:

- **Process Name:** Loan Auto Rejection
- **Criteria:** When loan record meets rejection conditions.
- **Action:** Status automatically updated to “Rejected”.


Search Setup
Setup
Home
Object Manager
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.
Try Flow Builder | Use Migrate to Flow Tool
Process Builder - Loan Auto Rejection
Back To Setup
Help
Expand All
Collapse All
View All Processes
Clone
View Properties
Deactivate
Read Only
START
Loan Application
Credit Score
TRUE
IMMEDIATE ACTIONS
Reject if condition met
Add Action
STOP
FALSE
Add Criteria
TRUE
IMMEDIATE ACTIONS
Add Action
STOP


Sales
Loan Applications
Recently Viewed
9 items • Updated a minute ago
Loan Application Name
A-0019
A-0018
A-0016
A-0017
A-0015
A-0003
A-0004
A-0002
A-0001
Import
Change Owner
Assign Label
Loan Application Name
Owner
Project Admin
Applicant
Rekha Gupta
Loan Amount
$500,000.00
Loan Type
Personal
Tenure(Months)
12
Annual Interest Rate
7%
Status
Under Review
Credit Score
440
Eligibility Result
Cancel
Save & New
Save


Sales
Home
Opportunities
Leads
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Files
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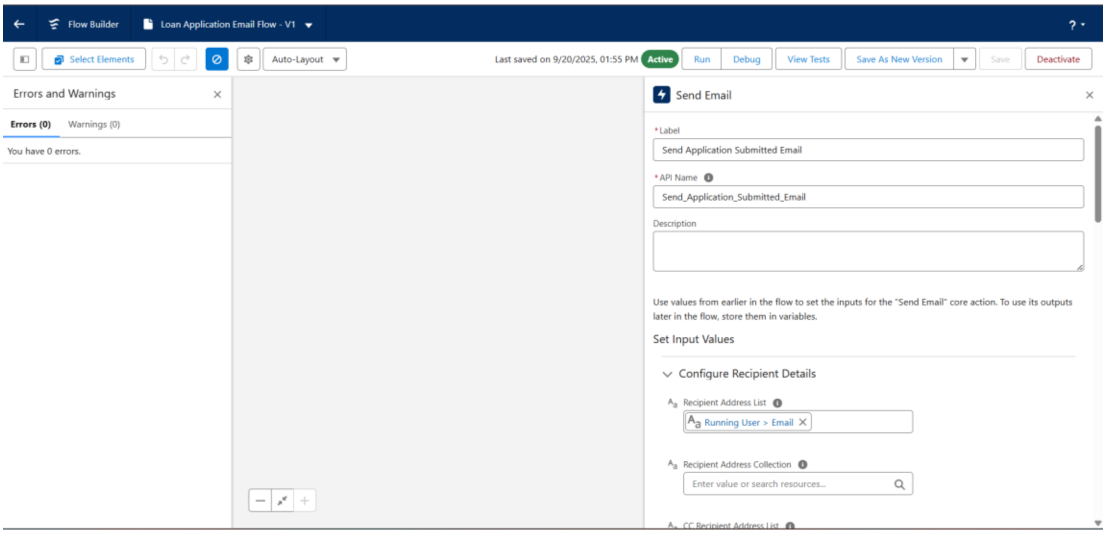
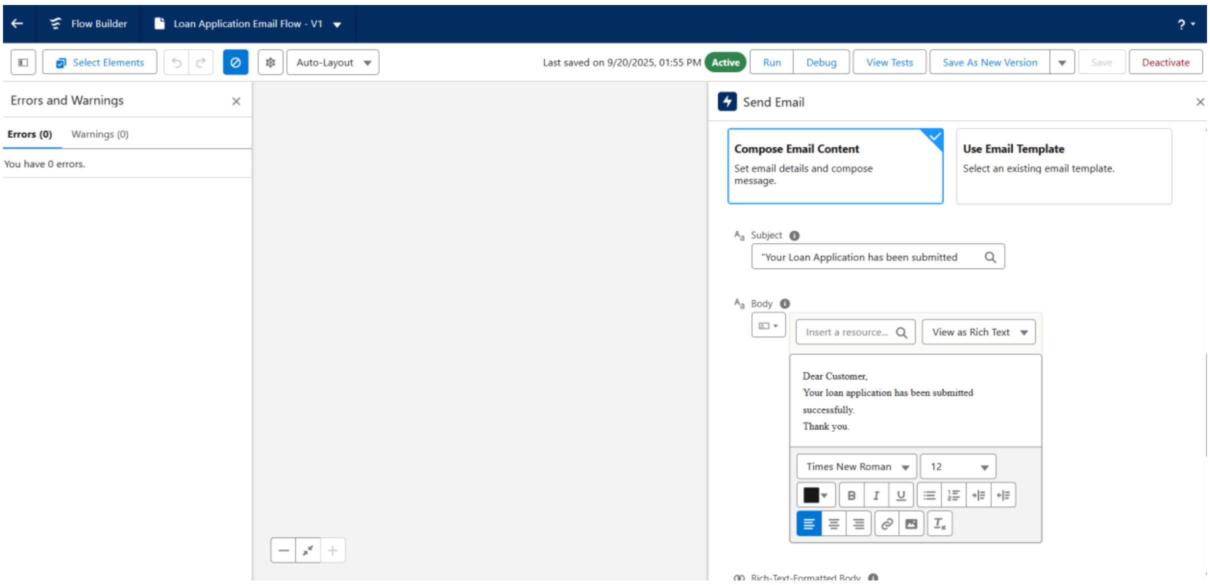
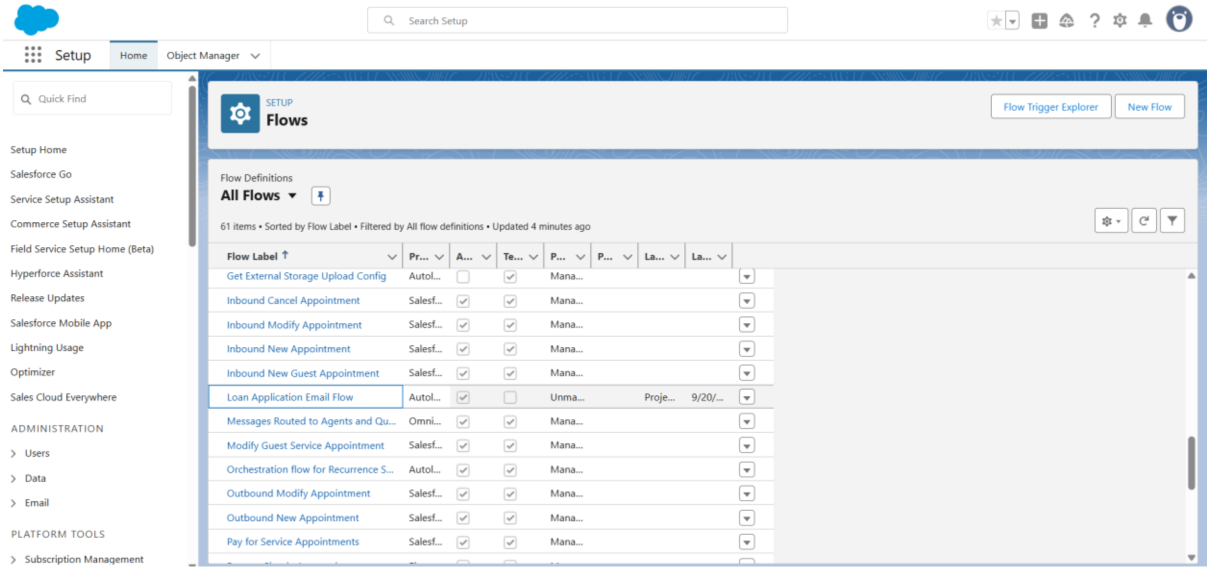
Contacts
Campaigns
Dashboards
Reports
Chatter
Groups
Loan Applications
More
Loan Application
Rekha Gupta
New Contact
Edit
New Opportunity
Loan Application Name
A-0021
Owner
Project Admin
Applicant
Rekha Gupta
Loan Amount
$500,000.00
Loan Type
Personal
Tenure(Months)
12
Annual Interest Rate
7%
Status
Rejected
Credit Score
440
Eligibility Result
Disbursement Date
Monthly EMI
Filters: All time • All activities • All types
Refresh • Expand All • View All
Upcoming & Overdue
No activities to show.
Get started by sending an email, scheduling a task, and more.
No past activity. Past meetings and tasks marked as done show up here.
To Do List

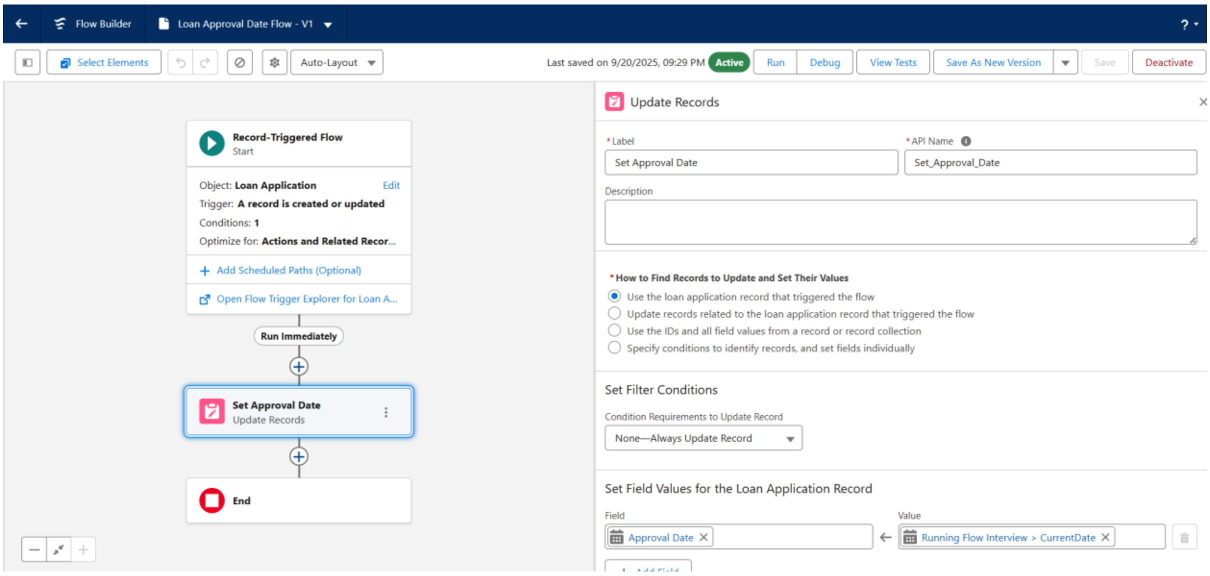
4. Flow:

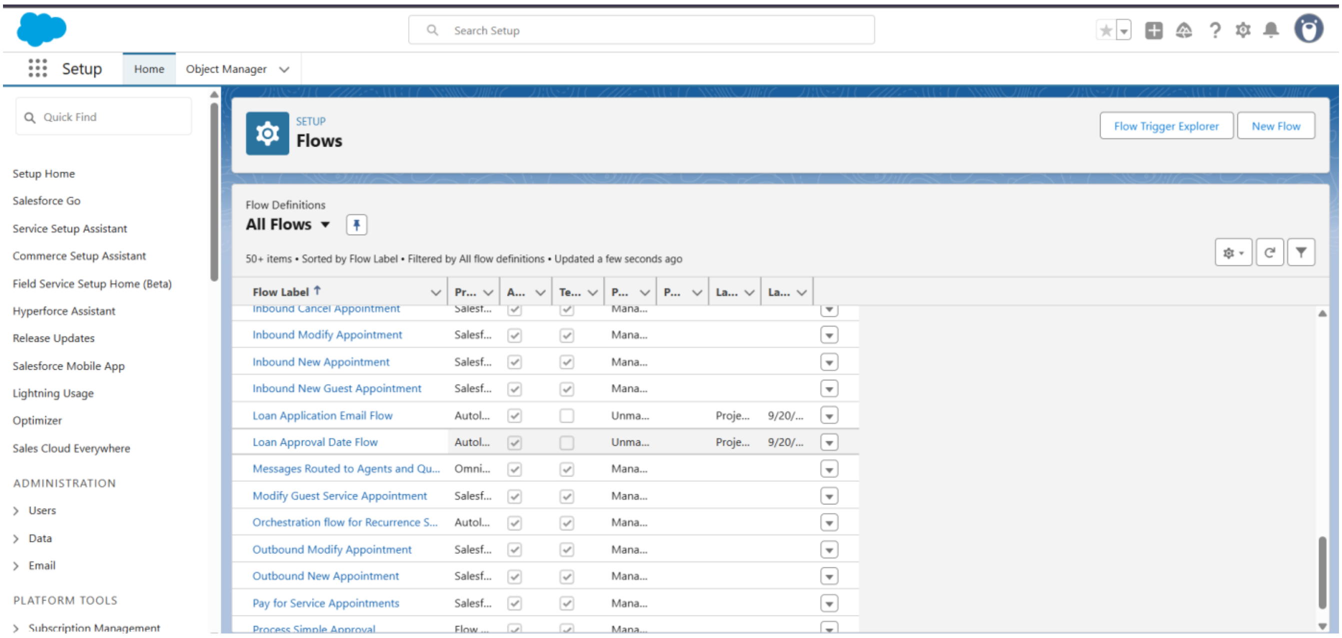
- **Flows Created:**
  - **Loan Application EMI Flow** – auto-populates EMI field when loan record is created.
  - **Next Loan Approval Date Flow –** auto-fills approval date upon record creation.
- **Purpose:** Automation ensures accurate EMI calculation and approval date assignment.

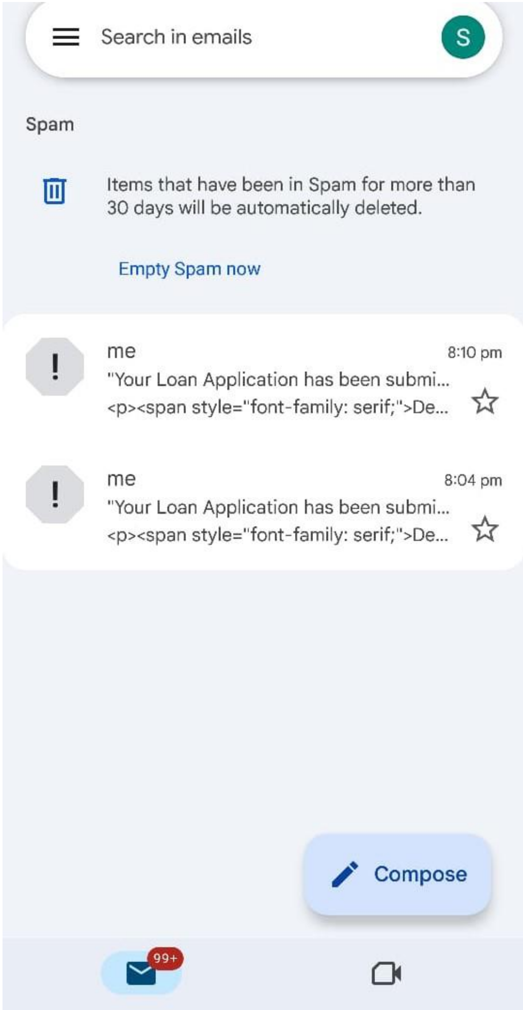


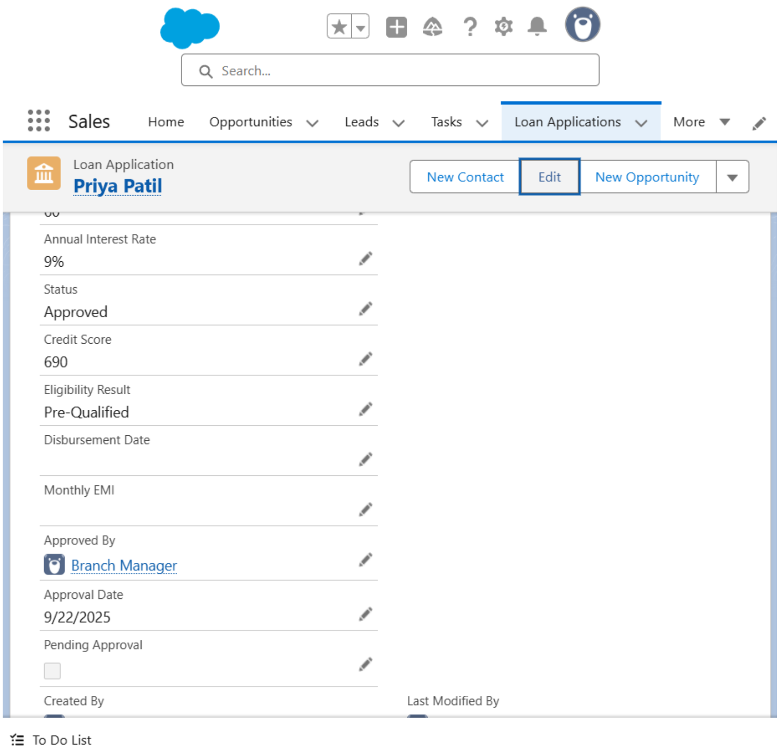



Search Setup
Setup
Home
Object Manager
Quick Find
Setup Home
Salesforce Go
Service Setup Assistant
Commerce Setup Assistant
Field Service Setup Home (Beta)
Hyperforce Assistant
Release Updates
Salesforce Mobile App
Lightning Usage
Optimizer
Sales Cloud Everywhere
ADMINISTRATION
Users
Data
Email
PLATFORM TOOLS
Subscription Management
SETUP
Flows
Flow Trigger Explorer
New Flow
Flow Definitions
All Flows
61 items • Sorted by Flow Label • Filtered by All flow definitions • Updated 4 minutes ago
Flow Label
Get External Storage Upload Config
Inbound Cancel Appointment
Inbound Modify Appointment
Inbound New Appointment
Inbound New Guest Appointment
Loan Application Email Flow
Messages Routed to Agents and Qu...
Modify Guest Service Appointment
Orchestration flow for Recurrence S...
Outbound Modify Appointment
Outbound New Appointment
Pay for Service Appointments


Flow Builder
Loan Approval Date Flow - V1
Select Elements
Auto-Layout
Last saved on 9/20/2025, 09:29 PM
Active
Run
Debug
View Tests
Save As New Version
Save
Deactivate
Record-Triggered Flow
Start
Object: Loan Application
Edit
Trigger: A record is created or updated
Conditions: 1
Optimize for: Actions and Related Recor...
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Loan A...
Run Immediately
Set Approval Date
Update Records
End
Update Records
*Label
Set Approval Date
*API Name
Set_Approval_Date
Description
*How to Find Records to Update and Set Their Values
Use the loan application record that triggered the flow
Update records related to the loan application record that triggered the flow
Use the IDs and all field values from a record or record collection
Specify conditions to identify records, and set fields individually
Set Filter Conditions
Condition Requirements to Update Record
None—Always Update Record
Set Field Values for the Loan Application Record
Field
Approval Date
Value
Running Flow Interview > CurrentDate


Search Setup
Setup
Home
Object Manager
Quick Find
Setup Home
Salesforce Go
Service Setup Assistant
Commerce Setup Assistant
Field Service Setup Home (Beta)
Hyperforce Assistant
Release Updates
Salesforce Mobile App
Lightning Usage
Optimizer
Sales Cloud Everywhere
ADMINISTRATION
Users
Data
Email
PLATFORM TOOLS
Subscription Management
SETUP
Flows
Flow Trigger Explorer
New Flow
Flow Definitions
All Flows
50+ items • Sorted by Flow Label • Filtered by All flow definitions • Updated a few seconds ago
Flow Label
Inbound Modify Appointment
Inbound New Appointment
Inbound New Guest Appointment
Loan Application Email Flow
Loan Approval Date Flow
Messages Routed to Agents and Qu...
Modify Guest Service Appointment
Orchestration flow for Recurrence S...
Outbound Modify Appointment
Outbound New Appointment
Pay for Service Appointments


Search in emails
S
Spam
Items that have been in Spam for more than 30 days will be automatically deleted.
Empty Spam now
me
8:10 pm
"Your Loan Application has been submi...
<p><span style="font-family: serif;">De...
me
8:04 pm
"Your Loan Application has been submi...
<p><span style="font-family: serif;">De...
Compose
99+


Search...
Sales
Home
Opportunities
Leads
Tasks
Loan Applications
More
Loan Application
Priya Patil
New Contact
Edit
New Opportunity
Annual Interest Rate
9%
Status
Approved
Credit Score
690
Eligibility Result
Pre-Qualified
Disbursement Date
Monthly EMI
Approved By
Branch Manager
Approval Date
9/22/2025
Pending Approval
Created By
Last Modified By
To Do List

5. Other Automation Features

- Custom Notifications (not required for this project).
- Scheduled Flows (optional, not used in this project).

Phase -5: Process Automation (Admin)

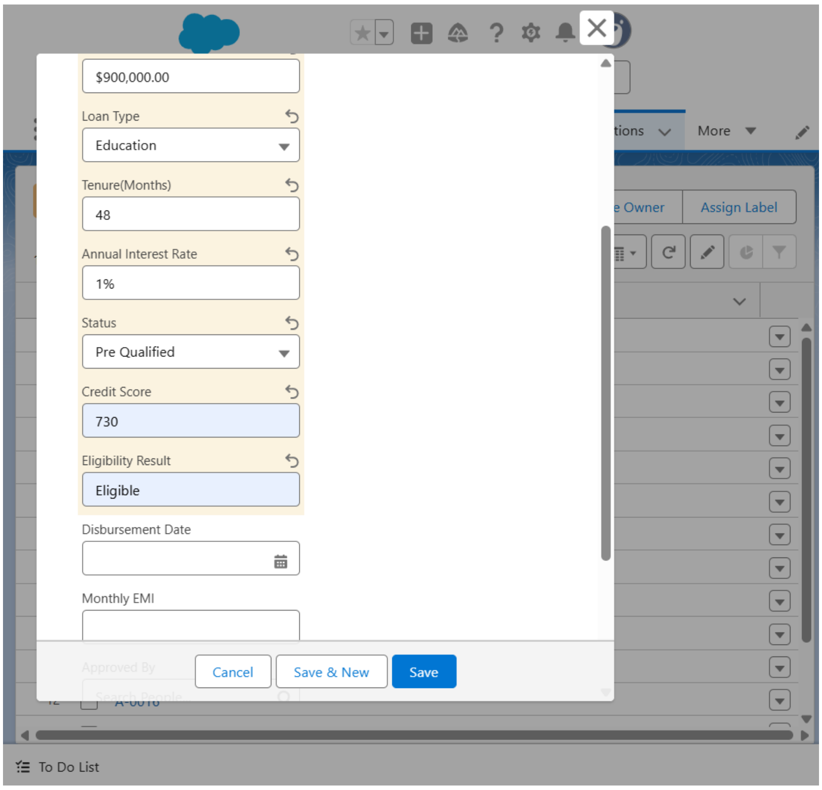
1. EMI Calculation Class

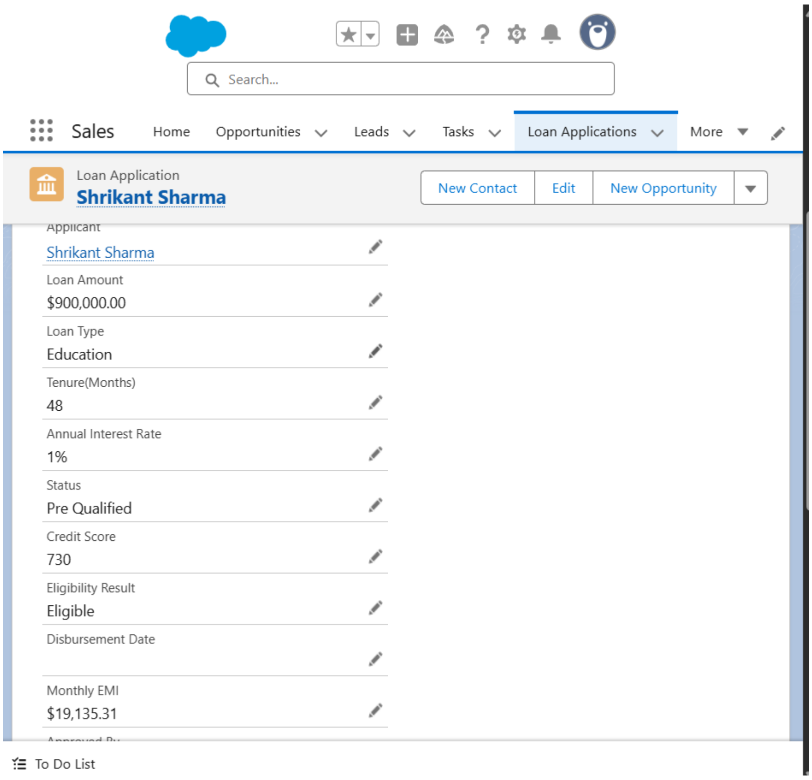
- **Class Name:** EMI_Calculation
- **Purpose:** Calculate **Monthly EMI** based on Loan Amount, Annual Interest Rate, and Tenure.
- **Outcome:** EMI field in Loan Application is automatically populated when a record is created.
- **Tech Used:** Apex class, for loops, if conditions.

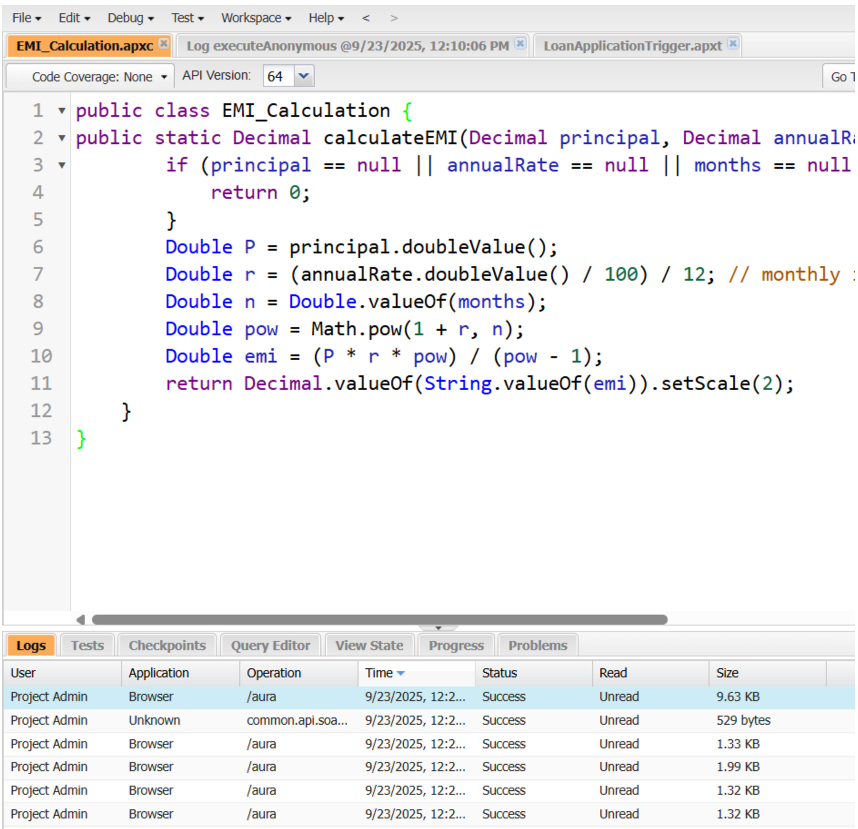
---

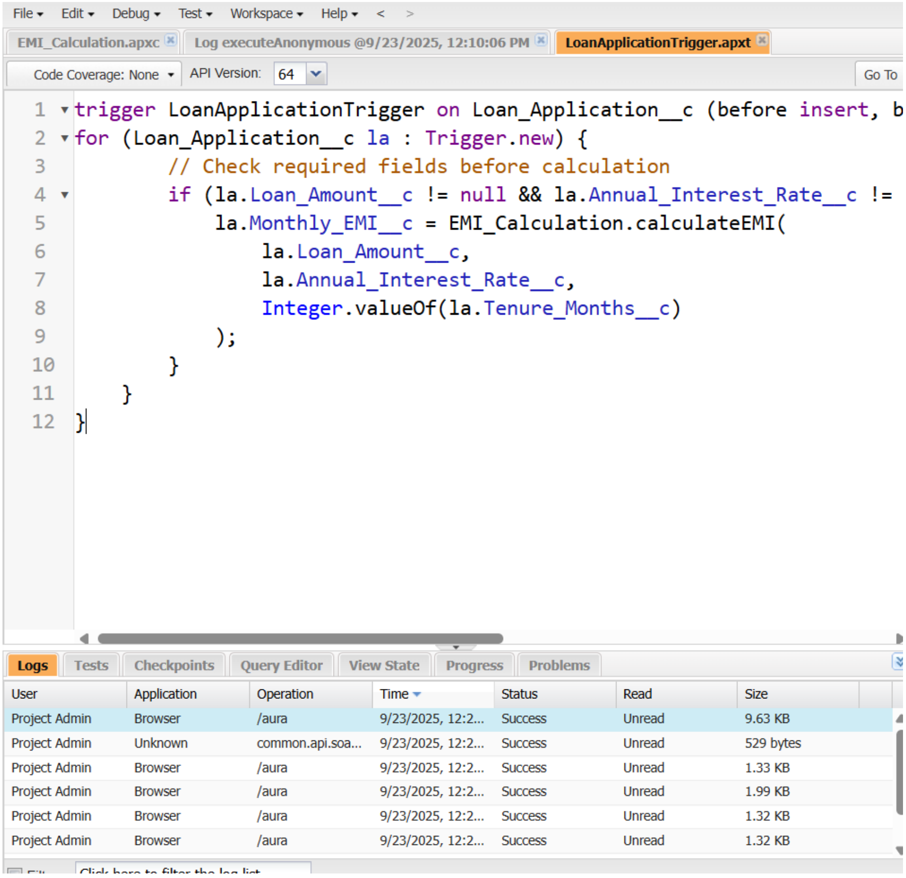
2. Loan Application Trigger

- **Trigger Type:** Before Insert/Update on Loan Application.
- **Purpose:** Calls EMI_Calculation class to auto-fill EMI field.
- **Tech Used:** Trigger, for loops, control statements.




Search...
Sales
Home
Opportunities
Leads
Tasks
Loan Applications
More
Loan Application
Shrikant Sharma
New Contact
Edit
New Opportunity
Applicant
Shrikant Sharma
Loan Amount
$900,000.00
Loan Type
Education
Tenure(Months)
48
Annual Interest Rate
1%
Status
Pre Qualified
Credit Score
730
Eligibility Result
Eligible
Disbursement Date
Monthly EMI
$19,135.31
To Do List


File
Edit
Debug
Test
Workspace
Help
EMI_Calculation.apxc
Log executeAnonymous @9/23/2025, 12:10:06 PM
LoanApplicationTrigger.apxt
Code Coverage: None
API Version:
64
public class EMI_Calculation {
public static Decimal calculateEMI(Decimal principal, Decimal annualR
if (principal == null || annualRate == null || months == null
return 0;
}
Double P = principal.doubleValue();
Double r = (annualRate.doubleValue() / 100) / 12; // monthly
Double n = Double.valueOf(months);
Double pow = Math.pow(1 + r, n);
Double emi = (P * r * pow) / (pow - 1);
return Decimal.valueOf(String.valueOf(emi)).setScale(2);
}
}
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems
User
Application
Operation
Time
Status
Read
Size
Project Admin
Browser
/aura
9/23/2025, 12:2...
Success
Unread
9.63 KB
Project Admin
Unknown
common.api.soa...
9/23/2025, 12:2...
Success
Unread
529 bytes
Project Admin
Browser
/aura
9/23/2025, 12:2...
Success
Unread
1.33 KB
Project Admin
Browser
/aura
9/23/2025, 12:2...
Success
Unread
1.99 KB
Project Admin
Browser
/aura
9/23/2025, 12:2...
Success
Unread
1.32 KB
Project Admin
Browser
/aura
9/23/2025, 12:2...
Success
Unread
1.32 KB

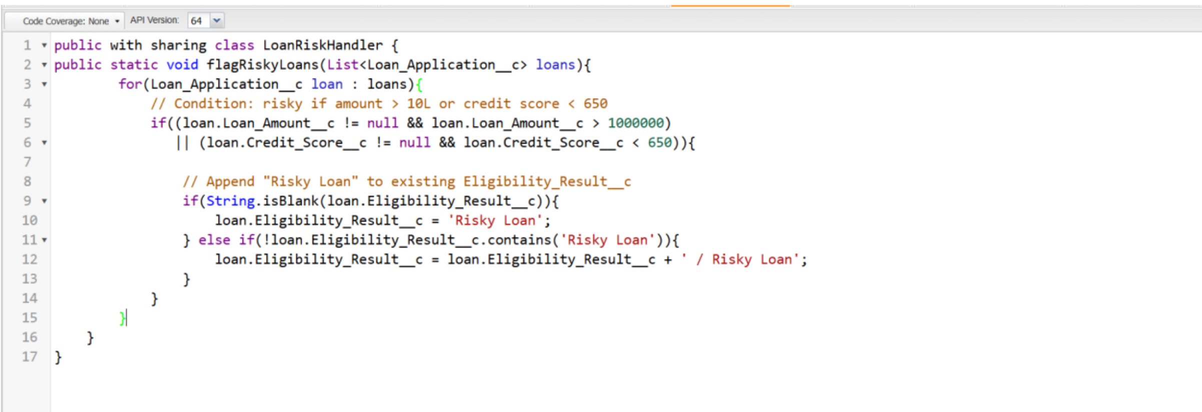


Why is it useful?

Apex Concept	**Reflects In**	**Useful For**	**Example**
Trigger + Handler Pattern	Loan_Application__c	Loan Officer, Branch Manager	Auto-flag risky loans without affecting EMI calculation
Control Statements	Eligibility_Result__c	Officers can quickly identify high-risk applications	Amount > 10L or Credit Score < 650 → flagged
Reporting	Eligibility_Result__c	Branch Manager	Filter risky loans.

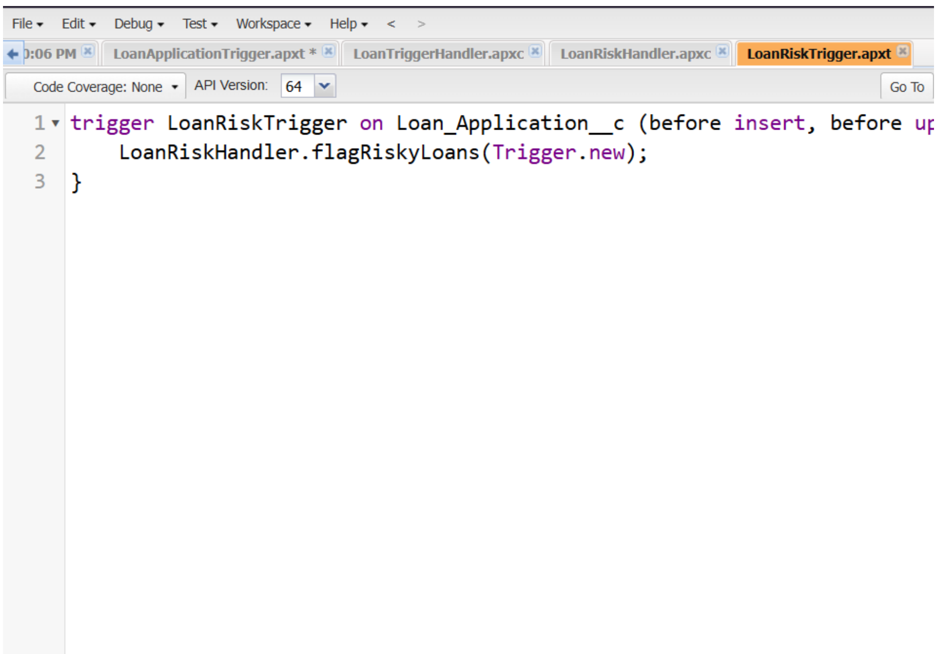
3. Risky Loan Handler

- **Class Name:** LoanRiskHandler
- **Purpose:** Identify risky loans based on:
    - Loan Amount > 10 Lakh
    - Credit Score < 650
- Updates **Eligibility Result** field with “Risky Loan” without overwriting existing values.
- **Tech Used:** Apex class, for loops, if conditions, string operations.

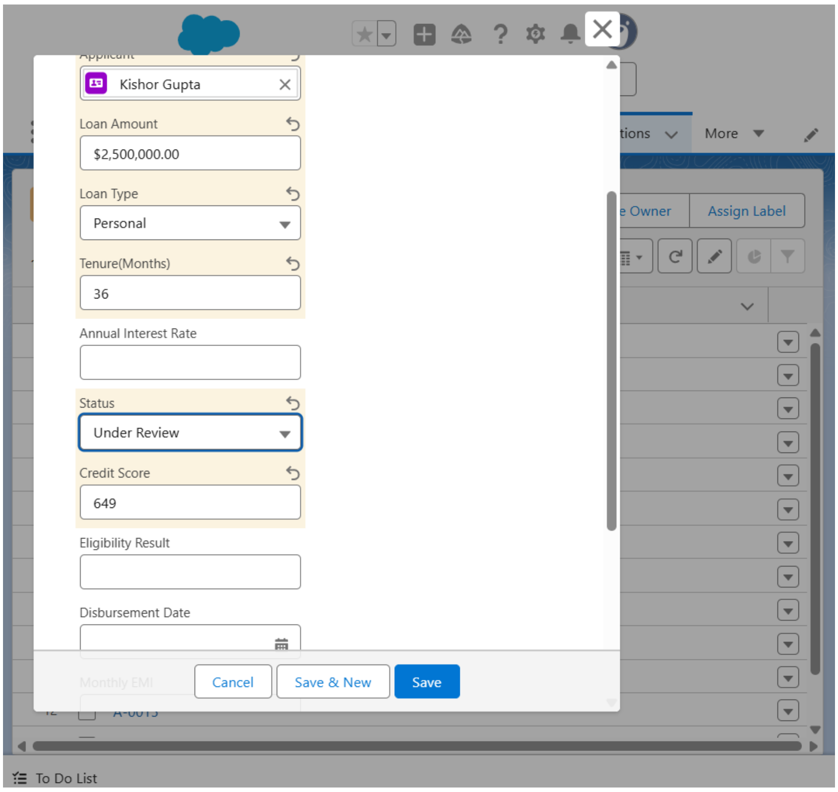


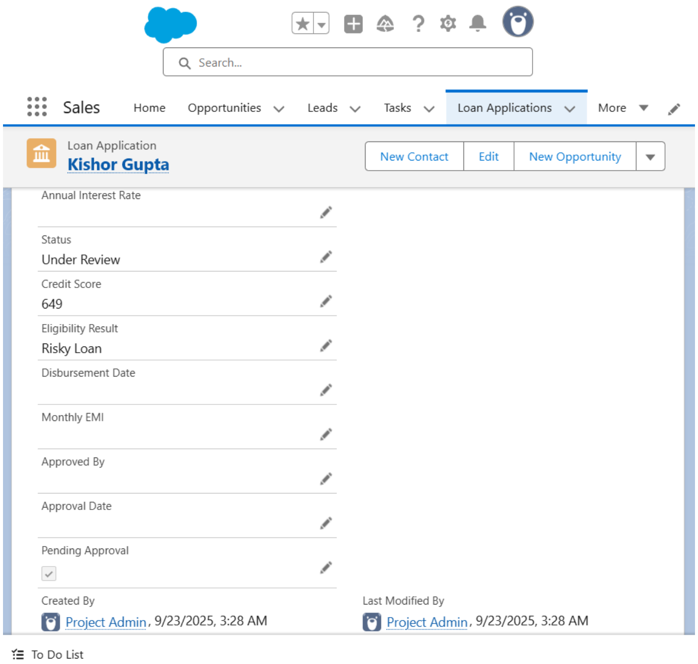
```
public with sharing class LoanRiskHandler {
public static void flagRiskyLoans(List<Loan_Application__c> loans){
        for(Loan_Application__c loan : loans){
            // Condition: risky if amount > 10L or credit score < 650
            if((loan.Loan_Amount__c != null && loan.Loan_Amount__c > 1000000)
                || (loan.Credit_Score__c != null && loan.Credit_Score__c < 650)){

                // Append "Risky Loan" to existing Eligibility_Result__c
                if(String.isBlank(loan.Eligibility_Result__c)){
                    loan.Eligibility_Result__c = 'Risky Loan';
                } else if(!loan.Eligibility_Result__c.contains('Risky Loan')){
                    loan.Eligibility_Result__c = loan.Eligibility_Result__c + ' / Risky Loan';
                }
            }
        }
    }
}
```




```
trigger LoanRiskTrigger on Loan_Application__c (before insert, before up
    LoanRiskHandler.flagRiskyLoans(Trigger.new);
}
```


Kishor Gupta
Loan Amount
$2,500,000.00
Loan Type
Personal
Tenure(Months)
36
Annual Interest Rate
Status
Under Review
Credit Score
649
Eligibility Result
Disbursement Date
Cancel
Save & New
Save
More
Assign Label
To Do List


Search...
Sales
Home
Opportunities
Leads
Tasks
Loan Applications
More
Loan Application
Kishor Gupta
New Contact
Edit
New Opportunity
Annual Interest Rate
Status
Under Review
Credit Score
649
Eligibility Result
Risky Loan
Disbursement Date
Monthly EMI
Approved By
Approval Date
Pending Approval
Created By
Project Admin, 9/23/2025, 3:28 AM
Last Modified By
Project Admin, 9/23/2025, 3:28 AM
To Do List

4. Acknowledged but not implemented

- Batch Apex, Queueable Apex, Scheduled Apex
- Future Methods, Exception Handling, Test Classes, Asynchronous Processing
- **Note:** For this project, focus was on **EMI calculation and risky loan identification**.

---

5. Automation Outcome

- Screenshots included:
  - EMI automatically calculated after creating Loan Application record.
  - Risky loans flagged in Eligibility Result during record creation.

Phase 6: Process Automation (Admin)

In this phase, the Salesforce user interface was customized to provide a smooth and intuitive experience for users managing loans.

1.Lightning App Builder:

A custom app named **Loan & Credit Approval** was created. The navigation bar includes the key objects: **Loan Application, Payment, Credit Check, and Loan Product, Accounts, Contacts** allowing users to access all loan-related functionalities from a single app.

2.Tabs:

Custom tabs for each object were already created during object setup, ensuring easy access and proper visibility for the required profiles.

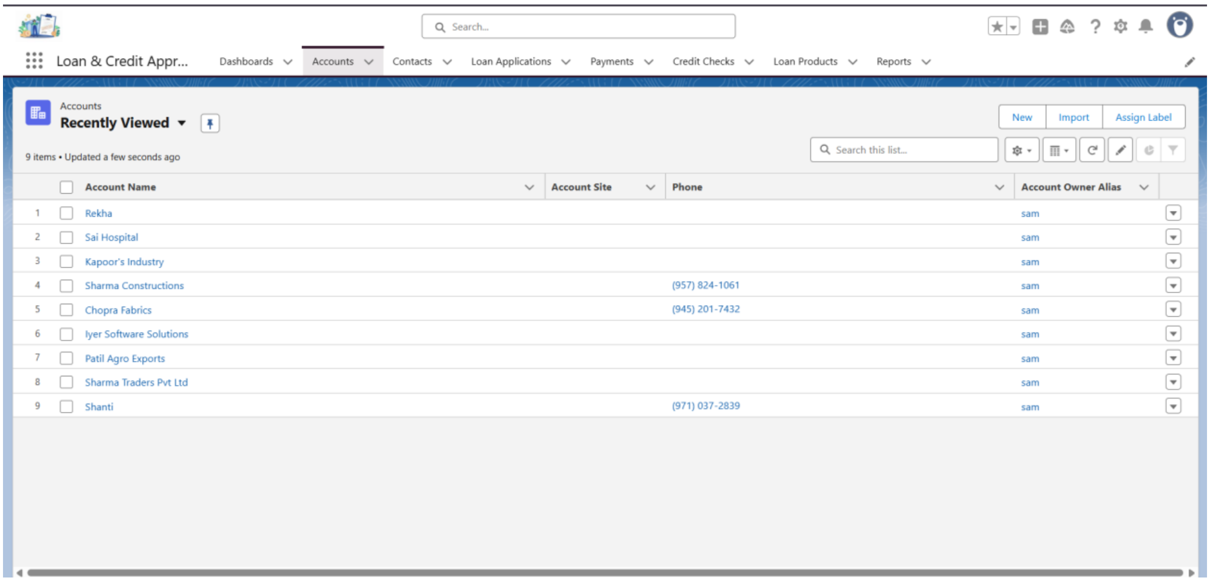
3.Record Pages:

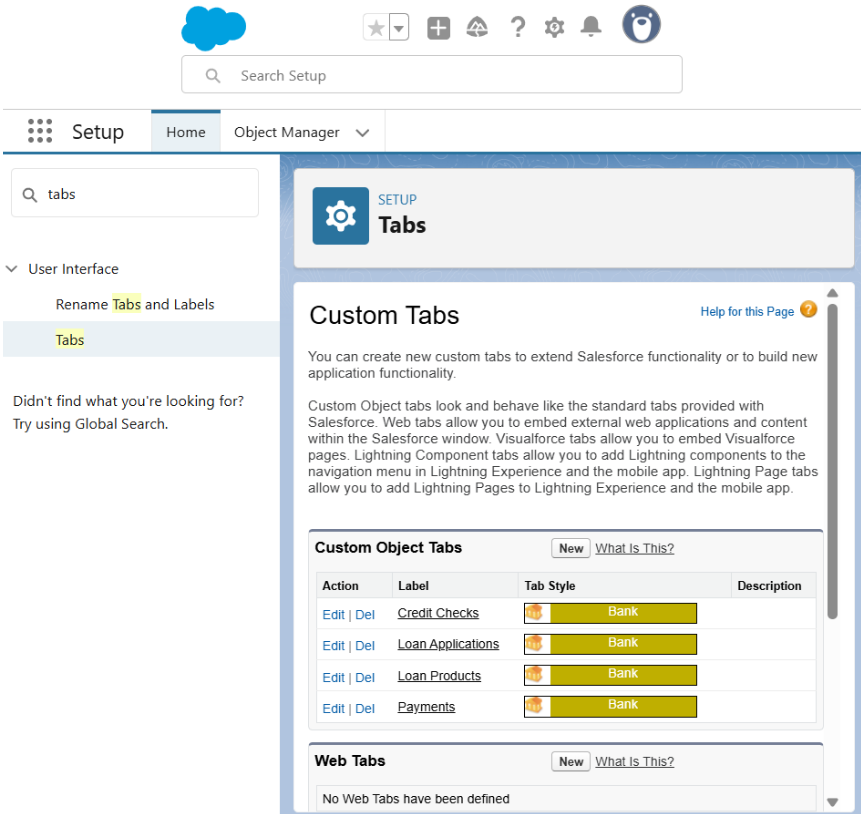
The **Loan Application record page** was customized using Lightning App Builder:

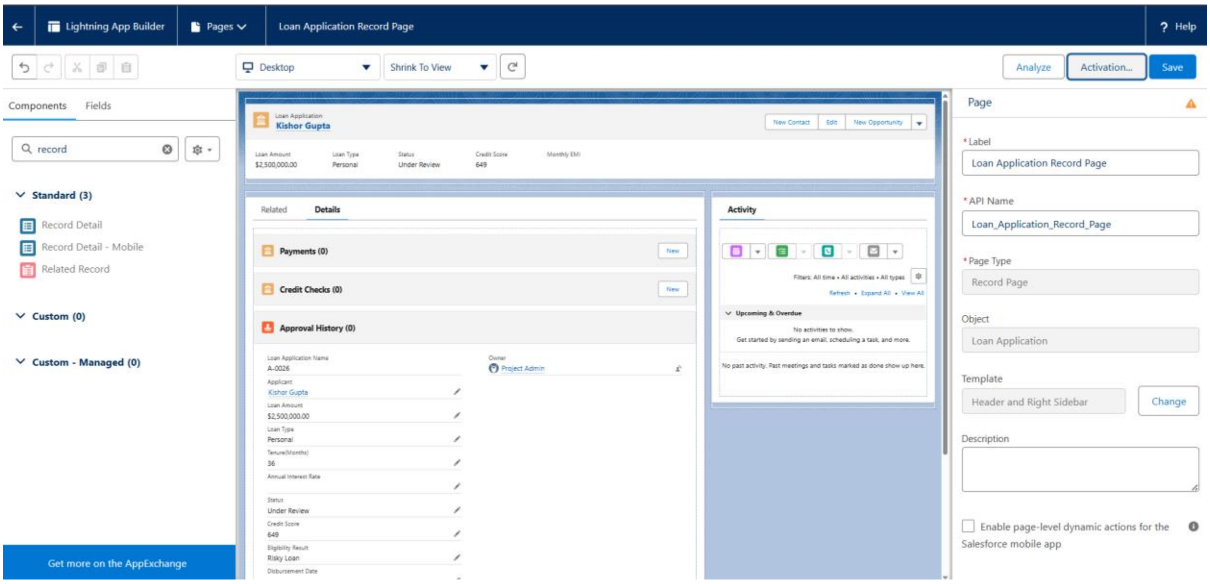
- **Record Detail** component displays fields like Loan Amount, EMI, Eligibility Result, and Risky Flag.
- **Related Lists** component shows associated Payments and Credit Checks.
- The page was saved, activated, and assigned as **Org Default**, so all users see the updated layout.

Outcome:

Users can view complete loan information and related transactions in a single record page. This improves efficiency for **Loan Officers** and **Managers**, enabling them to quickly access and assess loan details without navigating through multiple pages.


Search...
Loan & Credit Appr...
Dashboards
Accounts
Contacts
Loan Applications
Payments
Credit Checks
Loan Products
Reports
Accounts
Recently Viewed
New
Import
Assign Label
9 items • Updated a few seconds ago
Search this list...
Account Name
Account Site
Phone
Account Owner Alias
1 Rekha sam
2 Sai Hospital sam
3 Kapoor's Industry sam
4 Sharma Constructions (957) 824-1061 sam
5 Chopra Fabrics (945) 201-7432 sam
6 Iyer Software Solutions sam
7 Patil Agro Exports sam
8 Sharma Traders Pvt Ltd sam
9 Shanti (971) 037-2839 sam


Search Setup
Setup
Home
Object Manager
tabs
User Interface
Rename Tabs and Labels
Tabs
Didn't find what you're looking for?
Try using Global Search.
SETUP
Tabs
Custom Tabs
Help for this Page
You can create new custom tabs to extend Salesforce functionality or to build new application functionality.
Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.
Custom Object Tabs
New
What Is This?
Action
Label
Tab Style
Description
Edit | Del Credit Checks Bank
Edit | Del Loan Applications Bank
Edit | Del Loan Products Bank
Edit | Del Payments Bank
Web Tabs
New
What Is This?
No Web Tabs have been defined

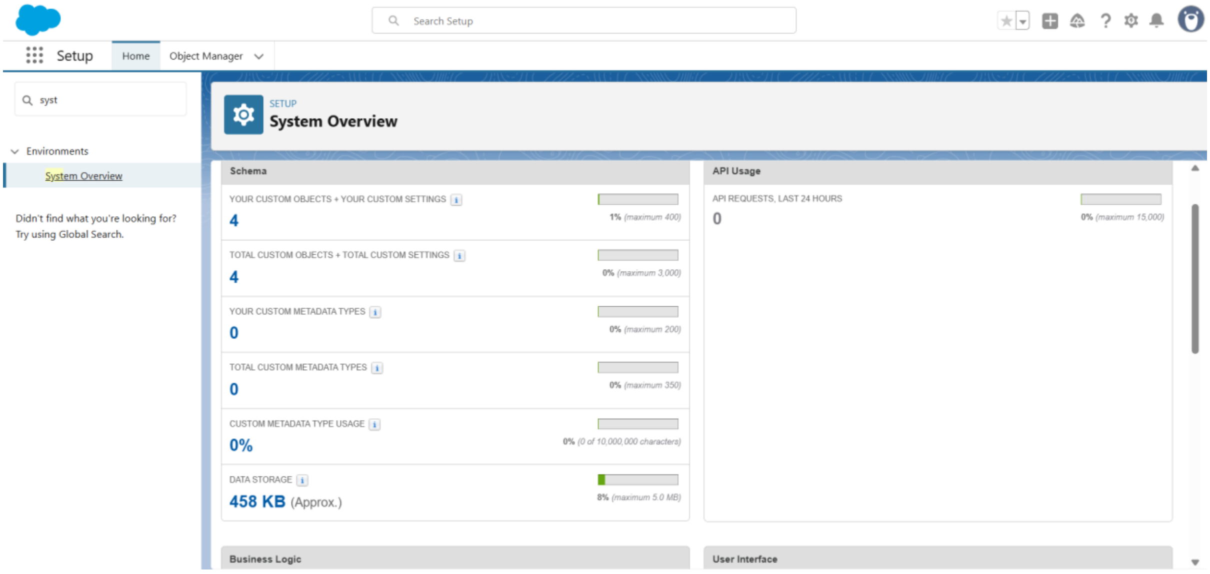

Lightning App Builder
Pages
Loan Application Record Page
Help
Desktop
Shrink To View
Analyze
Activation...
Save
Components
Fields
record
Standard (3)
Record Detail
Record Detail - Mobile
Related Record
Custom (0)
Custom - Managed (0)
Get more on the AppExchange
Kishor Gupta
Related
Details
Payments (0)
Credit Checks (0)
Approval History (0)
Activity
Page
Label
Loan Application Record Page
API Name
Loan_Application_Record_Page
Page Type
Record Page
Object
Loan Application
Template
Header and Right Sidebar
Change
Description
Enable page-level dynamic actions for the Salesforce mobile app

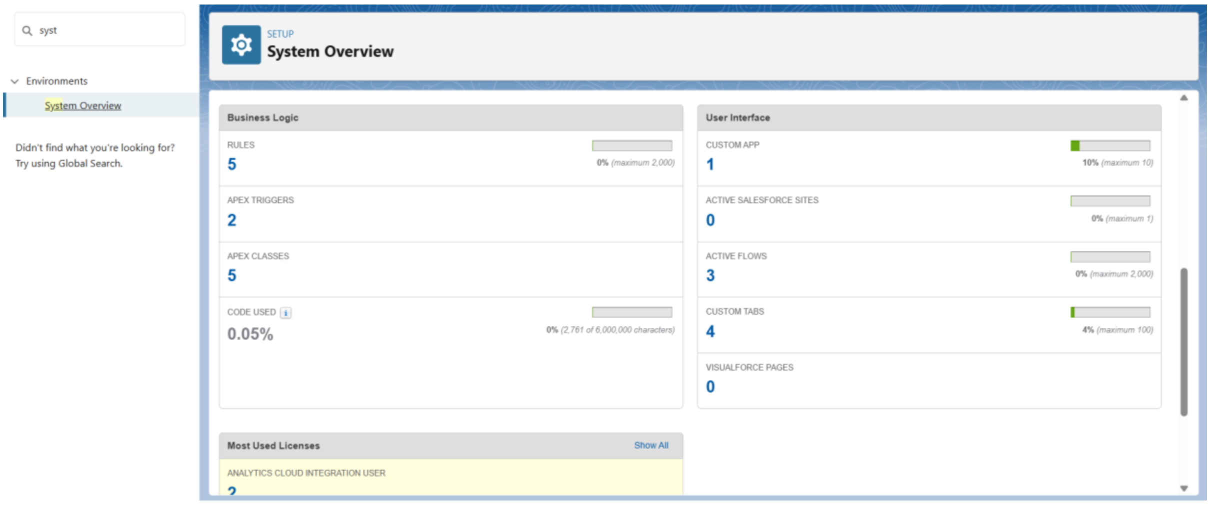
Phase-7: Integration & External Access

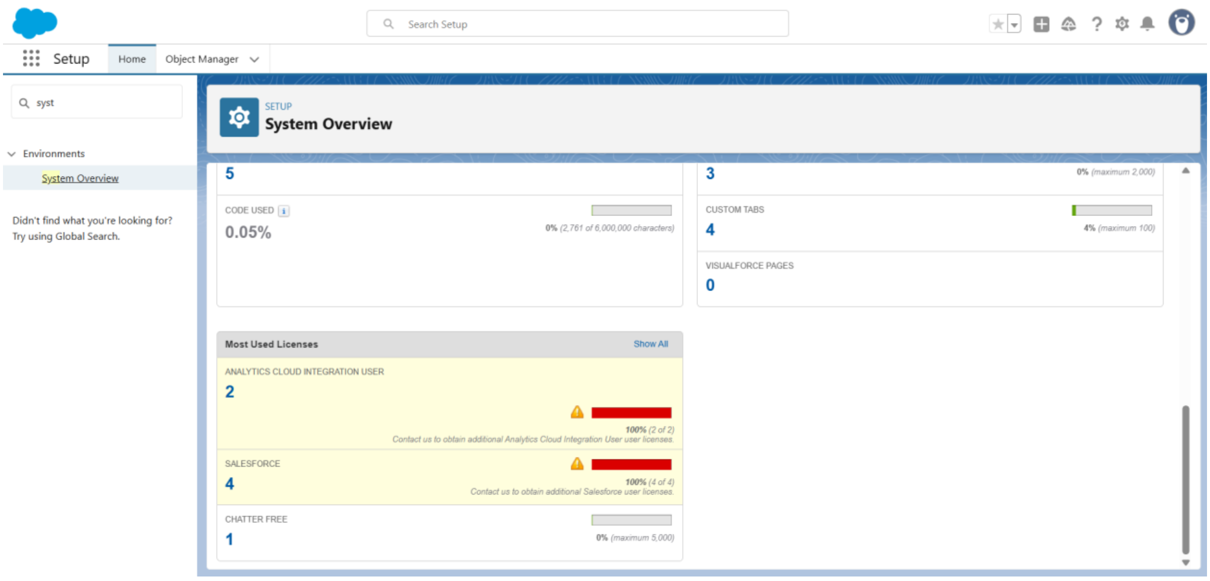
This phase covers Salesforce integration capabilities and external access mechanisms. While the following features were acknowledged for understanding, they were **not implemented** in this project:

- **Named Credentials** – Centralized authentication for external services.
- **External Services** – Integrating external APIs declaratively.
- **Web Services (REST/SOAP)** – Exposing Salesforce functionality or consuming external services.
- **Callouts** – Making HTTP requests to external endpoints.
- **Platform Events & Change Data Capture** – Real-time event-driven architecture.
- **Salesforce Connect** – Access external data without storing it in Salesforce.
- **API Limits** – Understanding usage restrictions for integration.
- **OAuth & Authentication** – Secure access for external apps.
- **Remote Site Settings** – Configuration needed for callouts to external URLs.

Project Note: No integrations were implemented. A **screenshot of System Overview** was included to demonstrate awareness of org-level settings and integration readiness.


Search Setup
Setup
Home
Object Manager
syst
Environments
System Overview
Didn't find what you're looking for?
Try using Global Search.
SETUP
System Overview
Schema
YOUR CUSTOM OBJECTS + YOUR CUSTOM SETTINGS
4
1% (maximum 400)
TOTAL CUSTOM OBJECTS + TOTAL CUSTOM SETTINGS
4
0% (maximum 3,000)
YOUR CUSTOM METADATA TYPES
0
0% (maximum 200)
TOTAL CUSTOM METADATA TYPES
0
0% (maximum 350)
CUSTOM METADATA TYPE USAGE
0%
0% (0 of 10,000,000 characters)
DATA STORAGE
458 KB (Approx.)
8% (maximum 5.0 MB)
API Usage
API REQUESTS, LAST 24 HOURS
0
0% (maximum 15,000)
Business Logic
User Interface


syst
Environments
System Overview
Didn't find what you're looking for?
Try using Global Search.
SETUP
System Overview
Business Logic
RULES
5
0% (maximum 2,000)
APEX TRIGGERS
2
APEX CLASSES
5
CODE USED
0.05%
0% (2,761 of 6,000,000 characters)
User Interface
CUSTOM APP
1
10% (maximum 10)
ACTIVE SALESFORCE SITES
0
0% (maximum 1)
ACTIVE FLOWS
3
0% (maximum 2,000)
CUSTOM TABS
4
4% (maximum 100)
VISUALFORCE PAGES
0
Most Used Licenses
Show All
ANALYTICS CLOUD INTEGRATION USER


Search Setup
Setup
Home
Object Manager
syst
Environments
System Overview
Didn't find what you're looking for?
Try using Global Search.
SETUP
System Overview
5
3
0% (maximum 2,000)
CODE USED
0.05%
0% (2,761 of 6,000,000 characters)
CUSTOM TABS
4
4% (maximum 100)
VISUALFORCE PAGES
0
Most Used Licenses
Show All
ANALYTICS CLOUD INTEGRATION USER
2
100% (2 of 2)
Contact us to obtain additional Analytics Cloud Integration User user licenses.
SALESFORCE
4
100% (4 of 4)
Contact us to obtain additional Salesforce user licenses.
CHATTER FREE
1
0% (maximum 5,000)

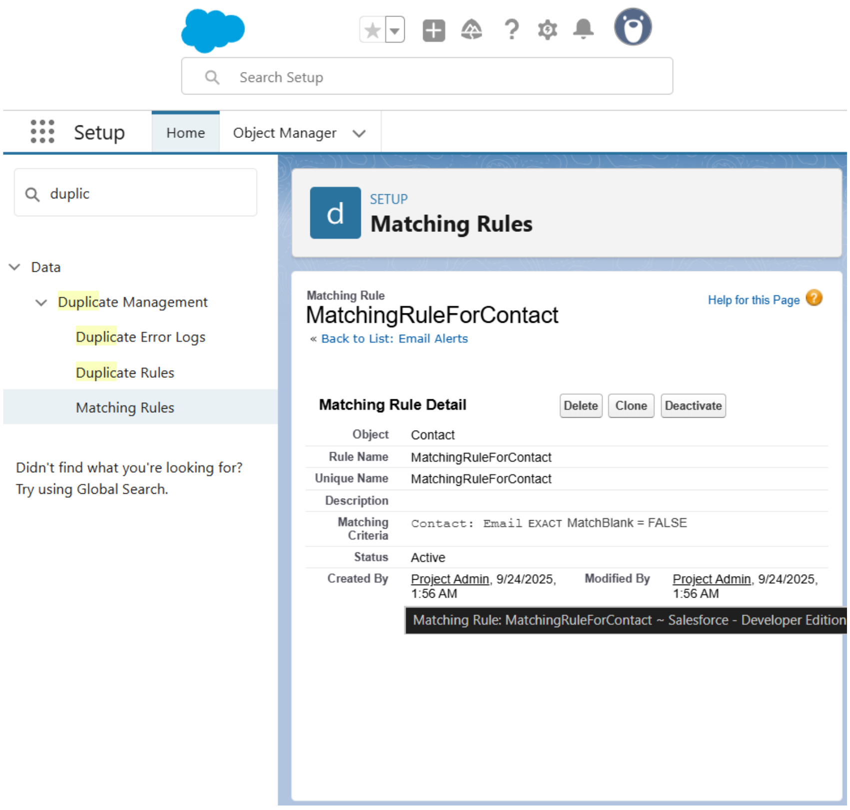
Phase-8: Integration & External Access

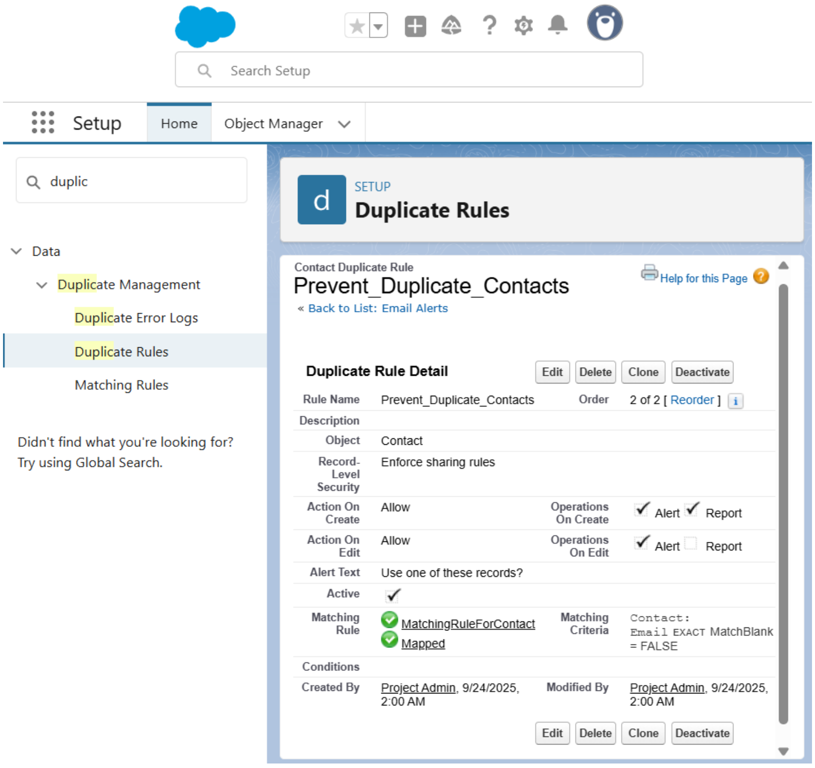
1. Duplicate Rules

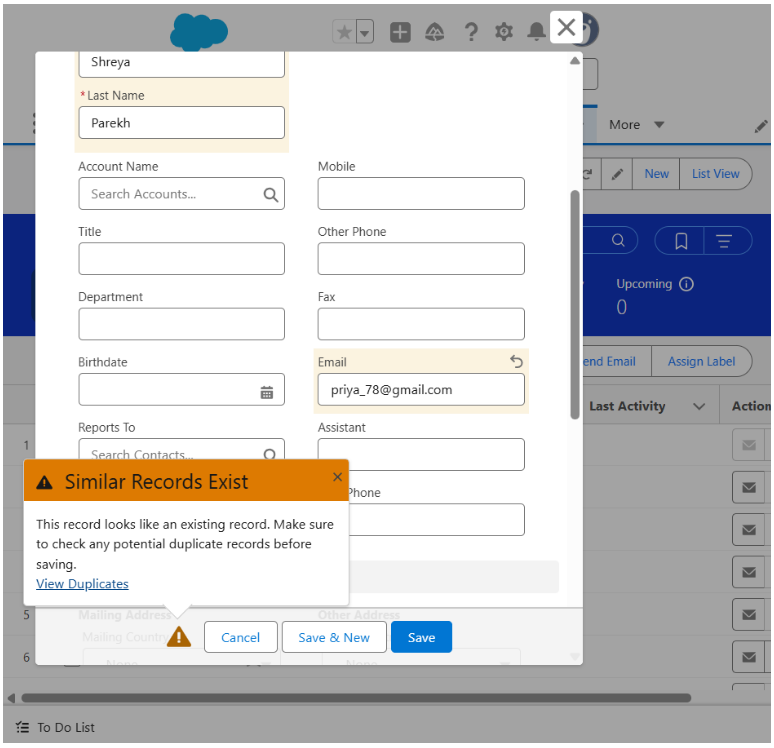
To maintain clean and accurate data in the system, the following steps were completed:

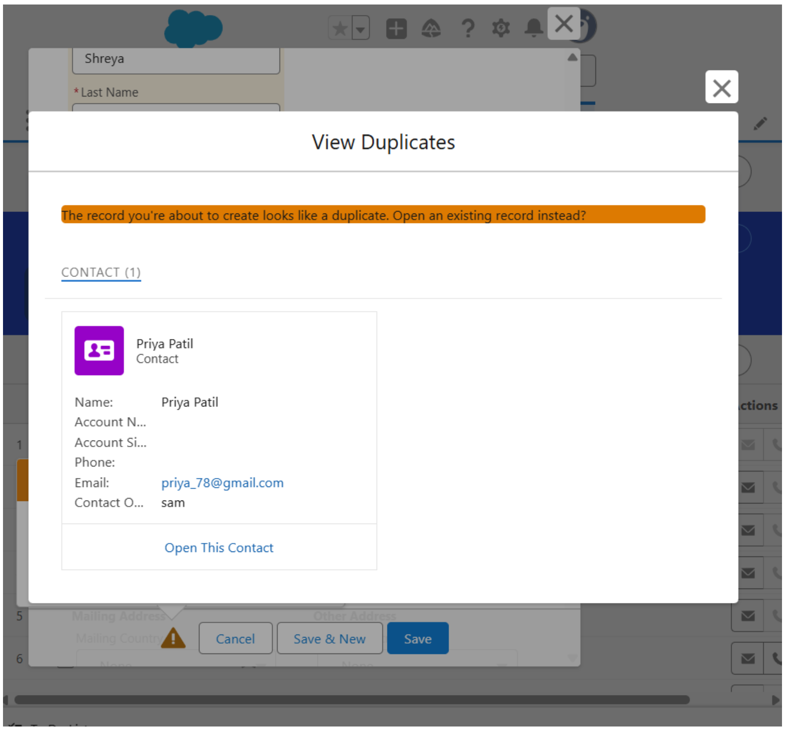
- A **Matching Rule** named **MatchingRuleForContact** was created to identify duplicate contacts based on the **Email field**.
- A **Duplicate Rule** named **PreventDuplicateContacts** was configured.
- When a user tried to insert a new Contact with an **existing Email ID**, Salesforce displayed a **warning message**: *"Similar records exist"*.
- A screenshot was captured showing this validation, along with the **"View Duplicates"** option which allows users to review potential duplicates before saving.

This ensures that multiple records with the same email cannot be created, thereby improving data quality.




Search Setup
Setup
Home
Object Manager
duplic
Data
Duplicate Management
Duplicate Error Logs
Duplicate Rules
Matching Rules
Didn't find what you're looking for?
Try using Global Search.
SETUP
Duplicate Rules
Contact Duplicate Rule
Prevent_Duplicate_Contacts
Help for this Page
« Back to List: Email Alerts
Duplicate Rule Detail
Edit
Delete
Clone
Deactivate
Rule Name
Prevent_Duplicate_Contacts
Order
2 of 2 [Reorder]
Description
Object
Contact
Record-Level Security
Enforce sharing rules
Action On Create
Allow
Operations On Create
Alert
Report
Action On Edit
Allow
Operations On Edit
Alert
Report
Alert Text
Use one of these records?
Active
Matching Rule
MatchingRuleForContact
Mapped
Matching Criteria
Contact: Email EXACT MatchBlank = FALSE
Conditions
Created By
Project Admin, 9/24/2025, 2:00 AM
Modified By
Project Admin, 9/24/2025, 2:00 AM


Shreya
*Last Name
Parekh
Account Name
Search Accounts...
Mobile
Title
Other Phone
Department
Fax
Birthdate
Email
priya_78@gmail.com
Reports To
Search Contacts...
Assistant
Similar Records Exist
This record looks like an existing record. Make sure to check any potential duplicate records before saving.
View Duplicates
Phone
Cancel
Save & New
Save
More
New
List View
Upcoming
0
Assign Label
Last Activity
Action
To Do List



---

2. Data Import Wizard & Data Loader

- These tools are typically used to import or update bulk records into Salesforce.
- Since existing records were already created manually for this project, these tools were **not used**.

---

3. Data Export & Backup

- Data Export is used to generate backups of Salesforce records for security and compliance.
- As this was a project setup, scheduled backups were **not required**.

---

4. Change Sets

- Change Sets allow deployment of metadata (custom objects, fields, rules, etc.) from one Salesforce org to another.
- While not implemented, this tool was **explored** to understand deployment processes.

---

5. Unmanaged vs Managed Packages

- **Unmanaged Packages** are used for sharing code/configurations that can be modified after installation (commonly used in development or academic projects).
- **Managed Packages** are versioned and locked, generally used for commercial distribution on the AppExchange.
- In this project, packages were **not implemented**, but the difference between the two was **studied for understanding Salesforce app distribution**.

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6. ANT Migration Tool & VS Code with SFDX

- These tools are used by developers for advanced deployments and version control.
- Although not directly used, **VS Code with SFDX** was acknowledged as a modern development environment for Apex, Lightning, and deployments.

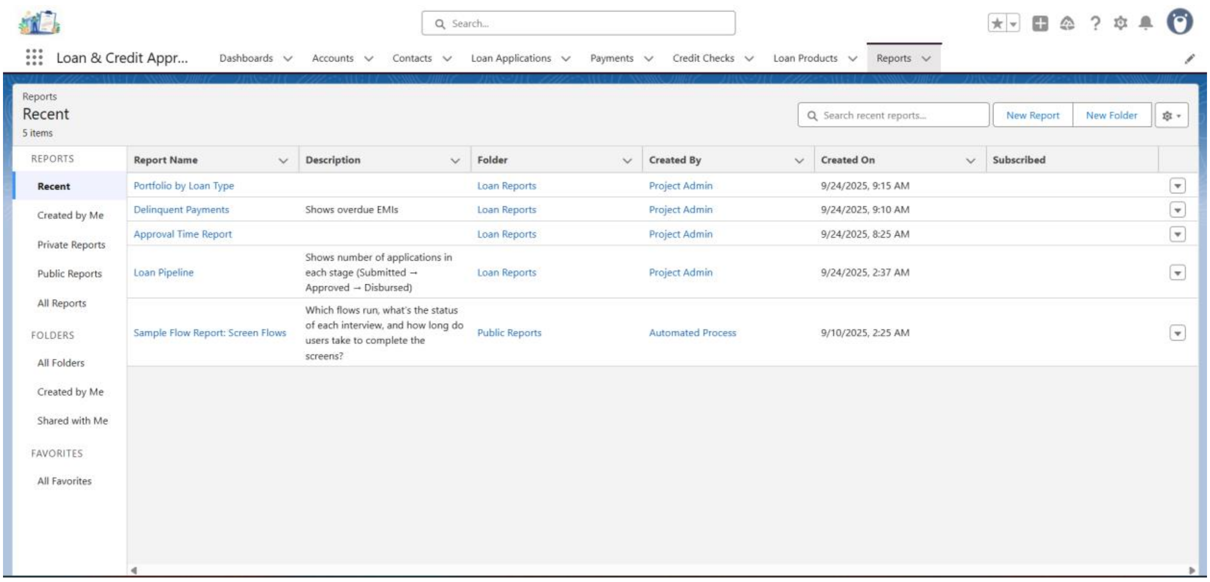
Phase – 9: Reporting, Dashboards & Security Review

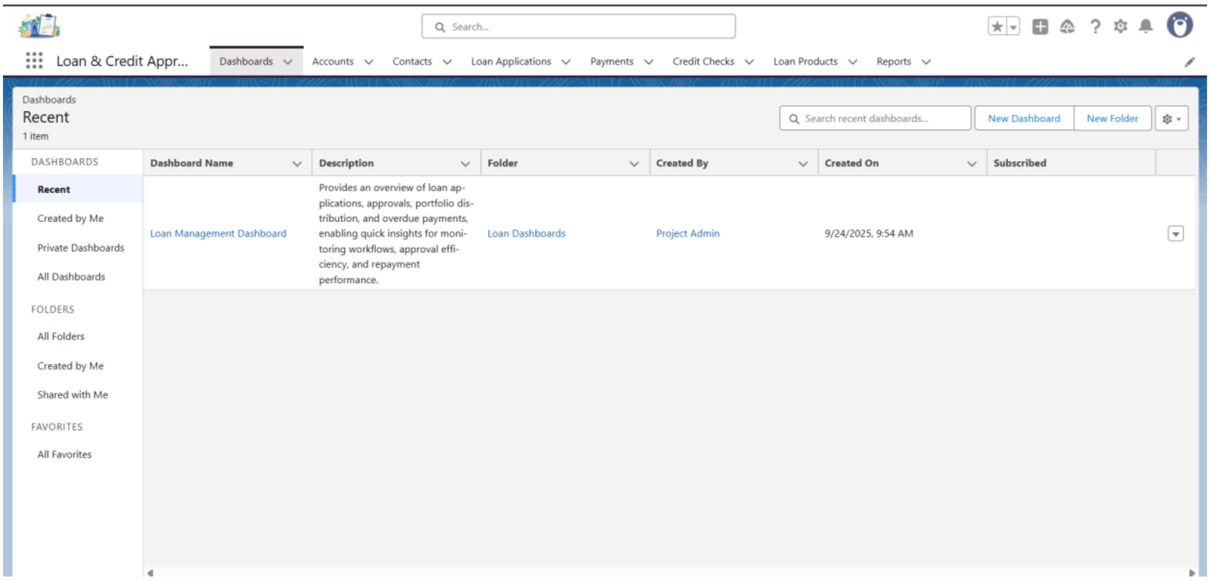
1. Reports

Four types of reports were created under a new folder named **Loan Reports**:

- **Loan Pipeline Report (Funnel Display)** – Shows the pipeline of loans across different approval stages, represented visually with a funnel chart for easy tracking.
- **Portfolio by Loan Type (Donut Display)** – Highlights the distribution of loans based on loan type using a donut chart.
- **Approval Time Report (Tabular Format)** – Displays the time taken for each loan approval in a simple tabular view.
- **Delinquent Payments Report (Tabular Format)** – Tracks overdue payments, making it easier to identify delayed customers.

These reports provide insights into loan performance, customer portfolio, and payment status.





2. Report Types

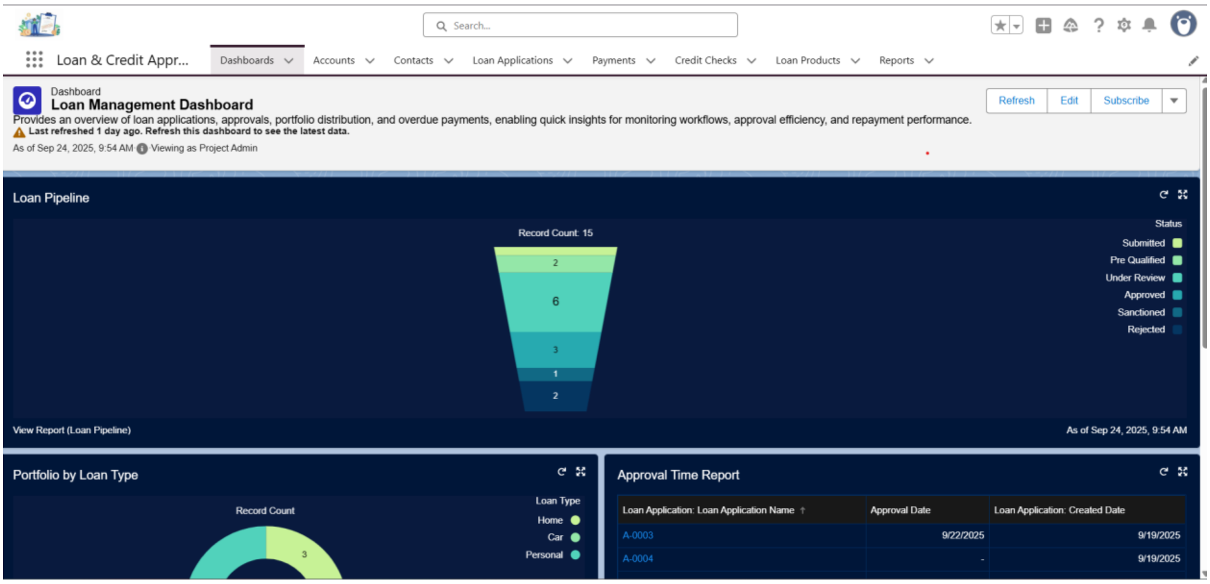
Custom report types were defined for the Loan Application object to ensure tailored reporting. This allowed linking related objects and fields, giving flexibility in data analysis.

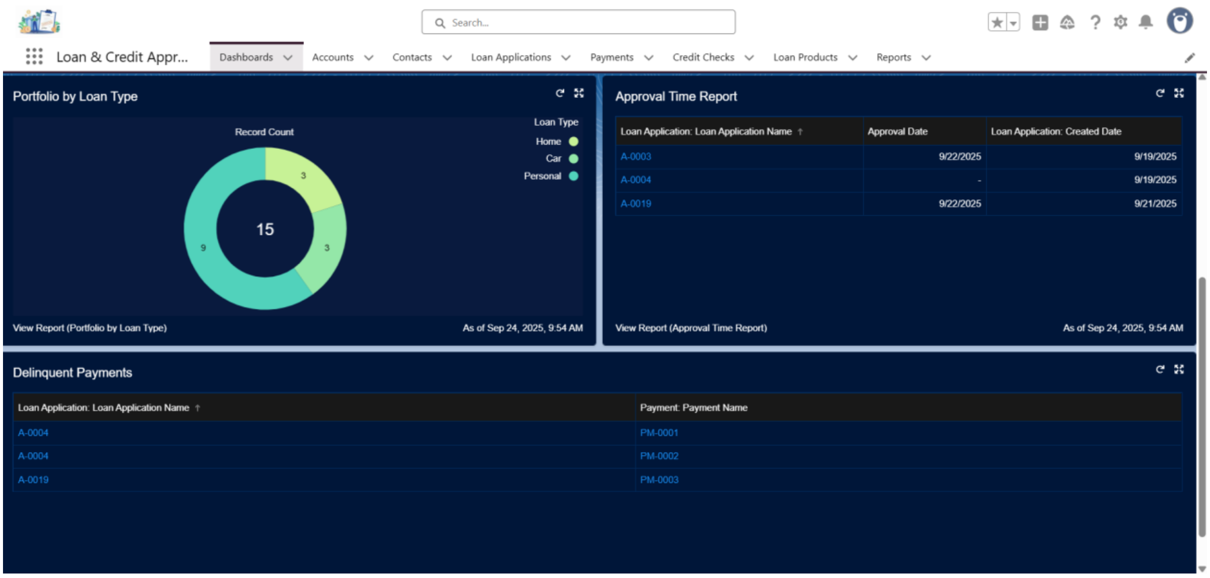
3. Dashboards

A dedicated folder named **Loan Dashboards** was created, and a **Loan Management Dashboard** was built. This dashboard consolidates all key reports into a single visual interface:

- **Funnel (Loan Pipeline)** – Loan progress overview.
- **Donut (Loan Portfolio by Type)** – Distribution by loan type.
- **Tables (Approval Time & Delinquent Payments)** – Tabular insights for detailed analysis.

This dashboard enables stakeholders to quickly evaluate business health and loan performance trends.





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4. Security Essentials

- **Sharing Settings** – Configured for the Loan Application object to restrict access and ensure only authorized users can view or edit loan records.
- **Field-Level Security (FLS)** – Sensitive fields like *Salary* and *Credit Score* were hidden from normal users while visible to managers/admins.
- **Audit Trail** – Setup Audit Trail was enabled and reviewed to track all configuration changes, ensuring accountability. Screenshots were captured as proof.

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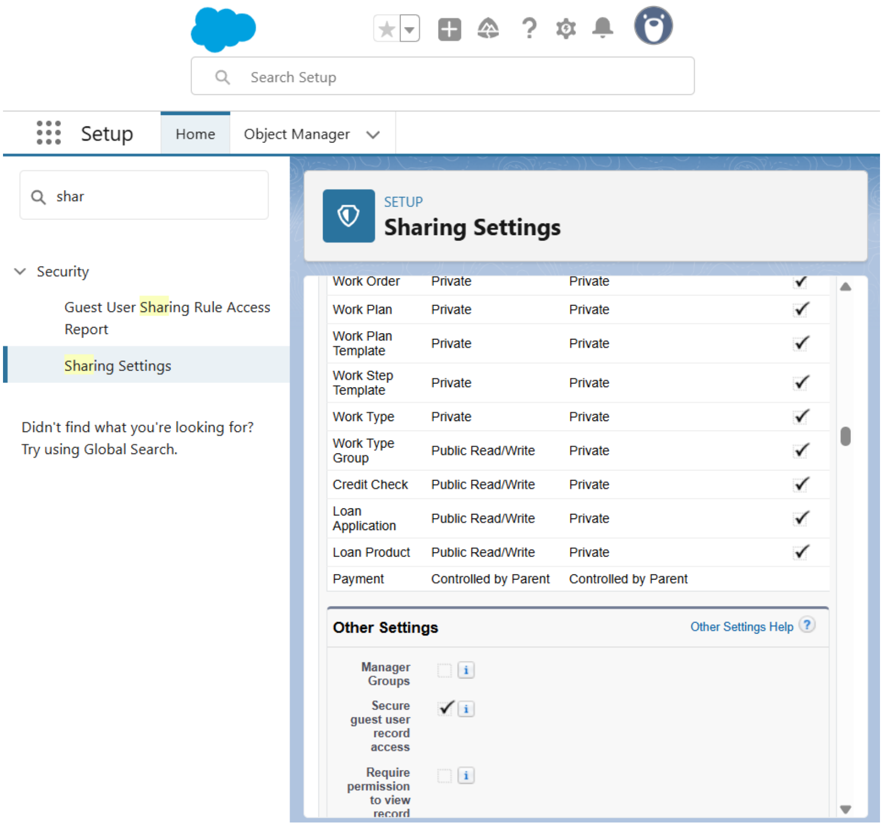
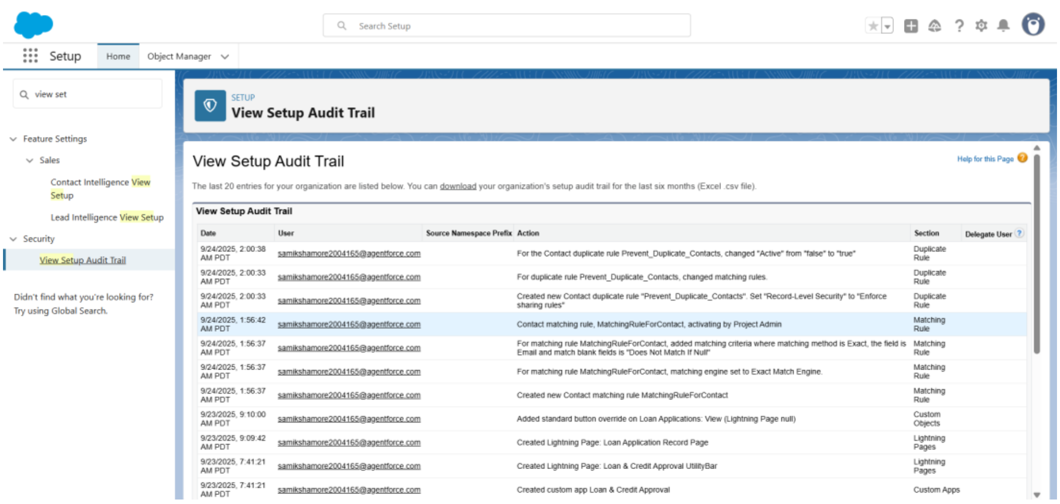
5. Additional Security Settings

- **Session Settings** – Reviewed to ensure secure login sessions.
- **Login IP Ranges** – Considered for restricting access to trusted networks (not enforced in this project, but included as a best practice).





Demo video: https://drive.google.com/file/d/1Foew56TPbXBo3p7EGMykDijkJm1gcguF/view?usp=drive_link