

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.

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with icons for Home, Object Manager, and a search bar labeled "Search Setup". Below this is a sidebar with sections like "Company Settings" (which is expanded), "Business Hours", "Calendar Settings", "Public Calendars and Resources", and "Company Information" (which is selected and highlighted in yellow). The main content area is titled "Company Information" and displays the organization's profile for "Loan & Credit Approval System". It includes tabs for "User Licenses", "Permission Set Licenses", "Feature Licenses", and "Usage-based Entitlements". The "Organization Detail" section contains the following data:

Organization Name	Phone
Primary Contact	OrgFarm EPIC
Division	Default Locale
Address	English (United States)
Fiscal Year Starts In	Default Language
January	English
Activate Multiple Currencies	Default Time Zone
<input type="checkbox"/>	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)
Enable Data Translation	Currency Locale
<input type="checkbox"/>	English (United States) - USD
Newsletter	Used Data Space
<input checked="" type="checkbox"/>	342 KB (7%) [View]
Admin Newsletter	Used File Space
<input checked="" type="checkbox"/>	17 KB (0%) [View]
	API Requests, Last 24 Hours
	39 (15,000 max)

At the bottom left of the main content area, there's a message: "Didn't find what you're looking for? Try using Global Search."

3. Business Hours & Holidays:

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

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

Page Header: Search Setup, Home, Object Manager

Left Sidebar (Company Settings):

- Business Hours
- Calendar Settings
- Public Calendars and Resources
- Holidays** (selected)
- Language Settings
- My Domain

Help Text: Didn't find what you're looking for? Try using Global Search.

Content Area:

Section Header: SETUP Business Hours

Section Header: Organization Business Hours

Help Text: Help for this Page ?

Action Bar: 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**

Table: New Business Hours

Action	Business Hours Name	Active	Time Zone	Default
Edit	Bank Working Hours	<input type="checkbox"/>	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)	<input type="checkbox"/>
Edit	Default	<input checked="" type="checkbox"/>	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)	<input checked="" type="checkbox"/>

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**

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

Page Header: Search Setup, Home, Object Manager

Left Sidebar (Company Settings):

- Business Hours
- Calendar Settings
- Public Calendars and Resources
- Holidays** (selected)
- Language Settings
- My Domain

Help Text: Didn't find what you're looking for? Try using Global Search.

Content Area:

Section Header: SETUP Holidays

Section Header: Holidays

Help Text: Help for this Page ?

Text: Holidays are dates and times at which business hours are suspended. Business hours are the days and hours that your support team is available.

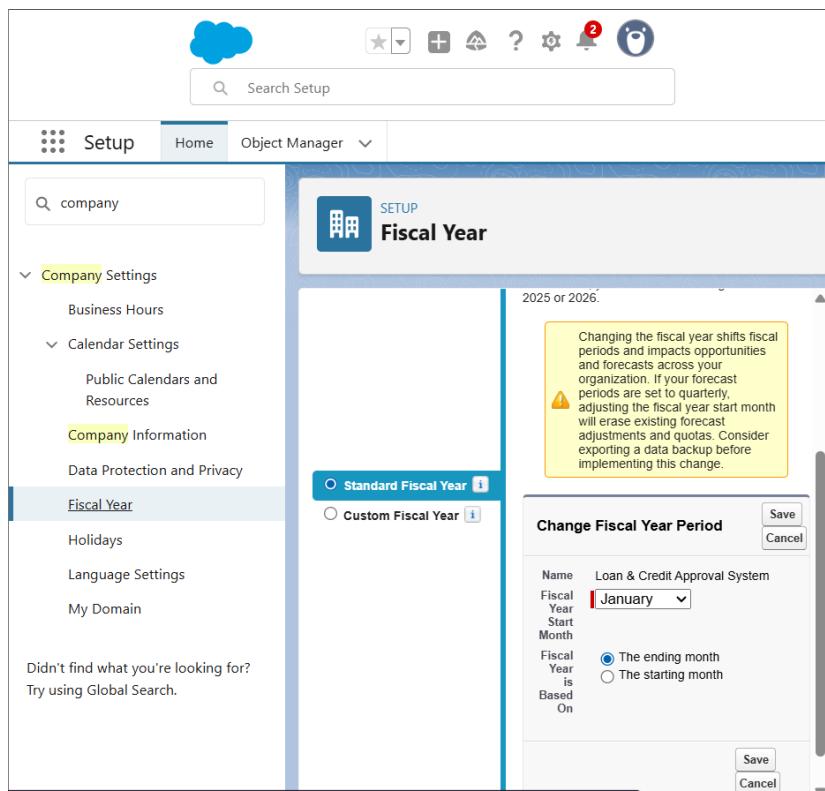
Table: Holidays

Action	Holiday Name	Description	Date and Time
Edit Del	Diwali		10/20/2025 All Day
Edit Del	Dussehra		10/2/2025 All Day

Section Header: Elapsed Holidays

No records to display

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.

The screenshot shows the Salesforce Setup interface. The left sidebar is expanded to show 'User Management Settings' under 'Users'. The main content area displays a list of users with columns for Action, Full Name, Alias, Username, Role, Active, and Profile. A search bar at the top says 'Search Setup'.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/>	Admin_Project	amr	sankishamoni2001155@agentforce.com	Admin	<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	Chatter_Editor	Chatter	chatty00000000000000000000000000000000@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/>	EPIC_OrgTeam	CEPIC	rest_acces00000000000000000000000000000000@orgteam.salesforce.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	Manager_Branch	bmanra	discrement0021409@gmail.com	Branch Manager	<input checked="" type="checkbox"/>	Branch Manager Profile
<input type="checkbox"/>	Officer_Loan	loff	discrement1609@gmail.com	Loan Officer	<input checked="" type="checkbox"/>	Loan Officer Profile
<input type="checkbox"/>	User_Integration	integ	integration00000000000000000000000000000000@agentforce.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/>	User_Security	sec	insightssecurity00000000000000000000000000000000@agentforce.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

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.
 - Admin (Custom Profile):

The screenshot shows the Salesforce Setup interface. The left sidebar is expanded to show 'Profiles' under 'Users'. The main content area displays a list of profiles with columns for Action, Profile Name, User License, and Custom. A search bar at the top says 'Search Setup'.

Action	Profile Name	User License	Custom
<input type="checkbox"/>	Admin_Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Analytics_Cloud_Integratio...	Analytics Cloud Integ...	<input type="checkbox"/>
<input type="checkbox"/>	Analytics_Cloud_Security_...	Analytics Cloud Integ...	<input type="checkbox"/>
<input type="checkbox"/>	Anypoint_Integration	Identity	<input type="checkbox"/>
<input type="checkbox"/>	Authenticated_Website	Authenticated Website	<input type="checkbox"/>
<input type="checkbox"/>	Authenticated_Website	Authenticated Website	<input type="checkbox"/>

ii. Branch Manager Profile (Custom Profile):

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

- Header:** Includes a cloud icon, a search bar labeled "Search Setup", and various navigation icons.
- Top Navigation:** Shows "Setup" as the active tab, along with "Home" and "Object Manager".
- Left Sidebar:** Under "Users", the "Profiles" tab is selected. A message says "Didn't find what you're looking for? Try using Global Search."
- Central Content:** The title is "Profiles" under "SETUP Profiles". It includes a "Help for this Page" link and a "Print" icon.
- Table:** Displays a list of profiles with columns: Action, Profile Name, User License, and Custom. One row is selected, showing "Edit | Del |..." for "Branch Manager Profile" with "External Apps Login" checked.

iii. Loan Officer Profile (Custom Profile):

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

- Header:** Includes a cloud icon, a search bar labeled "Search Setup", and various navigation icons.
- Top Navigation:** Shows "Setup" as the active tab, along with "Home" and "Object Manager".
- Left Sidebar:** Under "Users", the "Profiles" tab is selected. A message says "Didn't find what you're looking for? Try using Global Search."
- Central Content:** The title is "Profiles" under "SETUP Profiles". It includes a "Help for this Page" link and a "Print" icon.
- Table:** Displays a list of profiles with columns: Action, Profile Name, User License, and Custom. One row is selected, showing "Edit | Del |..." for "Loan Officer Profile" with "Salesforce" checked.

7. Roles:

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

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

- Header:** Includes a cloud icon, user navigation (Profile, Logout), and a search bar labeled "Search Setup".
- Navigation Bar:** Shows "Setup" as the active tab, along with "Home" and "Object Manager".
- Left Sidebar:** A sidebar titled "roles" with sections for "Users" (selected), "Feature Settings", "Sales", "Service", and "Case Teams". Under "Sales", there are links to "Contact Roles on Contracts" and "Contact Roles on Opportunities". Under "Service", there is a link to "Case Team Roles".
- Main Content Area:** Titled "Creating the Role Hierarchy" with a "Help for this Page" link. It displays a hierarchical tree of roles under "Your Organization's Role Hierarchy".
 - Root node: "Loan & Credit Approval System" (with "Add Role" option)
 - Child node: "Admin" (with "Edit | Del | Assign" options and "Add Role" option)
 - Child node: "Branch Manager" (with "Edit | Del | Assign" options and "Add Role" option)
 - Child node: "Loan Officer" (with "Edit | Del | Assign" options and "Add Role" option)
 - Child node: "CEO" (with "Edit | Del | Assign" options and "Add Role" option)
- Footer:** A message stating "Didn't find what you're looking for? Try using Global Search."

8. Permission Sets:

The screenshot shows the Salesforce Setup interface. In the top navigation bar, the 'Setup' tab is selected. A search bar contains the text 'permi'. The left sidebar has sections for 'Users' (Permission Set Groups, Permission Sets), 'Custom Code', and 'Custom Permissions'. A message at the bottom of the sidebar says ' Didn't find what you're looking for? Try using Global Search.' The main content area is titled 'Permission Sets' and displays a table of existing permission sets. The table includes columns for Action, Permission Set Name, Description, and License. One row is visible: 'Loan Approval Access' (Description) under the 'Salesforce' license.

Action	Permission Set Name	Description	License
<input type="checkbox"/> Del Clone	Loan Approval Access	Salesforce	

9. OWD:

Configured Sharing Settings:

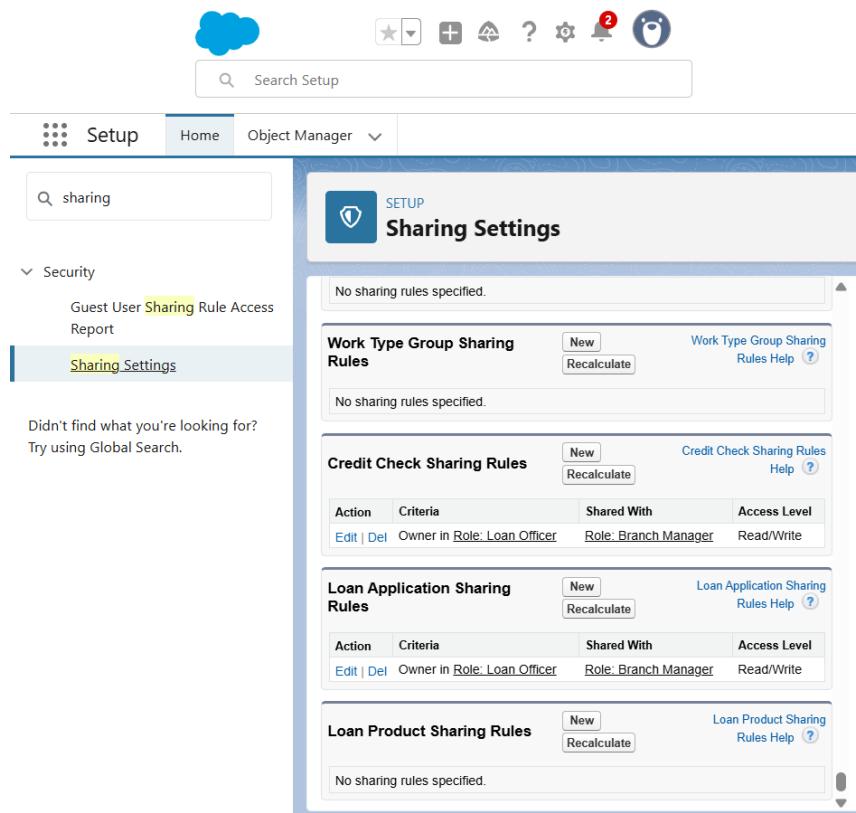
- Loan Application = Private
- Payment = Controlled by Parent (Loan Application)
- Credit Check = Private

The screenshot shows the Salesforce Setup interface with the 'Sharing' search term entered in the global search bar. The 'Sharing Settings' section is selected under the 'Security' category. A table lists the sharing settings for various objects:

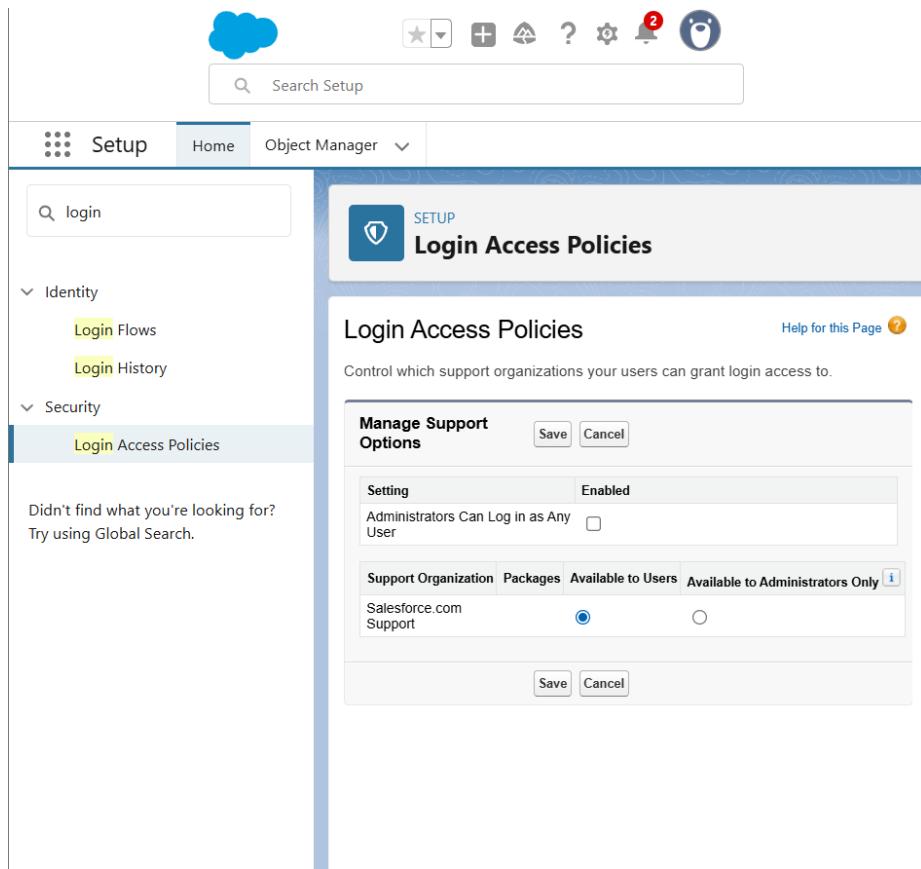
Object	Work Type	Sharing Rule	Controlled By
Work Type	Private	Private	✓
Work Type Group	Public Read/Write	Private	✓
Credit Check	Public Read/Write	Private	✓
Loan Application	Public Read/Write	Private	✓
Loan Product	Public Read/Write	Private	✓
Payment	Controlled by Parent	Controlled by Parent	✓

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)



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.

Object Manager						
Label	API Name	Type	Description	Last Modified	Deployed	Actions
Loan Application	Loan_Application__c	Custom Object	Stores all loan applications submitted by applicants, including details of amount, tenure, status, and approvals.	9/13/2025	✓	<button>▼</button>
Loan Product	Loan_Product__c	Custom Object	Catalog of available loan products, with eligibility and limit details.	9/13/2025	✓	<button>▼</button>

Object Manager						
Label	API Name	Type	Description	Last Modified	Deployed	Actions
Credit Check	Credit_Check__c	Custom Object	Stores results of credit checks (manual or via external API) for a loan application.	9/13/2025	✓	<button>▼</button>
Credit Memo	CreditMemo	Standard Object				
Credit Memo Invoice Application	CreditMemolnApplication	Standard Object				
Credit Memo Line	CreditMemoline	Standard Object				
Web Cart Credit	WebCartCredit	Standard Object				

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:

The screenshot shows the Salesforce Object Manager interface for the 'Loan Application' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main area displays the 'Fields & Relationships' section with 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:

The screenshot shows the Salesforce Object Manager interface for the 'Loan Product' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main area displays the 'Fields & Relationships' section with 8 items, sorted by Field Label.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
Interest Rate	Interest_Rate__c	Number(5, 2)		
Last Modified By	LastModifiedBy	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:



SETUP > OBJECT MANAGER
Payment

Details	Fields & Relationships				
	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount	Amount_c	Currency(16, 2)		
Created By	Created By	CreatedById	Lookup(User)		
Due Date	Due Date	Due_Date_c	Date		
Last Modified By	Last Modified By	LastModifiedById	Lookup(User)		
Loan Application	Loan Application	Loan_Application__c	Master-Detail(Loan Application)	✓	
Paid	Paid	Paid_c	Checkbox		
Paid Date	Paid Date	Paid_Date_c	Date		
Payment Name	Payment Name	Name	Auto Number	✓	

iv. Credit Check:



SETUP > OBJECT MANAGER
Credit Check

Details	Fields & Relationships				
	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Checked Date	Checked Date	Checked_Date__c	Date/Time		
Created By	Created By	CreatedById	Lookup(User)		
Credit Check Name	Credit Check Name	Name	Auto Number	✓	
Last Modified By	Last Modified By	LastModifiedById	Lookup(User)		
Loan Application	Loan Application	Loan_Application__c	Lookup(Loan Application)	✓	
Owner	Owner	OwnerId	Lookup(User,Group)	✓	
Score	Score	Score_c	Number(3, 0)		
Source	Source	Source_c	Text(255)		

3. Record Types (Optional)

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.

The screenshot shows the Salesforce Setup interface for the 'Loan Application' object. The left sidebar has 'Page Layouts' selected under the 'Object Manager' category. The main area displays a table of page layouts:

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Branch Manager Layout	Project Admin, 9/14/2025, 7:32 AM	Project Admin, 9/14/2025, 7:34 AM
Loan Application Layout	Project Admin, 9/13/2025, 7:30 AM	Project Admin, 9/13/2025, 9:09 AM
Loan Officer Layout	Project Admin, 9/14/2025, 7:28 AM	Project Admin, 9/14/2025, 7:31 AM

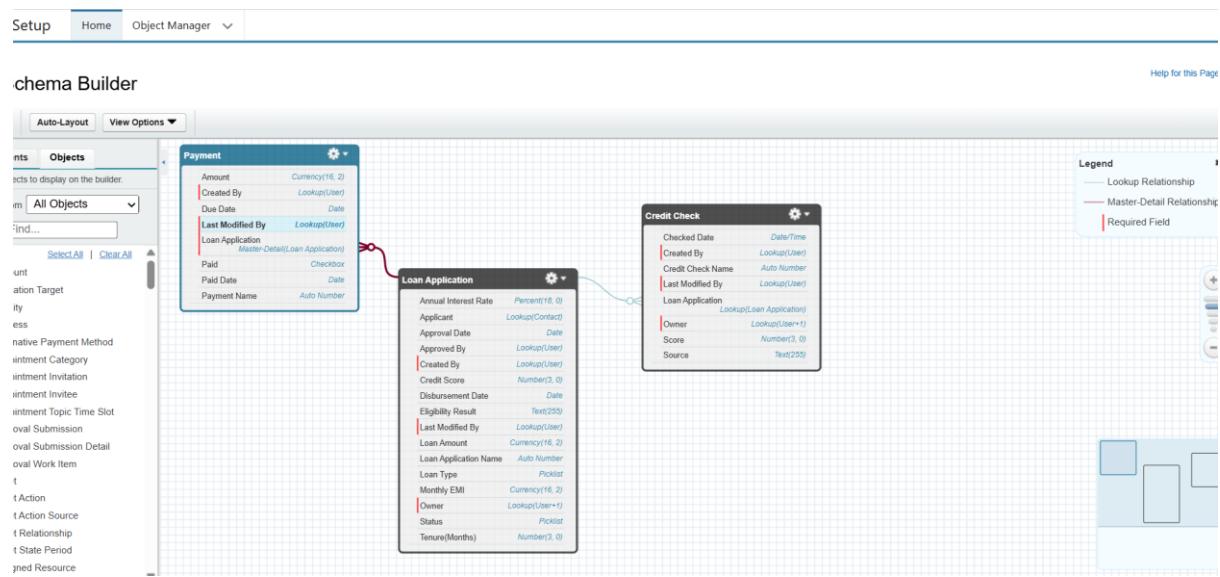
5. Compact Layouts

The screenshot shows the Salesforce Setup interface for the 'Loan Application' object. The left sidebar has 'Compact Layouts' selected under the 'Object Manager' category. The main area displays a table of compact layouts:

LABEL	API NAME	PRIMARY	MODIFIED BY	LAST MODIFIED
Loan Application Compact	Loan_Application_Compact	✓	Project Admin	9/14/2025, 7:42 AM
System Default	SYSTEM			

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 \leq 360 months.

- **Purpose:** Prevents invalid loan records from being saved

The screenshot shows the Salesforce Object Manager interface. At the top, there's a navigation bar with icons for Home, Object Manager, and a search bar labeled "Search Setup". Below this is a header bar with "SETUP" and "Object Manager". The main content area is titled "Loan Application Validation Rule". It displays a table with the following data:

Validation Rule Detail		Edit	Clone
Rule Name	Loan_Amount_Positive	Active	<input checked="" type="checkbox"/>
Error Condition Formula	Loan_Amount__c <= 0	Error Location	Loan Amount
Error Message	Loan amount must be greater than zero.		
Description			
Created By	Project Admin	Modified By	Project Admin
	Edit	Clone	

The screenshot shows the Salesforce Setup interface. At the top, there's a navigation bar with icons for Home, Object Manager, and other setup functions. Below the navigation is a search bar labeled "Search Setup". The main content area has a header "Object Manager" with a "SETUP" icon. The page title is "Loan Application Validation Rule". A "Help for this Page" link is in the top right corner. Below the title, there's a "Validation Rule Detail" section with tabs for "Edit" and "Clone". The rule details are as follows:

Rule Name	Tenure_Within_Limits	Active	
Error Condition Formula	OR(Tenure_Months__c <= 0, Tenure_Months__c > 360)	<input checked="" type="checkbox"/>	
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

At the bottom of the detail section are "Edit" and "Clone" buttons.

This screenshot shows another view of the Salesforce Setup interface for a different validation rule. The layout is identical to the first one, with a navigation bar, search bar, and "Object Manager" header. The page title is "Loan Application Validation Rule". The "Validation Rule Detail" section shows the following details:

Rule Name	Interest_Rate_Positive	Active	
Error Condition Formula	Annual_Interest_Rate__c <= 0	<input checked="" type="checkbox"/>	
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

At the bottom of the detail section are "Edit" and "Clone" buttons.

The screenshot shows the Salesforce Setup interface for the 'Loan Application' object. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main content area displays the 'Validation Rules' section, which contains three rules:

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Interest_Rate_Positive	Annual Interest Rate	Annual interest rate must be greater than 0.	✓	Project Admin, 9/19/2025, 2:44 AM
Loan_Amount_Positive	Loan Amount	Loan amount must be greater than zero.	✓	Project Admin, 9/19/2025, 12:00 AM
Tenure_Within_Limits	Tenure(Months)	Tenure must be greater than 0 and cannot exceed 360 months.	✓	Project Admin, 9/19/2025, 1:36 AM

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.

The screenshot shows the Salesforce Setup interface. The left sidebar has 'Process Automation' expanded, with 'Workflow Actions' selected. Under 'Workflow Actions', 'Workflow Rules' is highlighted. The main content area is titled 'Workflow Rules' and shows a 'Workflow Rule Detail' for 'Loan_Status_UnderReview_Notification'. The rule is active, triggered by 'Loan Application: Status EQUALS Under Review', and sends an 'Email Alert' to 'Branch Manager' when a record is created or edited. It was created by 'Project Admin' on 9/21/2025 at 8:33 PM.

Workflow Rule Detail

Rule Name	Object	Evalution Criteria
Loan_Status_UnderReview_Notification	Loan Application	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

The screenshot shows the same Salesforce Setup interface as the first one, but the 'Workflow Actions' tab is selected in the left sidebar. The main content area shows the 'Workflow Actions' section of the 'Workflow Rules' page. It lists an 'Immediate Workflow Actions' table with two rows: 'Email Alert' (Pending Approval Email Alert) and 'Field Update' (Loan Status). A note at the bottom states: 'No workflow actions have been added. Before adding a workflow action, you must have at least one time trigger defined.'

Type	Description
Email Alert	Pending Approval Email Alert
Field Update	Loan Status

No workflow actions have been added. Before adding a workflow action, you must have at least one time trigger defined.

Setup Home Object Manager

Q workflow

Process Automation

Workflow Actions

- Email Alerts
- Field Updates
- Outbound Messages
- Send Actions
- Tasks

Workflow Rules

All Workflow Rules

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.

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.

View: All Workflow Rules Create New View

Action	Rule Name	Description	Object	Active
Edit Delete	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	<input checked="" type="checkbox"/>

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

6%

Status

Under Review

Credit Score

Eligibility Result

Disbursement Date

Monthly EMI

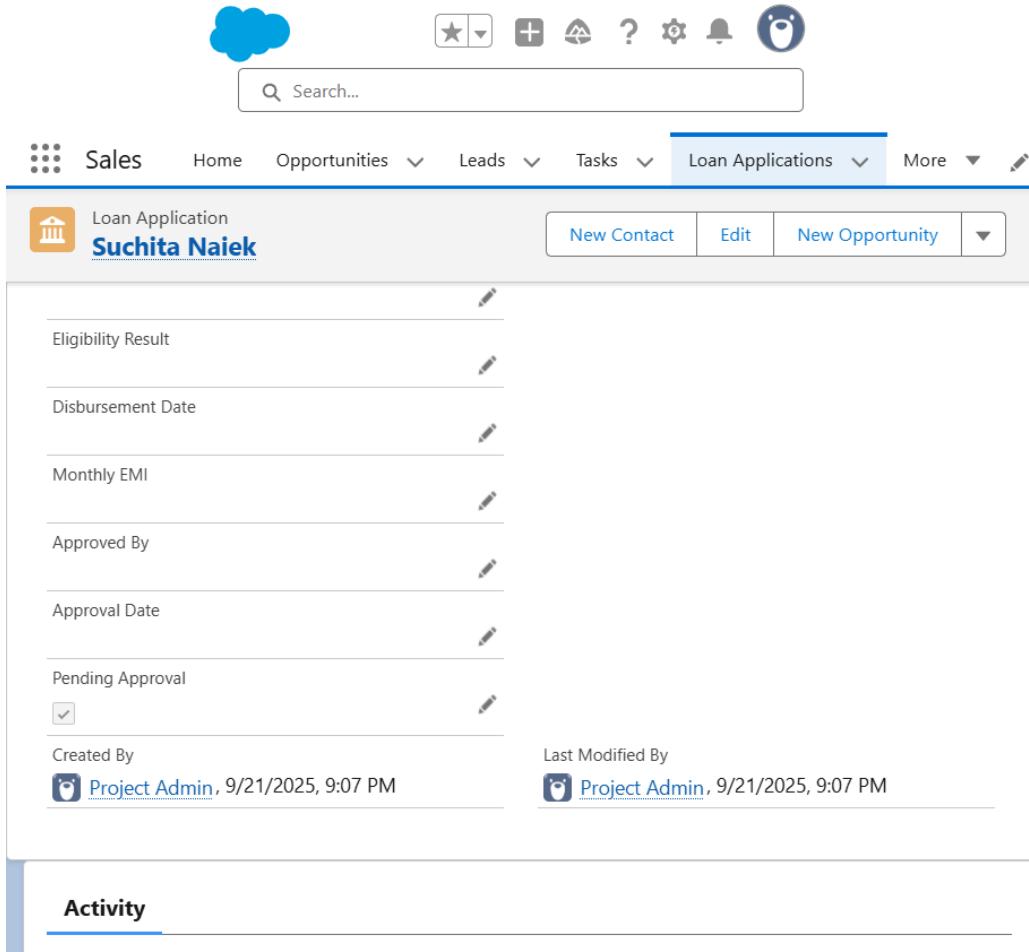
Approved By

Search People...

Approval Date

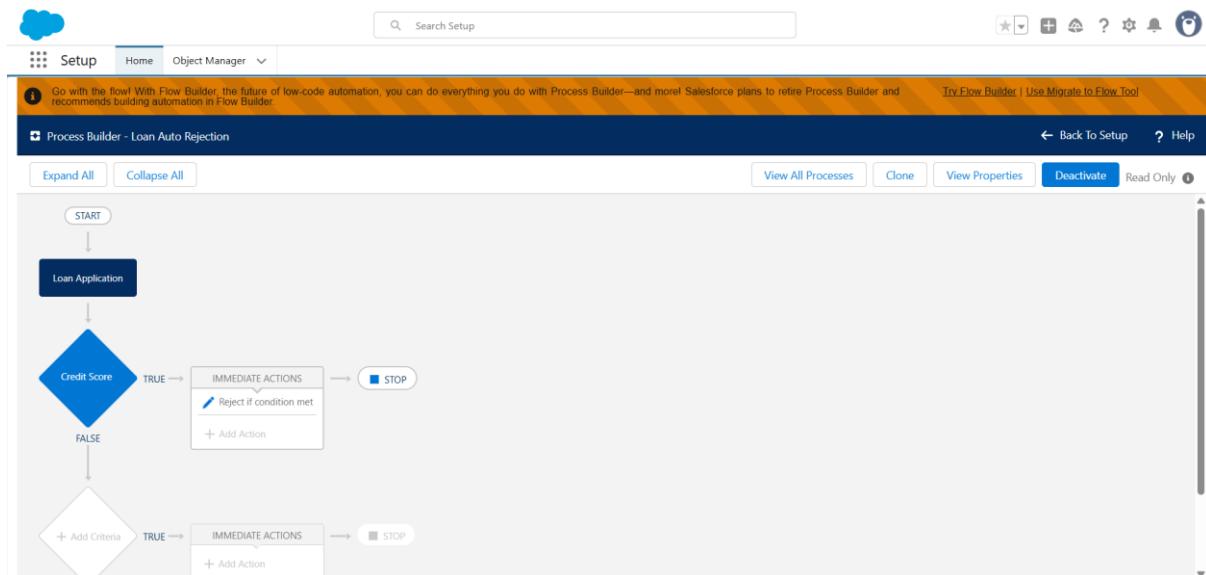
Pending Approval

Cancel Save & New Save



3. Process Builder:

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



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:	

Disbursement Date:

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

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.

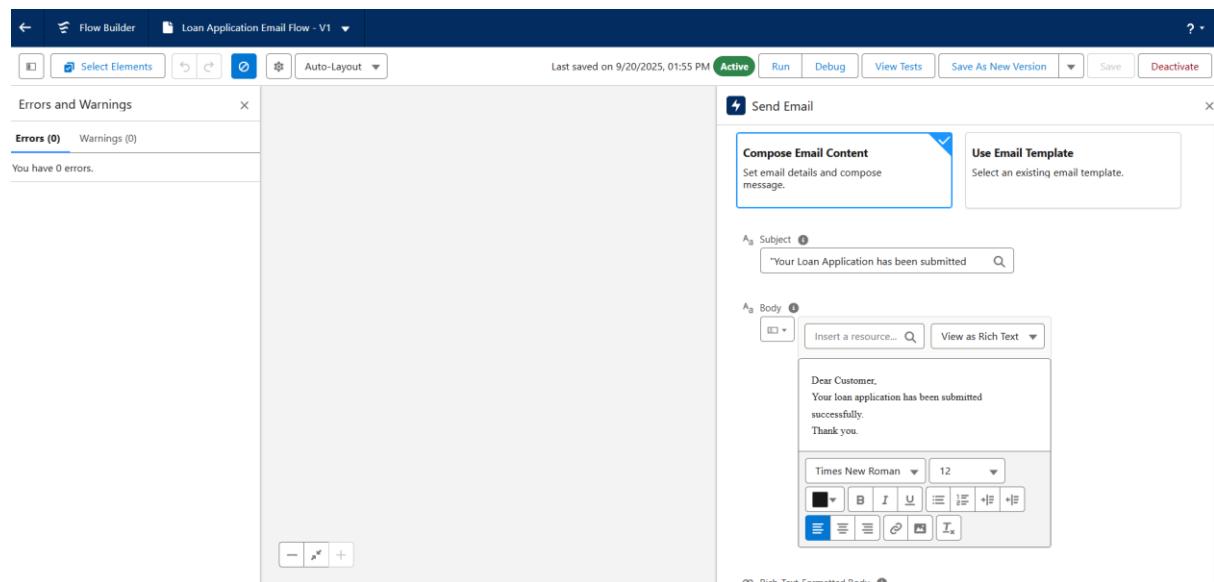
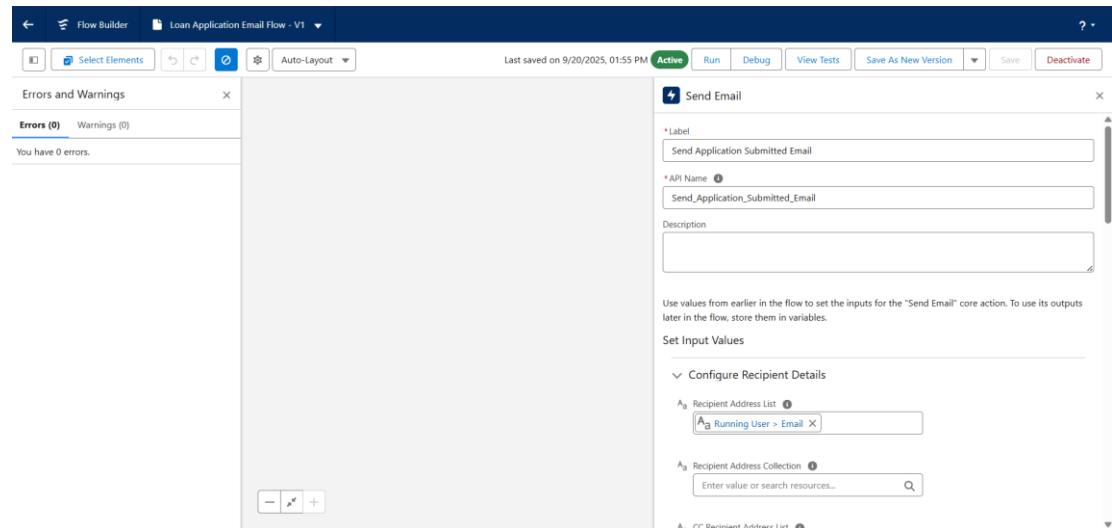
To Do List

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.



The screenshot shows the Salesforce Setup Home page. On the left, there's a sidebar with links like Setup Home, Salesforce Go, Service Setup Assistant, etc. The main area is titled "Flows" and shows a table of "Flow Definitions". The table has columns for Flow Label, Trigger, Action, Status, and Last Run. There are 61 items listed, including "Get External Storage Upload Config", "Inbound Cancel Appointment", and "Loan Application Email Flow".

Flow Label	Trigger	Action	Status	Last Run
Get External Storage Upload Config	Autol...	Salesf...	Active	9/20/...
Inbound Cancel Appointment	Salesf...	Salesf...	Active	9/20/...
Inbound Modify Appointment	Salesf...	Salesf...	Active	9/20/...
Inbound New Appointment	Salesf...	Salesf...	Active	9/20/...
Inbound New Guest Appointment	Salesf...	Salesf...	Active	9/20/...
Loan Application Email Flow	Autol...	Unma...	Active	9/20/...
Messages Routed to Agents and Qu...	Omni...	Mana...	Active	9/20/...
Modify Guest Service Appointment	Salesf...	Salesf...	Active	9/20/...
Orchestration flow for Recurrence S...	Autol...	Salesf...	Active	9/20/...
Outbound Modify Appointment	Salesf...	Salesf...	Active	9/20/...
Outbound New Appointment	Salesf...	Salesf...	Active	9/20/...
Pay for Service Appointments	Salesf...	Salesf...	Active	9/20/...

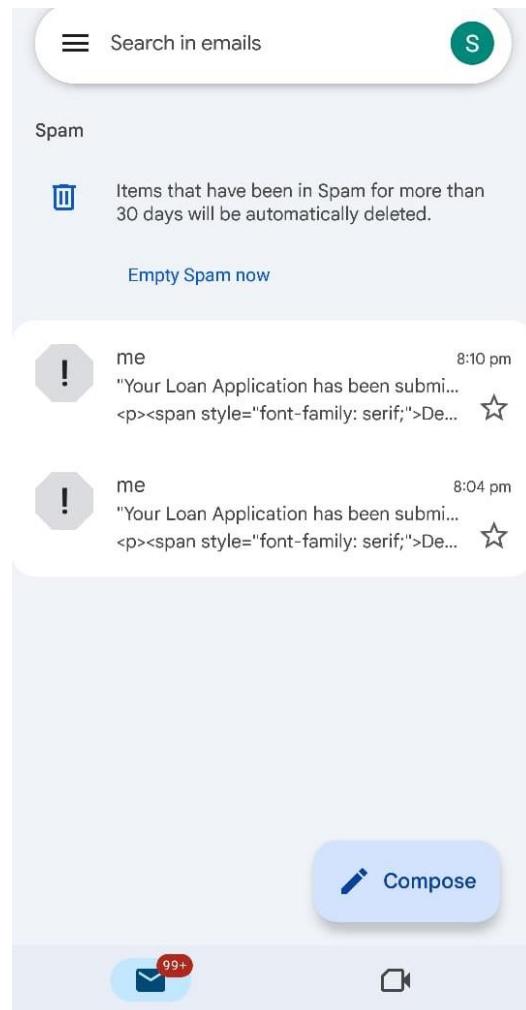
This screenshot shows the Flow Builder interface for a flow named "Loan Approval Date Flow - V1". The flow starts with a "Record-Triggered Flow" (Start) object, which triggers on "A record is created or updated" for the "Loan Application" object. It has one step: "Set Approval Date" (Update Records). The flow ends with an "End" object. The "Set Approval Date" step uses the "Set Approval Date" action and has a condition "None—Always Update Record".

```

graph TD
    Start((Record-Triggered Flow)) --> SetApprovalDate[Set Approval Date]
    SetApprovalDate --> End([End])
    
```

This screenshot shows the Salesforce Setup Home page again, focusing on the "Flows" section. The table of "Flow Definitions" shows 50+ items, including "Inbound Cancel Appointment", "Inbound Modify Appointment", and "Loan Approval Date Flow". The "Loan Approval Date Flow" row is highlighted.

Flow Label	Trigger	Action	Status	Last Run
Inbound Cancel Appointment	Salesf...	Salesf...	Active	9/20/...
Inbound Modify Appointment	Salesf...	Salesf...	Active	9/20/...
Inbound New Appointment	Salesf...	Salesf...	Active	9/20/...
Inbound New Guest Appointment	Salesf...	Salesf...	Active	9/20/...
Loan Application Email Flow	Autol...	Unma...	Active	9/20/...
Loan Approval Date Flow	Autol...	Unma...	Active	9/20/...
Messages Routed to Agents and Qu...	Omni...	Mana...	Active	9/20/...
Modify Guest Service Appointment	Salesf...	Salesf...	Active	9/20/...
Orchestration flow for Recurrence S...	Autol...	Salesf...	Active	9/20/...
Outbound Modify Appointment	Salesf...	Salesf...	Active	9/20/...
Outbound New Appointment	Salesf...	Salesf...	Active	9/20/...
Pay for Service Appointments	Salesf...	Salesf...	Active	9/20/...
Process Simple Approval	Flow ...	Mana...	Active	9/20/...



The screenshot shows a CRM application interface. At the top, there is a navigation bar with icons for Sales, Home, Opportunities, Leads, Tasks, Loan Applications, and More. Below the navigation bar is a search bar with the placeholder 'Search...'. The main area displays a 'Loan Application' record for 'Priya Patil'. The record details include:

- Annual Interest Rate: 9%
- Status: Approved
- Credit Score: 690
- Eligibility Result: Pre-Qualified
- Disbursement Date: (empty)
- Monthly EMI: (empty)
- Approved By: Branch Manager
- Approval Date: 9/22/2025
- Pending Approval: (empty)
- Created By: (empty)
- Last Modified By: (empty)

At the bottom left is a 'To Do List' button.

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.

The screenshot shows a Salesforce Loan Application form. The fields filled in are:

- 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: (empty)
- Monthly EMI: (highlighted in yellow, indicating it is calculated)

At the bottom of the form, there are buttons for Cancel, Save & New, and Save. The status bar at the bottom shows "A-0100".

The screenshot shows a Salesforce application interface. At the top, there's a navigation bar with icons for Home, Opportunities, Leads, Tasks, Loan Applications (which is currently selected), and More. Below the navigation is a search bar with placeholder text "Search...". The main content area displays a "Loan Application" record for "Shrikant Sharma". The record details include:

- 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: (empty)
- Monthly EMI: \$19,135.31

Below the form, there's a "To Do List" section.

The screenshot shows the Salesforce Developer Console. The top navigation bar includes File, Edit, Debug, Test, Workspace, Help, and tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The main area displays the code for the `EMI_Calculation.apxc` class:

```

1 public class EMI_Calculation {
2     public static Decimal calculateEMI(Decimal principal, Decimal annualRate, Integer months) {
3         if (principal == null || annualRate == null || months == null)
4             return 0;
5         Double P = principal.doubleValue();
6         Double r = (annualRate.doubleValue() / 100) / 12; // monthly rate
7         Double n = Double.valueOf(months);
8         Double pow = Math.pow(1 + r, n);
9         Double emi = (P * r * pow) / (pow - 1);
10        return Decimal.valueOf(String.valueOf(emi)).setScale(2);
11    }
12 }
13

```

Below the code, the "Logs" tab is active, showing the following log entries:

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

The screenshot shows the Salesforce IDE interface. The top navigation bar includes File, Edit, Debug, Test, Workspace, Help, and tabs for EMI_Calculation.apxc, Log executeAnonymous @9/23/2025, 12:10:06 PM, and LoanApplicationTrigger.apxt. The code editor displays the following Apex trigger:

```

1 trigger LoanApplicationTrigger on Loan_Application__c (before insert, b
2 for (Loan_Application__c la : Trigger.new) {
3     // Check required fields before calculation
4     if (la.Loan_Amount__c != null && la.Annual_Interest_Rate__c != null) {
5         la.Monthly_EMI__c = EMI_Calculation.calculateEMI(
6             la.Loan_Amount__c,
7             la.Annual_Interest_Rate__c,
8             Integer.valueOf(la.Tenure_Months__c)
9         );
10    }
11 }
12

```

Below the code editor is the Logs panel, which lists the following log entries:

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.

The screenshot shows the Salesforce code editor with the following code:

```
1 public with sharing class LoanRiskHandler {
2     public static void flagRiskyLoans(List<Loan_Application__c> loans){
3         for(Loan_Application__c loan : loans){
4             // Condition: risky if amount > 10L or credit score < 650
5             if((loan.Loan_Amount__c != null && loan.Loan_Amount__c > 1000000)
6                 || (loan.Credit_Score__c != null && loan.Credit_Score__c < 650)){
7
8                 // Append "Risky Loan" to existing Eligibility_Result__c
9                 if(String.isBlank(loan.Eligibility_Result__c)){
10                     loan.Eligibility_Result__c = 'Risky Loan';
11                 } else if(!loan.Eligibility_Result__c.contains('Risky Loan')){
12                     loan.Eligibility_Result__c = loan.Eligibility_Result__c + ' / Risky Loan';
13                 }
14             }
15         }
16     }
17 }
```

The screenshot shows the Salesforce code editor with the following trigger definition:

```
1 trigger LoanRiskTrigger on Loan_Application__c (before insert, before update)
2     LoanRiskHandler.flagRiskyLoans(Trigger.new);
3 }
```

Applicant

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

Monthly EMI

Cancel Save & New Save

A-0015

To Do List

This screenshot shows a loan application form in a software application. The form is titled 'Applicant' and contains fields for the applicant's name (Kishor Gupta), loan amount (\$2,500,000.00), loan type (Personal), tenure (36 months), annual interest rate, status (Under Review), credit score (649), and eligibility result (Risky Loan). There are also fields for disbursement date and monthly EMI. At the bottom of the form are buttons for 'Cancel', 'Save & New', and 'Save'. To the right of the form is a sidebar with a list of tasks or actions.

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

This screenshot shows a loan application record in a software application. The record is titled 'Loan Application' and belongs to 'Kishor Gupta'. It contains fields for annual interest rate, status (Under Review), credit score (649), eligibility result (Risky Loan), disbursement date, monthly EMI, approval by, approval date, and pending approval. The record was created by 'Project Admin' on 9/23/2025 at 3:28 AM and last modified by 'Project Admin' on the same date and time. A 'To Do List' button is located at the bottom of the record.

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.

The screenshot shows the 'Loan & Credit Appr...' application's interface. At the top, there are navigation tabs: Dashboards, Accounts, Contacts, Loan Applications, Payments, Credit Checks, Loan Products, and Reports. Below the tabs, a search bar says 'Search...'. On the right side of the header, there are icons for star, plus, cloud, question mark, bell, and a profile picture.

The main content area is titled 'Accounts' and 'Recently Viewed'. It displays a list of 9 items, each with a checkbox, account name, account site, phone number, and account owner alias. The list includes:

	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		(971) 037-2839	sam
9	Shanti			sam

The screenshot shows the Salesforce Setup interface. The top navigation bar includes a cloud icon, a search bar labeled 'Search Setup', and various setup icons: star, plus, cloud, question mark, gear, bell, and a profile picture.

The main content area is titled 'Setup' and shows the 'Tabs' page. A sidebar on the left has a search bar and sections for 'User Interface' (Rename Tabs and Labels, Tabs), 'Custom Tabs', and 'Web Tabs'. The 'Custom Tabs' section contains a sub-section for 'Custom Object Tabs' with a table and a 'Web Tabs' section below it.

Custom Object Tabs

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

No Web Tabs have been defined

The screenshot shows the Lightning App Builder interface with the following details:

- Header:** Lightning App Builder, Pages, Loan Application Record Page.
- Toolbar:** Desktop, Shrink To View, Save.
- Components & Fields:** Components, Fields, search bar, filter icon.
- Standard (3) Components:**
 - Record Detail
 - Record Detail - Mobile
 - Related Record
- Custom (0) Components:**
- Custom - Managed (0) Components:**
- Page Content:** Displays the Loan Application Record Page for Kishor Gupta. The page includes:
 - Header: Loan Application, Kishor Gupta.
 - Top navigation: New Contact, Edit, New Opportunity.
 - Card: Loan Amount (\$2,500,000), User Type (Personal), Status (Under Review), Credit Score (648), Monthly EMI.
 - Related List: Payments (0), Credit Checks (0), Approval History (0).
 - Activity: Shows a summary of activities with a button to "Get started by sending an email, scheduling a task, and more."
- Right Sidebar:** Page settings with fields:
 - Label: Loan Application Record Page
 - API Name: Loan_Application_Record_Page
 - Type: Record Page
 - Object: Loan Application
 - Template: Header and Right Sidebar
 - Description: (empty)
 - Enable page-level dynamic actions for the Salesforce mobile app: (checkbox)
- Footer:** Get more on the AppExchange.

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.

Cloud icon

Setup Home Object Manager

Search Setup

System Overview

Did you find what you're looking for? Try using Global Search.

Environments

System Overview

Schema

YOUR CUSTOM OBJECTS + YOUR CUSTOM SETTINGS	1% (maximum 400)
4	

TOTAL CUSTOM OBJECTS + TOTAL CUSTOM SETTINGS	0% (maximum 3,000)
4	

YOUR CUSTOM METADATA TYPES	0% (maximum 200)
0	

TOTAL CUSTOM METADATA TYPES	0% (maximum 350)
0	

CUSTOM METADATA TYPE USAGE	0% (0 of 10,000,000 characters)
0%	

DATA STORAGE	8% (maximum 5.0 MB)
458 KB (Approx.)	

API Usage

API REQUESTS, LAST 24 HOURS	0% (maximum 15,000)
0	

Business Logic

User Interface

This screenshot shows the System Overview page in Salesforce Setup. It displays various system metrics under the Schema and API Usage sections. The Schema section includes counts for custom objects, total custom objects, custom metadata types, total custom metadata types, and custom metadata type usage. The API Usage section shows API requests over the last 24 hours. Below these, there are tabs for Business Logic and User Interface.

Cloud icon

Setup Home Object Manager

Search Setup

System Overview

Did you find what you're looking for? Try using Global Search.

Environments

System Overview

Business Logic

RULES	0% (maximum 2,000)
5	

APEX TRIGGERS	0% (maximum 1)
2	

APEX CLASSES	0% (maximum 10)
5	

CODE USED	0% (2,761 of 6,000,000 characters)
0.05%	

User Interface

CUSTOM APP	10% (maximum 10)
1	

ACTIVE SALESFORCE SITES	0% (maximum 1)
0	

ACTIVE FLOWS	0% (maximum 2,000)
3	

CUSTOM TABS	4% (maximum 100)
4	

VISUALFORCE PAGES	0% (maximum 100)
0	

Most Used Licenses

Show All

ANALYTICS CLOUD INTEGRATION USER
2

This screenshot shows the System Overview page in Salesforce Setup. It displays metrics for Business Logic (Rules, Apex Triggers, Apex Classes, Code Used) and User Interface (Custom Apps, Active Salesforce Sites, Active Flows, Custom Tabs, Visualforce Pages). Below these, it shows the most used licenses.

Cloud icon

Setup Home Object Manager

Search Setup

System Overview

Did you find what you're looking for? Try using Global Search.

Environments

System Overview

5

CODE USED	0% (maximum 2,000)
0.05%	

3

CUSTOM TABS	0% (maximum 100)
4	

VISUALFORCE PAGES	0% (maximum 100)
0	

Most Used Licenses

Show All

ANALYTICS CLOUD INTEGRATION USER
2

SALESFORCE
4

CHATTER FREE
1

Contact us to obtain additional Analytics Cloud Integration User user licenses.
100% (2 of 2)

Contact us to obtain additional Salesforce user licenses.
100% (4 of 4)

This screenshot shows the System Overview page in Salesforce Setup. It displays metrics for Code Used and Custom Tabs. Below these, it shows the most used licenses, including Analytics Cloud Integration User and Salesforce, with a note indicating that additional licenses are needed for both.

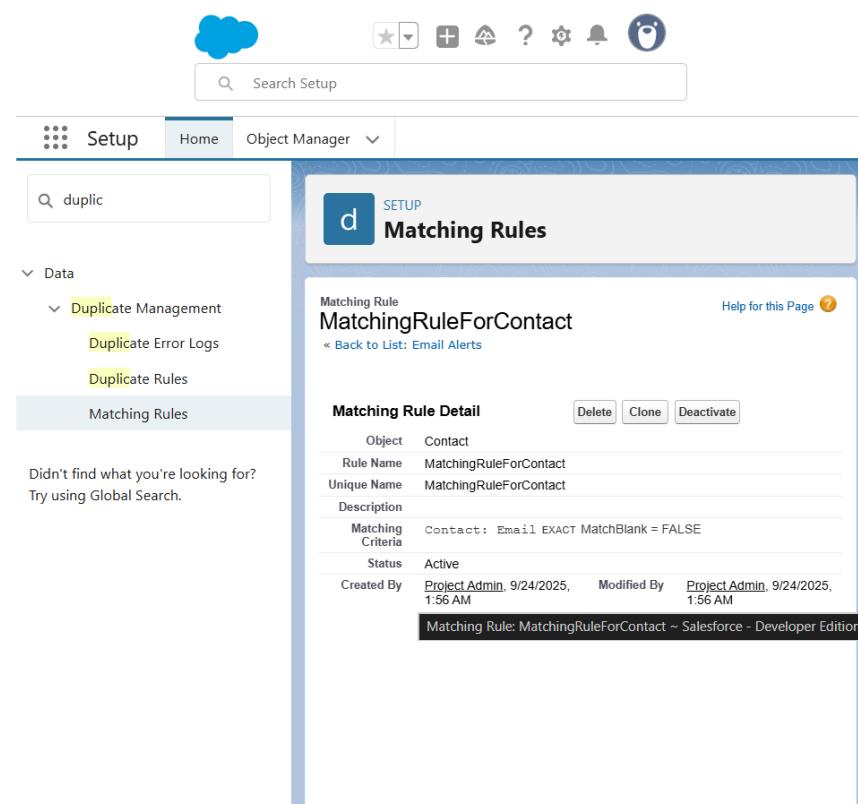
Phase-8: Integration & External Access

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.



The screenshot shows the Salesforce Setup interface. In the left sidebar, under the 'Data' category, 'Duplicate Management' is expanded, showing 'Duplicate Error Logs', 'Duplicate Rules' (which is selected and highlighted in yellow), and 'Matching Rules'. A search bar at the top left contains the query 'duplic'. The main content area is titled 'd SETUP Duplicate Rules' and displays a Contact Duplicate Rule named 'Prevent_Duplicate_Contacts'. The rule details include:

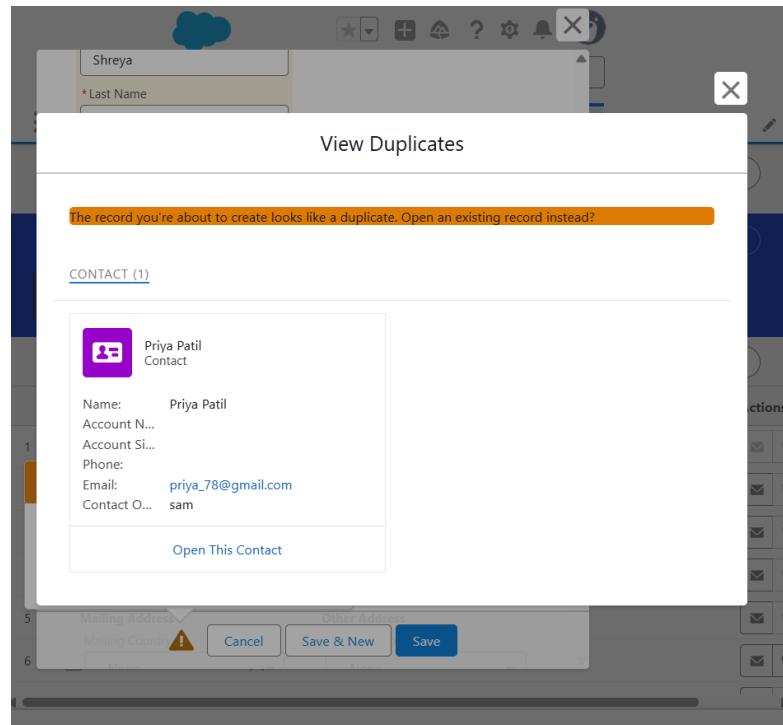
Rule Name	Prevent_Duplicate_Contacts	Order	2 of 2 [Reorder]
Description	Object: Contact Record-Level Security: Enforce sharing rules		
Action On Create	Allow	Operations On Create	<input checked="" type="checkbox"/> Alert <input checked="" type="checkbox"/> Report
Action On Edit	Allow	Operations On Edit	<input checked="" type="checkbox"/> Alert <input type="checkbox"/> Report
Alert Text	Use one of these records?		
Active	<input checked="" type="checkbox"/>		
Matching Rule	<input checked="" type="checkbox"/> MatchingRuleForContact <input checked="" type="checkbox"/> 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

Buttons at the bottom of the detail page include 'Edit', 'Delete', 'Clone', and 'Deactivate'.

The screenshot shows a contact creation dialog box. The contact information entered is:

- First Name: Shreya
- Last Name: Parekh
- Account Name: (Search Accounts...)
- Title: (Search Contacts...)
- Department: (Search Accounts...)
- Birthdate: (Search Accounts...)
- Reports To: (Search Contacts...)
- Email: priya_78@gmail.com
- Assistant: (Search Accounts...)
- Phone: (Search Accounts...)

A prominent orange warning message at the bottom left of the dialog box reads: **⚠ Similar Records Exist**. Below the message, it says: "This record looks like an existing record. Make sure to check any potential duplicate records before saving." There is a link labeled "View Duplicates". At the bottom right of the dialog are three buttons: "Cancel", "Save & New", and "Save".



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**.
-

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.

The screenshot shows the software's reporting module. The top navigation bar includes links for Dashboards, Accounts, Contacts, Loan Applications, Payments, Credit Checks, Loan Products, and Reports. The 'Reports' menu is currently active. On the left, a sidebar lists categories: Reports, Recent (5 items), Created by Me, Private Reports, Public Reports, All Reports, Folders, All Folders, Created by Me, Shared with Me, and Favorites (All Favorites). The main content area displays a table of recent reports:

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Portfolio by Loan Type	Shows overview of loan types	Loan Reports	Project Admin	9/24/2025, 9:15 AM	
Created by Me	Delinquent Payments	Shows overdue EMTs	Loan Reports	Project Admin	9/24/2025, 9:10 AM	
Private Reports	Approval Time Report	Shows time taken for approvals	Loan Reports	Project Admin	9/24/2025, 8:25 AM	
Public Reports	Loan Pipeline	Shows number of applications in each stage (Submitted → Approved → Disbursed)	Loan Reports	Project Admin	9/24/2025, 2:37 AM	
All Reports	Sample Flow Report: Screen Flows	Which flows run, what's the status of each interview, and how long do users take to complete the screens?	Public Reports	Automated Process	9/10/2025, 2:25 AM	

The screenshot shows the 'Dashboards' section of the 'Loan & Credit Appr...' application. On the left, there's a sidebar with categories: DASHBOARDS (Recent, Created by Me, Private Dashboards, All Dashboards), FOLDERS (All Folders), and FAVORITES (All Favorites). The main area lists a single dashboard:

Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Loan Management Dashboard	Provides an overview of loan applications, approvals, portfolio distribution, and overdue payments, enabling quick insights for monitoring workflows, approval efficiency, and repayment performance.	Loan Dashboards	Project Admin	9/24/2025, 9:54 AM	<input checked="" type="checkbox"/>

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.

Loan Management Dashboard
Provides an overview of loan applications, approvals, portfolio distribution, and overdue payments, enabling quick insights for monitoring workflows, approval efficiency, and repayment performance.
Last refreshed 1 day ago. Refresh this dashboard to see the latest data.

As of Sep 24, 2025, 9:54 AM Viewing as Project Admin

Loan Pipeline

Record Count: 15

Status	Count
Submitted	2
Pre-Qualified	2
Under Review	6
Approved	3
Sanctioned	1
Rejected	2

[View Report \(Loan Pipeline\)](#) As of Sep 24, 2025, 9:54 AM

Portfolio by Loan Type

Record Count

Loan Type	Count
Home	1
Car	3
Personal	9

[View Report \(Portfolio by Loan Type\)](#) As of Sep 24, 2025, 9:54 AM

Approval Time Report

Loan Application: Loan Application Name	Approval Date	Loan Application: Created Date
A-0003	9/22/2025	9/19/2025
A-0004	-	9/19/2025

[View Report \(Approval Time Report\)](#) As of Sep 24, 2025, 9:54 AM

Approval Time Report

Loan Application: Loan Application Name	Approval Date	Loan Application: Created Date
A-0003	9/22/2025	9/19/2025
A-0004	-	9/19/2025
A-0019	9/22/2025	9/21/2025

[View Report \(Approval Time Report\)](#) As of Sep 24, 2025, 9:54 AM

Delinquent Payments

Loan Application: Loan Application Name	Payment: Payment Name
A-0004	PM-0001
A-0004	PM-0002
A-0019	PM-0003

[View Report \(Delinquent Payments\)](#) As of Sep 24, 2025, 9:54 AM

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.

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).

Sharing Settings

Object	Type	Sharing Rule	Action
Work Order	Private	Private	✓
Work Plan	Private	Private	✓
Work Plan Template	Private	Private	✓
Work Step Template	Private	Private	✓
Work Type	Private	Private	✓
Work Type Group	Public Read/Write	Private	✓
Credit Check	Public Read/Write	Private	✓
Loan Application	Public Read/Write	Private	✓
Loan Product	Public Read/Write	Private	✓
Payment	Controlled by Parent	Controlled by Parent	

Other Settings

- Manager Groups: ⓘ
- Secure guest user record access: ⓘ
- Require permission to view record: ⓘ

View Setup Audit Trail

Date	User	Action	Section	Delegate User
9/24/2025, 2:00:33 AM PDT	samikshamore2004165@agentforce.com	For the Contact duplicate rule Prevent_Duplicate_Contacts, changed "Active" from "false" to "true"	Duplicate Rule	
9/24/2025, 2:00:33 AM PDT	samikshamore2004165@agentforce.com	For duplicate rule Prevent_Duplicate_Contacts, changed matching rules.	Duplicate Rule	
9/24/2025, 1:56:42 AM PDT	samikshamore2004165@agentforce.com	Created new Contact duplicate rule "Prevent_Duplicate_Contacts": Set "Record-Level Security" to "Enforce sharing rules"	Duplicate Rule	
9/24/2025, 1:56:37 AM PDT	samikshamore2004165@agentforce.com	Contact matching rule, MatchingRuleForContact, activating by Project Admin	Matching Rule	
9/24/2025, 1:56:37 AM PDT	samikshamore2004165@agentforce.com	For matching rule MatchingRuleForContact, added matching criteria where matching method is Exact, the fields is Email and match blank fields is "Does Not Match If Null"	Matching Rule	
9/24/2025, 1:56:37 AM PDT	samikshamore2004165@agentforce.com	For matching rule MatchingRuleForContact, matching engine set to Exact Match Engine	Matching Rule	
9/24/2025, 9:10:00 AM PDT	samikshamore2004165@agentforce.com	Created standard button override on Loan Applications: View (Lightning Page null)	Custom Objects	
9/23/2025, 9:09:42 AM PDT	samikshamore2004165@agentforce.com	Created Lightning Page: Loan Application Record Page	Lightning Pages	
9/23/2025, 7:41:21 AM PDT	samikshamore2004165@agentforce.com	Created Lightning Page: Loan & Credit Approval UtilityBar	Lightning Pages	
9/23/2025, 7:41:21 AM PDT	samikshamore2004165@agentforce.com	Created custom app Loan & Credit Approval	Custom Apps	

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