# PROJECT REPORT

## LEASE MANAGEMENT (Sales Force)

**COLLEGE:** **AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**[AVEV]**

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# PROJECT REPORT

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# INTRODUCTION

Salesforce is a cloud-based customer relationship management (CRM) platform that enables businesses to manage sales, marketing, and customer service activities in a single platform. It provides tools for sales teams to track leads, manage accounts, and forecast sales, as well as marketing automation and customer service capabilities. Salesforce is highly customizable and scalable, making it a popular choice for businesses of all sizes. Its features include:

- Contact and account management
- Sales forecasting and pipeline management
- Marketing automation
- Customer service and support
- Analytics and reporting
- Integration with other business applications

Salesforce is widely used across various industries, and its platform is constantly evolving with new features and innovations. Lease Management is a critical function in the real estate and property rental industry, involving the administration of lease agreements, rent payments, tenant communication, document handling, and property maintenance. Traditional lease management processes are often manual, fragmented, and prone to delays or errors.

**Salesforce**, as a robust and customizable cloud platform, offers a comprehensive solution to digitalize and automate lease management workflows. By leveraging Salesforce's CRM capabilities along with its automation, reporting, and integration tools, businesses can streamline lease lifecycle activities — from inquiry to renewal or termination.

**Key Objectives of Lease Management in Salesforce:**

- Centralize all lease data, tenant details, and property information in one place.
- Automate lease approvals, renewal reminders, and payment tracking using Flow Builder and Process Automation tools.
- Enable secure digital signing of lease agreements through integrations like DocuSign or Adobe Sign.
- Provide tenants with self-service access via Experience Cloud portals.
- Track maintenance requests and resolve service issues using Salesforce Service Cloud.
- Generate real-time reports and dashboards for lease performance, occupancy, and revenue.

**Benefits of Using Salesforce for Lease Management:**

- **Increased Efficiency:** Eliminates manual paperwork and reduces process delays.
- **Improved Accuracy:** Validations and automated workflows minimize human error.
- **Real-Time Visibility:** Dashboards and analytics provide actionable insights.
- **Enhanced User Experience:** Tenants and managers benefit from mobile-friendly, intuitive interfaces.
- **Compliance & Security:** Salesforce ensures data protection, audit trails, and regulatory compliance.

Salesforce transforms traditional lease management into a scalable, digital-first process — making it ideal for property managers, leasing agents, and real estate firms aiming for operational excellence.

# Project Overview

Objective: Develop a customized Salesforce application to manage leases, track lease agreements, and automate lease-related processes for a real estate company.

Key Features:

1. Lease Agreement Management: Store and manage lease agreements, including lease terms, rent, and security deposits.
2. Lease Tracking: Track lease start and end dates, renewal options, and notice periods.
3. Rent Management: Manage rent payments, payment schedules, and late payment fees.
4. Lease Renewal and Termination: Automate lease renewal and termination processes, including notifications and reminders.
5. Reporting and Analytics: Generate reports on lease performance, rent payments, and lease expirations.

Salesforce Features Used:

1. Custom Objects: Create custom objects for Lease Agreements, Rent Payments, and Lease Terms.
2. Workflows and Approvals: Automate lease approval and renewal processes using workflows and approvals.
3. Triggers and Validation Rules: Use triggers and validation rules to enforce data consistency and accuracy.
4. Dashboards and Reports: Create custom dashboards and reports to provide insights into lease performance and rent payments.

Benefits:

1. Improved Lease Management: Streamline lease management processes and reduce administrative burdens.
2. Enhanced Visibility: Provide real-time visibility into lease agreements, rent payments, and lease performance.
3. Increased Efficiency: Automate lease-related processes, reducing manual errors and increasing productivity.

Technical Requirements:

1. Salesforce Platform: Develop the application on the Salesforce platform, using Salesforce DX and Lightning components.
2. Data Migration: Migrate existing lease data from legacy systems to Salesforce.
3. Integration: Integrate the Lease Management System with other Salesforce applications, such as Sales Cloud and Service Cloud.

Deliverables:

1. Customized Salesforce Application: Develop a customized Salesforce application for lease management.
2. Data Migration: Migrate existing lease data to Salesforce.
3. User Training: Provide user training and documentation for the Lease Management System.

## Phase 1: Ideation Phase

# [Brainstorming]

| | |
|---|---|
| DATE | JUNE 2025 |
| TEAM ID | LTVIP2025TMID29184 |
| Project Name | Lease Management |
| Maximum Marks | 4/5 |

## Objective:

To generate initial ideas, identify user problems, and explore potential features or solutions that a Lease Management system (using a platform like Salesforce) should offer. This phase aims to lay the foundation for designing a robust and user-centric solution.

## What is Brainstorming in this Context?

Brainstorming is a creative process where stakeholders (developers, users, managers) collaborate to freely suggest and discuss ideas aimed at improving or innovating lease management processes. In this project, the goal is to solve real-world issues through a digital Lease Management System built on Salesforce.

## Key Stakeholders (Target Users):

- Tenants
- Landlords
- Property Managers
- Leasing Agents
- Admin & Finance Teams

# Steps in Brainstorming for Lease Management:

1. Define the Problem Area:
   - Fragmented lease tracking
   - Manual reminders and approvals
   - Poor communication between tenants and landlords
   - Inefficient document handling
   - Lack of centralized system for payments and maintenance tracking

2. Create a Safe Space for Ideas:
   - Foster open dialogue
   - Encourage wild ideas—quantity over quality at first
   - Avoid criticism during ideation

3. List All Ideas (Sample Suggestions):
   - Auto reminders for lease expiry and rent due
   - Secure digital document storage (agreements, ID proofs)
   - Tenant onboarding and offboarding workflows
   - Lease renewal and approval process automation
   - Rent payment tracking and digital receipts
   - Maintenance request and SLA-based ticketing system
   - Lease clause compliance monitoring
   - Notification alerts via email/SMS
   - Interactive dashboard for lease summary
   - Escalation matrix for unresolved issues

## Grouped Categories of Ideas:

| Category | Features |
|---|---|
| **Automation Features** | Auto-reminders, onboarding flows, approval processes |
| **User Communication** | Maintenance requests, alerts, escalations |
| **Document Management** | Upload and organize leases and ID documents |
| **Finance & Billing** | Rent tracking, invoice generation, digital receipts |
| **Analytics & Reporting** | Lease summary dashboards, compliance reports |

## Prioritized Ideas:

| Idea | Description | Category | Priority |
|---|---|---|---|
| **Auto-email for lease expiry** | Sends alerts 30 days before expiry | Automation | High |
| **Lease document upload** | Digital storage of lease agreements | Document Mgmt | Medium |
| **Rent payment tracker** | Logs rent transactions with receipts | Finance | High |
| **Tenant onboarding workflow** | Automated setup for new tenants | Automation | High |
| **Maintenance request module** | Service ticket system for tenants | Communication | Medium |
| **Compliance monitoring** | Alerts if lease terms are violated | Analytics | Medium |
| **Dashboard overview** | Visual summary of active/inactive leases | Analytics | Medium |

# Brainstorming Techniques Used:

- Mind Mapping: To visualize how ideas are interrelated.
- SWOT Analysis:
  - Strengths: Customizable via Salesforce, scalable.
  - Weaknesses: Initial setup complexity.
  - Opportunities: Automation, real-time alerts, centralization.
  - Threats: User adoption, data security concerns.
- Role Storming: Thinking from each stakeholder's viewpoint to identify pain points and needs.

# Brainstorming Output Deliverables:

- Categorized and prioritized feature list
- Use-case identification by stakeholder type
- Visual maps and templates for future phases (e.g., wireframes)
- Foundation for Phase 2 (Requirement Gathering)

# Ideation Phase
# [Empathize and Discover]

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## Objective:

The objective of this phase is to gain a deep understanding of the users and their problems through user research and engagement. This phase focuses on uncovering true user needs, workflows, and challenges to inform requirement gathering and system design.

## What is the Empathize Phase?

Empathizing means stepping into the users' shoes to understand their experiences, feelings, and pain points. This is done through interviews, observation, and empathy mapping to capture insights that lead to meaningful solutions.

## What is the Discover Phase?

The Discover phase involves identifying and gathering all relevant information about the user's current workflows, tools, and challenges. This includes collecting data, reviewing existing systems, and understanding the context of use.

## Key Activities in this Phase:

1. Conduct user interviews and surveys.
2. Observe users interacting with current systems.
3. Create empathy maps and journey maps.
4. Identify user roles and personas.

5. Document workflows, goals, and pain points.
6. Gather feedback on early ideas or prototypes if available.

# Deliverables of the Empathize and Discover Phase:

- Empathy Maps for key user roles (Tenant, Manager, Admin).
- User Personas with goals and challenges.
- User Journey Maps showing interaction steps.
- List of key pain points and opportunity areas.
- Insights report to inform solution design in next phases.

# Empathize and Discover Phase in Salesforce Lease Management

In the context of Salesforce, the Empathize and Discover phase takes full advantage of the platform's capabilities to observe and map user needs into configurable, scalable solutions. The goal is to bridge the gap between current fragmented practices and a unified, user-centered lease management experience.

## Salesforce-Focused Empathize Activities

- Use Experience Cloud to create pilot portals for observation of user interaction with early-stage features.

- Capture Salesforce Chatter conversations and service case histories to understand real-time user frustrations and patterns.

- Interview users across personas to identify gaps in automation, document workflows, and communication tools.

## Salesforce-Focused Discover Activities

- Review existing Salesforce org data: custom objects, fields, and automation logic to assess gaps.

- Analyze usage reports and audit logs to understand user engagement and bottlenecks.

- Document requirements as user stories aligned with Salesforce features (e.g., 'As a leasing agent, I want auto-alerts for expiring leases').

- Identify reusable Salesforce components (e.g., Flows, Lightning Components, Approval Processes).

## Tools and Techniques in the Salesforce Context

- **Empathy Maps & Journey Maps:** Created using Lucidchart, integrated into Salesforce records via attachments.

- **User Research Dashboards:** Built using Salesforce Reports to visualize user engagement, common pain points, and feature usage.

- **Feedback Capture Forms:** Created in Salesforce with automated routing to Product Teams.

## Future Design Considerations Based on User Insights

- AI tools like Salesforce Einstein can eventually predict lease churn or maintenance demand.

- Build for mobile-first interaction, as many stakeholders work in the field.

- Plan configurable workflows, as lease rules may vary across regions and property types.

# Ideation Phase

# [Problem Statements]

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This phase focuses on translating research findings and brainstorming outcomes into clearly defined problem statements. These statements guide requirement gathering and solution design in subsequent stages of the Salesforce Lease Management project.

## Problem Statement Structure

- Title
- Description
- Stakeholders Affected
- Impact
- Opportunity to Solve Using Salesforce

## Expanded Problem Statements

1. 1. Fragmented Lease Tracking

- Description: Leases are managed across disparate tools such as spreadsheets, shared drives, and emails, leading to lost data and overlooked renewals.
- Stakeholders Affected: Property Managers, Admin Team
- Impact: Missed renewals, inefficient operations, compliance issues
- Opportunity: Centralize lease data in Salesforce using custom objects and dashboards for real-time visibility.

2. 2. Manual Lease Approval Workflows

- Description: Lease renewals and approvals rely on manual email threads with no tracking or audit trail.
- Stakeholders Affected: Leasing Agents, Legal Department, Management
- Impact: Delayed lease execution, errors in approval routing
- Opportunity: Automate workflows in Salesforce using Flow and Approval Processes, enabling auditability and speed.

3. 3. Maintenance Tracking Inconsistency

- Description: Maintenance requests are handled via ad hoc phone calls and messages without proper tracking.
- Stakeholders Affected: Tenants, Maintenance Teams
- Impact: Unresolved issues, no SLA enforcement, poor tenant satisfaction
- Opportunity: Leverage Salesforce Case Management to track, assign, and report on maintenance issues with SLA metrics.

4. 4. Unstructured Document Management

- Description: Lease-related documents are stored in non-standard formats across platforms, making retrieval hard.
- Stakeholders Affected: Admins, Auditors, Legal
- Impact: Risk of non-compliance, inefficient audits
- Opportunity: Store documents in Salesforce Files with version control and link to specific lease records.

5. 5. Lack of Communication and Alerting

- Description: Stakeholders do not receive timely notifications about critical events like rent due dates, lease expirations, or document updates.
- Stakeholders Affected: Tenants, Landlords, Admin Team
- Impact: Missed deadlines, delayed actions, customer dissatisfaction
- Opportunity: Configure Salesforce notifications, email alerts, and SMS through integrations for proactive communication.

# Phase 2: Requirement Phase

## [Customer Journey Mapping]

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| **Maximum Marks** | **4/5** |

In this phase, the project focuses on gaining a deep understanding of the customer's journey in the leasing lifecycle, using Salesforce as the foundational platform for digital transformation. Requirement analysis is done through mapping key customer interactions, identifying pain points, and collecting stakeholder expectations to align business processes with technical capabilities.

## Objective

- To define clear functional and non-functional requirements based on the customer's journey.

- To create an end-to-end customer journey map for lease management.

- To bridge the gap between customer expectations and current leasing workflows.

## Customer Journey Mapping in Lease Management

### *Awareness & Inquiry Stage*

Touchpoints: Website, real estate agent, mobile app, referrals.

Needs: Property info, lease terms, pricing, eligibility.

Salesforce Use: Web-to-lead forms, lead assignment rules.

### *Application & Documentation Stage*

Touchpoints: Online portal, branches, customer care.

Needs: Easy document upload, eligibility checks.

Salesforce Use: Custom objects, document handling via Files or DocuSign.

### *Verification & Approval Stage*

Touchpoints: Emails, calls.

Needs: Fast verification, clear updates.

Salesforce Use: Approval flows, task automation.

### *Lease Agreement & Signing*

Touchpoints: Digital signing platforms.

Needs: Secure, legally compliant process.

Salesforce Use: Auto-generation, eSignature integration.

### *Onboarding & Move-in*

Touchpoints: Welcome messages, site visits.

Needs: Seamless move-in, clear instructions.

Salesforce Use: Service case creation, onboarding flows.

### *Ongoing Lease Management*

Touchpoints: Tenant portals, apps, support teams.

Needs: Rent payments, issue reporting.

Salesforce Use: Experience Cloud, Service Cloud, payment integration.

### *Renewal or Termination*

Touchpoints: Emails, apps, agents.

Needs: Transparent process, reminders.

Salesforce Use: Notifications, renewal workflows, analytics.

## Requirement Gathering Activities

Stakeholders: Leasing, finance, legal, IT, tenants.

Methods: Interviews, workshops, observation.

Deliverables:

- Functional Requirements: Tracking, automation, reporting.

- Non-Functional: Security, UX, scalability.

- Compliance: GDPR, lease law, digital signature legality.

## Pain Points Identified

- Delays from manual processes.

- Lack of visibility into lease lifecycle.

- Inconsistent communication.

- Limited analytical insights.

## Salesforce Capabilities Aligned

| Requirement | Salesforce Feature |
| --- | --- |

| | |
|---|---|
| **Lead capture** | Web-to-Lead, OmniStudio |
| **Workflow automation** | Flow Builder, Process Builder |
| **Document handling** | Salesforce Files, DocuSign |
| **Customer communication** | Service Cloud, Experience Cloud |
| **Analytics & reporting** | Dashboards, Einstein Analytics |

## Conclusion

This requirement phase builds the foundation for solution design by centering the leasing process around real customer experiences. The insights from this journey map directly shape the architecture and priorities for the next phases in the Salesforce lease management project.

# Phase 2: Requirement Phase

# [Data Flow Diagram (DFD)]

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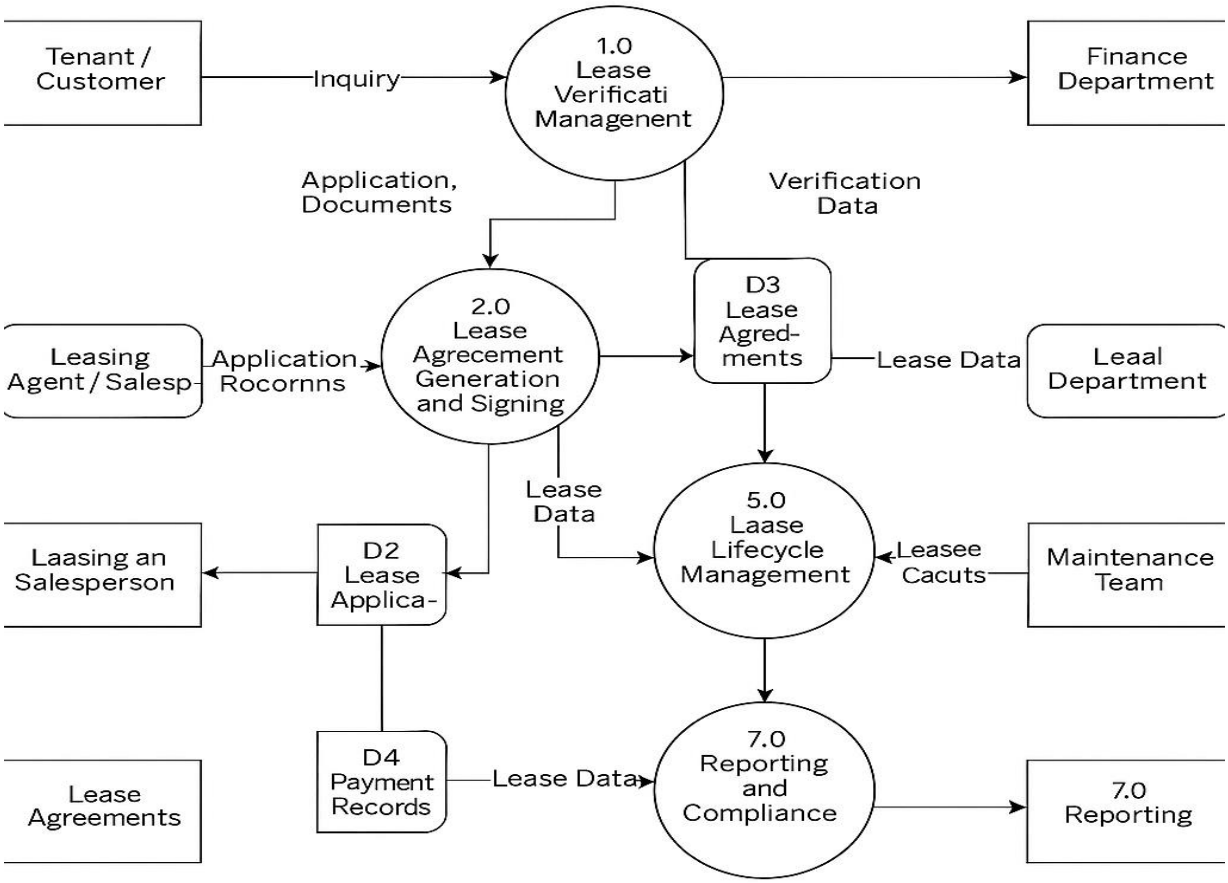
The diagram below represents a Level 1 Data Flow Diagram for a Lease Management Project in Salesforce. It includes core processes, data stores, external entities, and the flow of data between them throughout the lease lifecycle.



# Phase 2: Requirement Phase

# [Solution Requirements]

| | |
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| **Maximum Marks** | **4/5** |

To effectively develop and implement the Lease Management System within Salesforce, a comprehensive solution architecture and supporting technology stack must be identified. This ensures that the platform is scalable, secure, and user-friendly, meeting both business and tenant needs throughout the lease lifecycle.

## Functional Requirements

- Capture and manage lease inquiries and leads through Salesforce CRM.

- Automated lease application and approval workflows.

- Digital document generation and e-signature capabilities.

- Centralized dashboard for managing active leases and tenant data.

- Notifications for renewals, payments, and lease expirations.

- Integration with payment gateways for online rent collection.

- Case management for tenant support and maintenance requests.

## Non-Functional Requirements

- High availability and scalability for enterprise use.

- Strong data security, access control, and compliance (e.g., GDPR).

- Fast system performance and responsive UI.

- Customizability to adapt to changing lease workflows.

# Extended Solution Requirements and Architecture

## Extended Functional Requirements

- Multi-role access for leasing agents, finance, legal, and maintenance users.

- Audit trail for all key lease-related activities for compliance.

- Centralized calendar for lease expiry, renewal dates, and inspections.

- Integration with email/SMS services for automated communication.

- Document versioning and archival capabilities.

- Support for sub-leases, amendments, and co-tenancy cases.

## Extended Non-Functional Requirements

- Mobile-friendly design for tenant and agent access via mobile devices.

- Role-based dashboards tailored to user needs (e.g., leasing, finance).

- Seamless integration with external property management software (if required).

- Performance tuning for large datasets and multi-property handling.

- Continuous monitoring and logging using Salesforce Event Monitoring or integrated tools.

# Phase 2: Requirement Phase

## [ Technology Stack]

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| Component | Technology/Tool |
|---|---|
| Platform | Salesforce (Sales Cloud, Service Cloud, Experience Cloud) |
| Automation | Flow Builder, Apex Triggers, Process Builder |
| Data Management | Custom Objects, Salesforce Files, Shield Encryption |
| Digital Signatures | DocuSign / Adobe Sign Integration |
| Reporting & Analytics | Salesforce Reports, Dashboards, Einstein Analytics |
| Integration | Salesforce APIs, Mulesoft (if needed) |
| Frontend/UX | Lightning Web Components (LWC), Experience Cloud Portals |
| Deployment & DevOps | Salesforce DX, GitHub, CI/CD Tools |

## Extended Technology Stack Additions

| Component | Technology/Tool |
|---|---|
| **Mobile Access** | Salesforce Mobile App, Responsive Lightning Components |

| | |
|---|---|
| **Communication** | Salesforce Digital Engagement, Twilio Integration |
| **Compliance & Logging** | Salesforce Shield, Event Monitoring |
| **External Integration** | MuleSoft for integration with ERPs or property management tools |
| **User Management** | Permission Sets, Profiles, Sharing Rules |
| **Testing** | Apex Test Classes, Selenium for UI Testing |
| **Monitoring & Alerts** | Salesforce Health Check, Debug Logs, External Logging Tools |

# Phase 3: Project Design Phase

# [Problem-Solution Fit]

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|---|---|
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| Project Name | Lease Management |
| Maximum Marks | 4/5 |

## Objective

To establish a clear alignment between the identified problems in the lease management lifecycle and the proposed Salesforce-based solutions. This ensures that the technology implementation directly addresses operational pain points and business goals.

## Identified Problems in Lease Management

- Manual Inquiry Tracking – Leads are lost or delayed due to lack of centralized tracking.

- Paper-Based Applications – Delays due to physical documentation and manual verification.

- Unstructured Approval Workflows – Lease approvals vary by department and lack standardization.

- Disconnected Communication Channels – Tenants, agents, and departments operate in silos.

- Lack of Visibility in Lease Lifecycle – No real-time insights into lease stages, renewals, or expirations.

- Inefficient Rent Collection – No automated reminders or integrated payment systems.

- Limited Reporting and Audit Trail – Difficult to track performance or meet compliance needs.

## Salesforce-Based Solution Overview

| Problem | Salesforce Solution |
|---|---|
| Manual Inquiry Tracking | Web-to-Lead forms + Lead Management in Sales Cloud |

| | |
|---|---|
| Paper-Based Applications | Experience Cloud Portals for Digital Applications |
| Unstructured Workflows | Flow Builder and Process Builder for Automation |
| Disconnected Communication | Omnichannel support via Service Cloud & Email Integration |
| Lack of Lifecycle Visibility | Custom Objects and Dashboards for Real-Time Tracking |
| Inefficient Rent Collection | Integration with Payment Gateways & Scheduled Workflows |
| Limited Reporting | Einstein Analytics and Standard Salesforce |

## Solution Benefits

- Process Efficiency: Automates lease processing from inquiry to termination.

- Centralized Data: One source of truth for tenants, properties, and agreements.

- Compliance Ready: Built-in audit trails, approval history, and encryption.

- Enhanced User Experience: Portals for tenants, dashboards for agents, and notifications for all roles.

- Data-Driven Decisions: Real-time reports and AI-powered forecasting with Salesforce Einstein.

## Problem-Solution Fit Validation

To ensure problem-solution fit, the following were conducted:

- Stakeholder Workshops to map workflows and identify redundancies.

- User Interviews with tenants, leasing agents, and finance users.

- Prototype Testing of Experience Cloud portal and automation flows.

- KPI Definition: Lease approval time, rent collection success rate, and NPS scores tracked post-implementation.

## Conclusion

This phase confirms that the Salesforce-based architecture directly addresses the real operational and user challenges of traditional lease management. The problem-solution fit provides confidence that further investment in customization and deployment will drive measurable business value.

# Phase 3: Project Design Phase

## [Proposed Solution]

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## Overview

The proposed solution aims to digitize and automate the entire lease management lifecycle using Salesforce. It leverages Salesforce's Sales Cloud, Service Cloud, Experience Cloud, and platform automation capabilities to create a centralized, user-friendly, and scalable lease management system.

## Key Features of the Proposed Solution

### Centralized Lease Management System

Custom objects for lease contracts, tenants, properties, and payment schedules. Relationship mapping between tenants, lease agreements, and properties.

### Digital Application & Onboarding

Experience Cloud portals for tenants to apply online, upload documents, and track their lease status. Automated email/SMS notifications for application status, approvals, and onboarding steps.

### Automated Approval Workflows

Use of Flow Builder to automate lease approval based on custom business rules. Multi-level approval processes involving legal and finance departments.

### Lease Agreement Generation & E-signature

Integration with DocuSign or Adobe Sign to generate lease agreements directly from Salesforce templates. Secure e-signature collection and storage within the lease record.

### Payment Management & Integration

Scheduled payment reminders via email/SMS. Integration with payment gateways for online rent collection and status tracking. Logging of payment history within Salesforce.

### Maintenance and Service Management

Case management using Service Cloud for tenant complaints and maintenance requests. Automated case routing to the appropriate maintenance team with SLAs.

### Renewals, Extensions, and Terminations

Configurable workflows to handle renewals and termination notices. Notification engine to remind tenants and agents of key dates.

### Dashboards and Analytics

Custom dashboards for management to view lease performance, occupancy rates, revenue, and issue resolution times. Advanced reporting with Einstein Analytics for predictive insights (e.g., renewal likelihood, churn risk).

## Architecture Summary

| Layer | Tools & Features |
|---|---|
| UI/UX | Lightning Web Components, Experience Cloud |
| Application Logic | Flows, Apex Classes, Approval Processes |
| Data Management | Custom Objects, Salesforce Files, Record Types |
| Integrations | DocuSign, Payment Gateway API, Email/SMS Providers |
| Security & Access | Profiles, Permission Sets, Field-Level Security |
| Reporting | Dashboards, Reports, Einstein Analytics |
| Automation | Process Builder, Flow Builder, Scheduled Flows |

## Benefits of the Proposed Solution

- Improved Efficiency: Automation significantly reduces manual intervention.

- Better Visibility: Central dashboards provide real-time insights into leases.

- Tenant Satisfaction: Self-service portals and transparent workflows enhance user experience.

- Regulatory Compliance: Audit logs, encryption, and standardized workflows ensure compliance.

- Scalability: The solution supports multiple properties, lease types, and business units.

# Phase 3: Project Design Phase

# [Solution Architecture]

| | |
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## 1. Architecture Overview

The solution uses a modular, cloud-native architecture built on Salesforce's multi-cloud ecosystem. It integrates Sales Cloud, Service Cloud, Experience Cloud, Flow Builder, and custom Apex logic, along with external systems like payment gateways and e-signature platforms.

## 2. Architecture Layers

| Layer | Components | Purpose |
|---|---|---|
| Presentation Layer | Lightning App, Experience Cloud Portal, Salesforce Mobile App | Tenant, agent, and admin interfaces |
| Business Logic Layer | Apex Classes, Flow Builder, Process Builder | Workflow automation, approvals, custom logic |
| Data Layer | Salesforce Custom & Standard Objects, Files, Field-Level Security | Stores lease data, documents, user details |
| Integration Layer | Salesforce APIs, Named Credentials, MuleSoft | Connects to payment gateways, e-signature tools |
| Security Layer | Profiles, Permission Sets, Sharing Rules, Salesforce Shield | Data access control, encryption, audit |
| Analytics Layer | Reports, Dashboards, Einstein Analytics | Visual insights, forecasting, compliance monitoring |

## 3. Key Salesforce Objects (Data Model)

| Object | Purpose |
|---|---|
| Tenant (Custom) | Stores tenant personal & contact information |
| Property (Custom) | Contains details about property/unit |
| Lease Agreement (Custom) | Core record linking tenants and properties |
| Payment (Custom) | Tracks rent, due dates, and payment status |
| Service Request (Case) | For managing maintenance and support |
| Document (File) | Attachments for lease, ID proofs, etc. |

## 4. Workflow & Automation Components

- Flow Builder for lease initiation, approval, and renewal automation

- Apex Triggers for complex business logic like late fee calculations

- Scheduled Flows for rent reminders and follow-ups

- Approval Processes for legal and financial clearance

## 5. Integration Touchpoints

| System | Integration Method | Purpose |
|---|---|---|
| DocuSign/Adobe Sign | REST API, Apex SDK | E-signatures for lease agreements |
| Payment Gateway (e.g., Razorpay, Stripe) | Webhooks, REST API | Online rent payment |
| SMS/Email Services (e.g., Twilio, SendGrid) | Apex callouts | Automated notifications |
| External ERP or Property Tools | MuleSoft / Named Credentials | Sync property or finance data |

## 6. Security & Compliance

- Field-Level & Object-Level Security: Role-based data access

- Shield Platform Encryption: For sensitive documents

- Audit Trail & Event Monitoring: For compliance tracking

- Multi-Factor Authentication: For admin users and critical roles

## 7. High-Level Diagram Description

Users (tenants, agents, admin) interact via Lightning UI / Experience Cloud. Business logic (flows, Apex) operates over the object model. Data flows into and out of Salesforce through API integrations (DocuSign, Payments). Reports and dashboards provide live insights. Security is enforced at every layer.

# Phase 4: Project Planning

# [Project Planning Template]

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## 1. Objective

To define the project's roadmap, deliverables, timelines, team responsibilities, and risk management strategies, ensuring smooth implementation of the lease management system on Salesforce.

## 2. Project Scope

In Scope:

- - Custom Salesforce objects for leases, tenants, properties, payments.
- - Experience Cloud portal for tenant interaction.
- - Automation for approvals, reminders, renewals.
- - Integration with e-signature and payment systems.
- - Custom dashboards and reports.

Out of Scope:

- - Third-party property valuation tools.
- - In-person lease inspections (handled offline).
- - Legacy system migration (only if specified).

## 3. Timeline (High-Level Gantt Segments)

| Phase | Duration | Key Deliverables |
|---|---|---|
| Requirements Finalization | 1 Week | Validated User Stories, Feature List |

| | | |
|---|---|---|
| Design & Architecture | 2 Weeks | Data Model, DFD, UX Mockups |
| Development | 4 Weeks | Custom Objects, Workflows, Integrations |
| Testing | 2 Weeks | Functional, UAT, Security Testing |
| Deployment | 1 Week | Production Deployment, User Setup |
| Training & Go-Live | 1 Week | User Training, Documentation |

## 4. Resource Planning

| Role | Responsibility |
|---|---|
| Project Manager | Planning, tracking, stakeholder communication |
| Salesforce Developer | Object creation, automation, Apex coding |
| Admin/Configurator | Setup, permission sets, flows |
| QA Engineer | Testing functionality and security |
| Business Analyst | Requirement gathering, validation |
| UX Designer | Experience Cloud portal and UI design |

## 5. Risk Management Plan

| Risk | Likelihood | Impact | Mitigation Strategy |
|---|---|---|---|
| Changing Requirements | Medium | High | Weekly reviews with stakeholders |
| Integration Delays (e.g. Payments) | Medium | Medium | Parallel testing in sandbox environments |
| Data Quality from Users | High | Medium | Validations, duplicate management rules |
| User Adoption Resistance | Medium | High | Training, FAQ documents, early user feedback |

| | | | |
|---|---|---|---|
| Security Misconfigurations | Low | High | Security audit before deployment |

## 6. Communication Plan

- Weekly Review Meetings with stakeholders and tech team.

- Daily Stand-Ups during development and testing.

- Email Reports every Friday summarizing progress, blockers, and action items.

- Collaboration Tools: Jira for tracking, Slack/Teams for communication, Confluence for documentation.

## 7. Success Metrics

- Reduction in lease approval time by 50%

- 90%+ of lease applications processed digitally

- 0 major security incidents post-launch

- Positive feedback from at least 80% of tenant users (via surveys)

# 5.FUNCTIONAL AND PERFORMANCE TESTING

## [Executables Document]

Platform: Salesforce

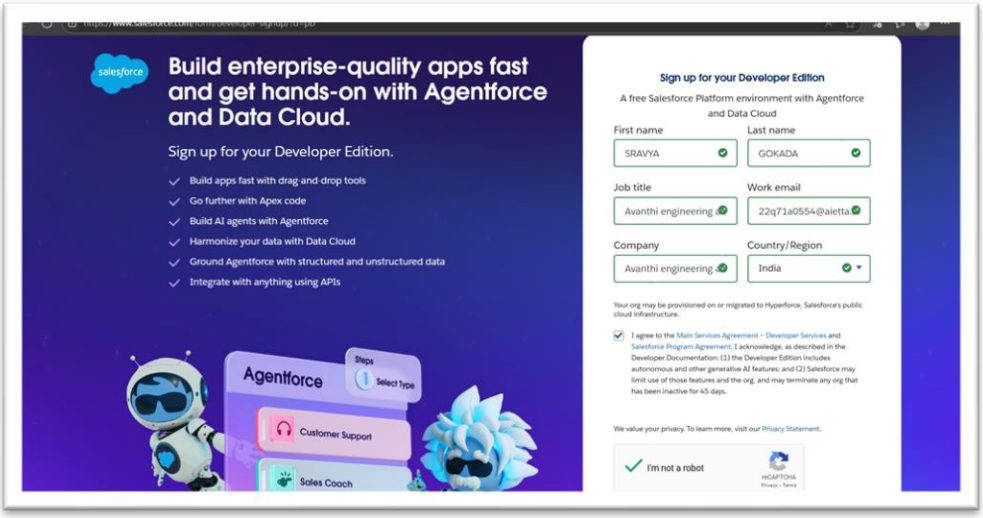
Technology Stack: Salesforce CRM, Apex, Flow Builder, Lightning App Builder, Salesforce Data Model

## 1. Project Modules/Executables Overview

| Module | Description |
|---|---|
| **Lease Creation** | Create new lease agreements for tenants |
| **Lease Renewal** | Automate lease extension and approval workflow |
| **Payment Tracking** | Track due dates, payment history, alerts |
| **Maintenance Requests** | Tenants log issues, assign to technician |
| **Document Upload** | Upload and store lease documents |
| **Dashboards/Reports** | Visualize lease status, rent collections |

## 2. Login and Navigation

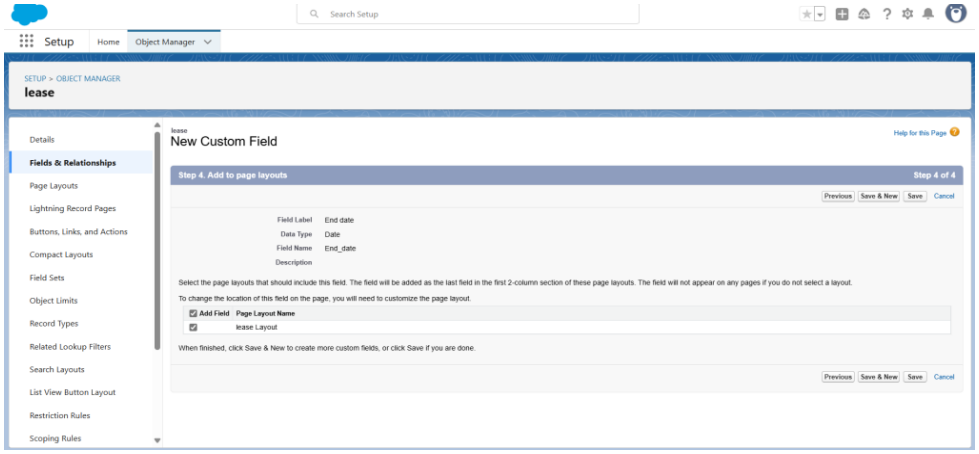
- Screenshot 1: Salesforce Login Page - Users log in using Salesforce credentials to access the Lease Management App.

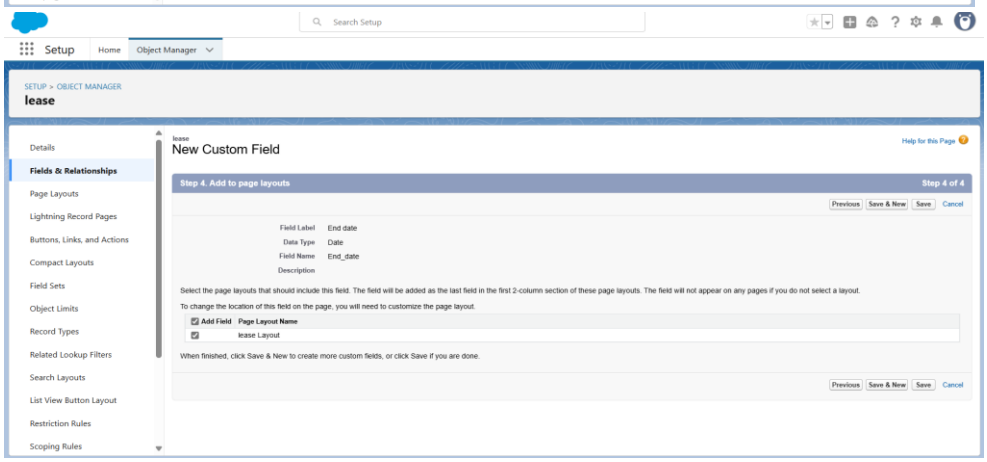


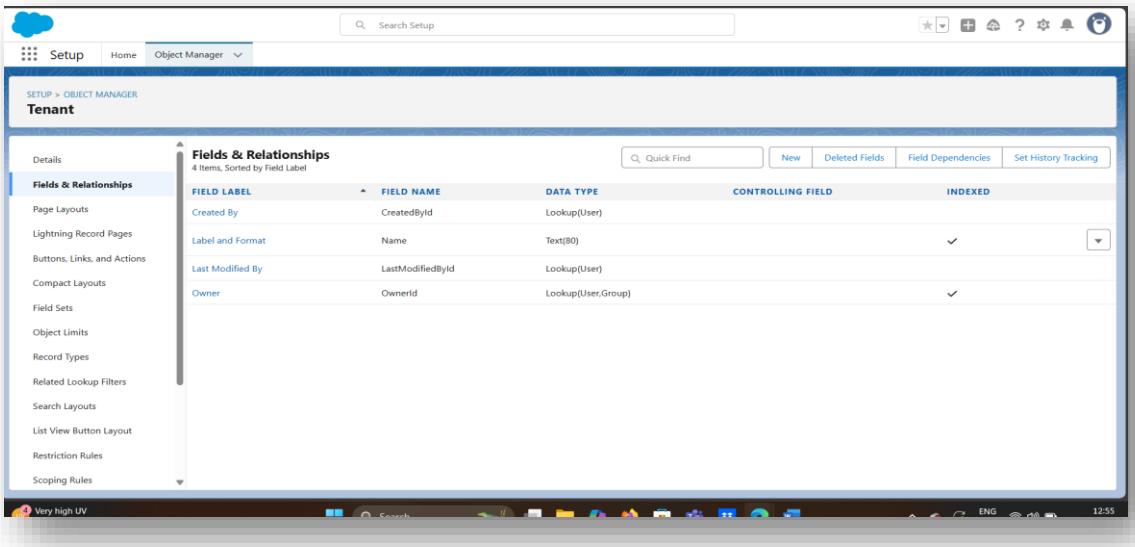

- 
- This is the screen shot of the given one.

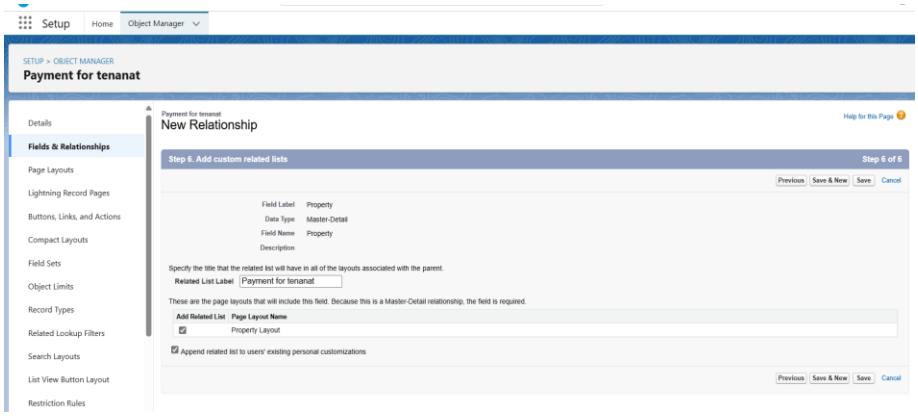
# 3. Lease Creation Flow

- Screenshot 3: New Lease Record Page - Fields: Tenant Name, Lease Start Date, Lease End Date,Property ID.

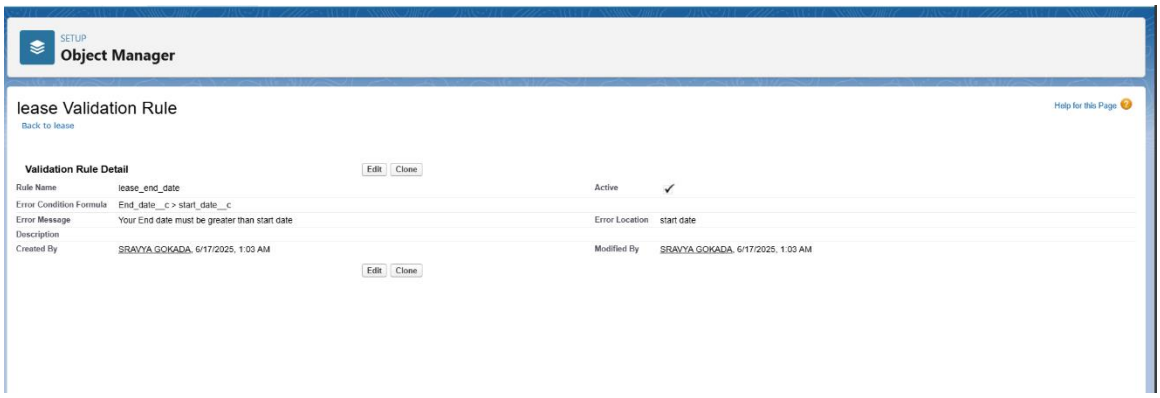


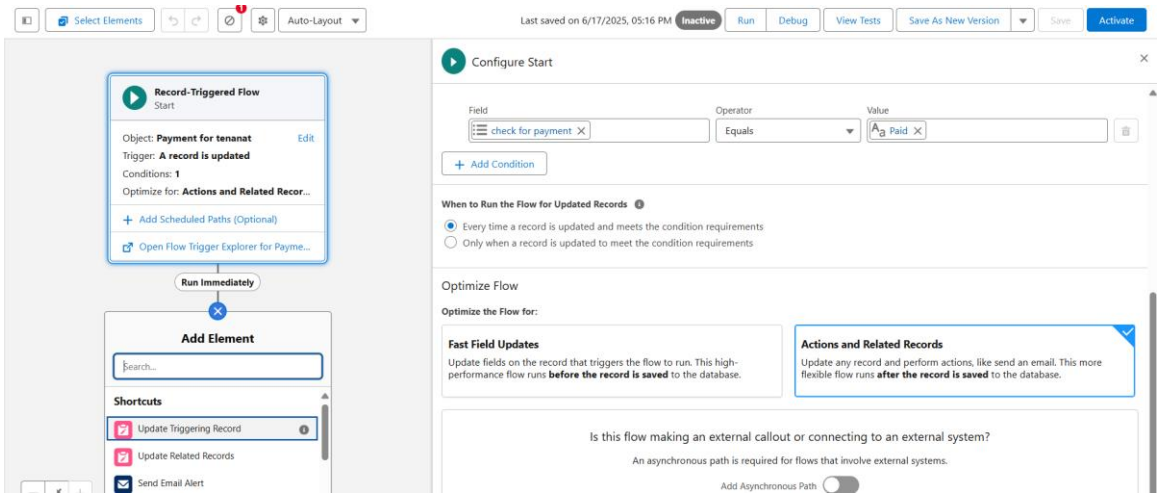



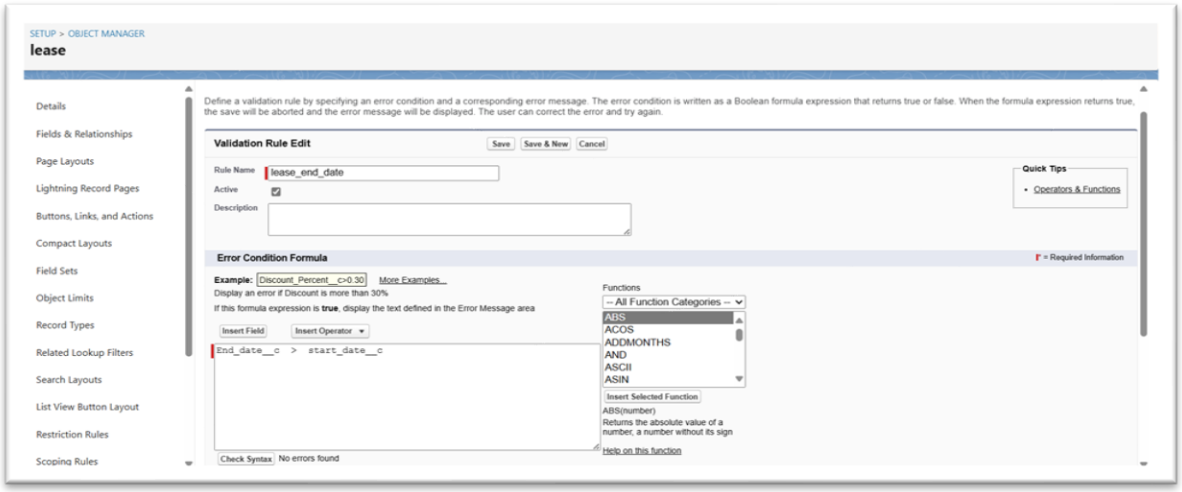






# 4. Automation: Lease Expiry Reminder

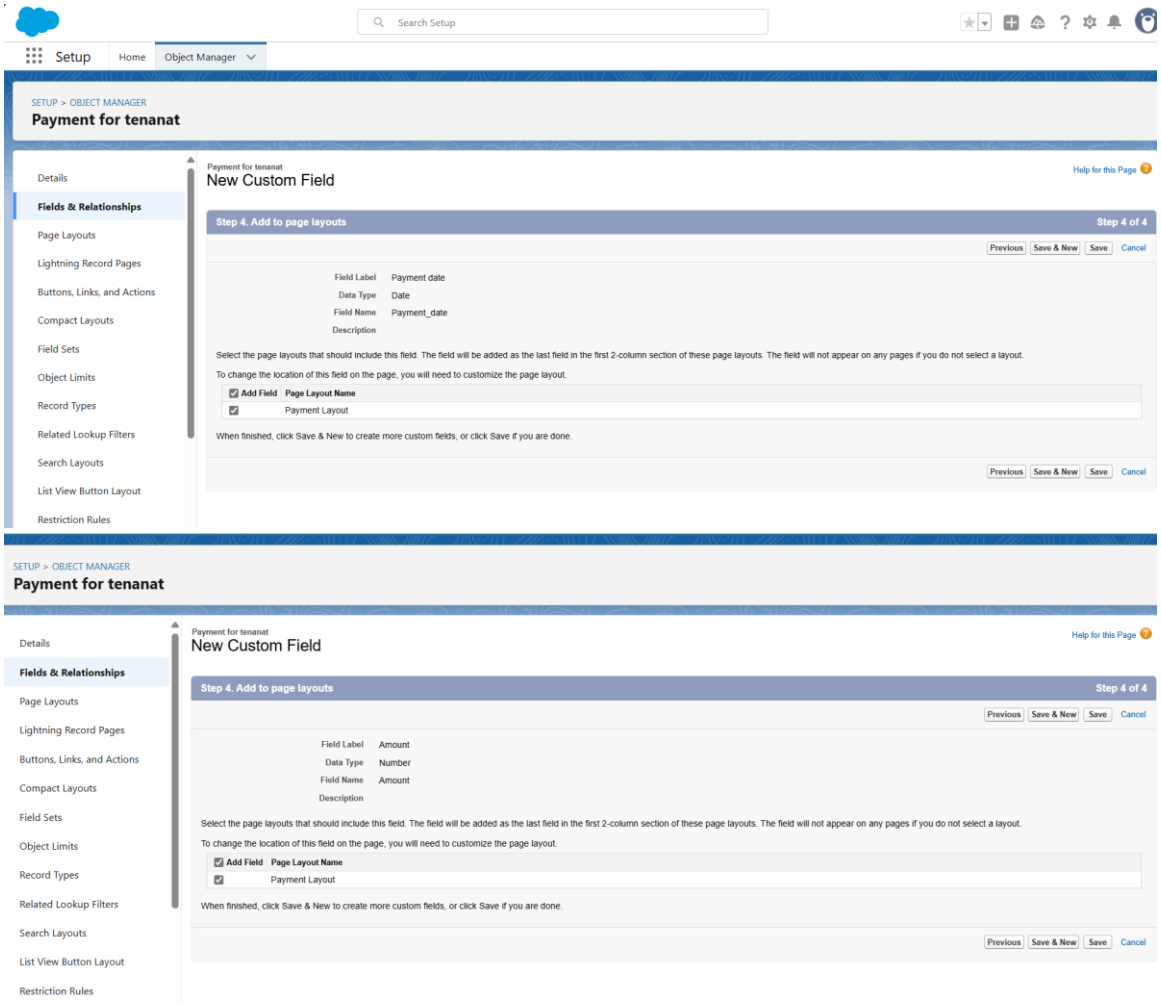
- Screenshot 4: Flow Builder – Lease Expiry Notification - Scheduled flow sends email 30 days before lease end date.
- Flow Details: Object: Lease__c, Condition: End_Date__c - >start_date__c = 30, Action: Send Email.
- 

- 

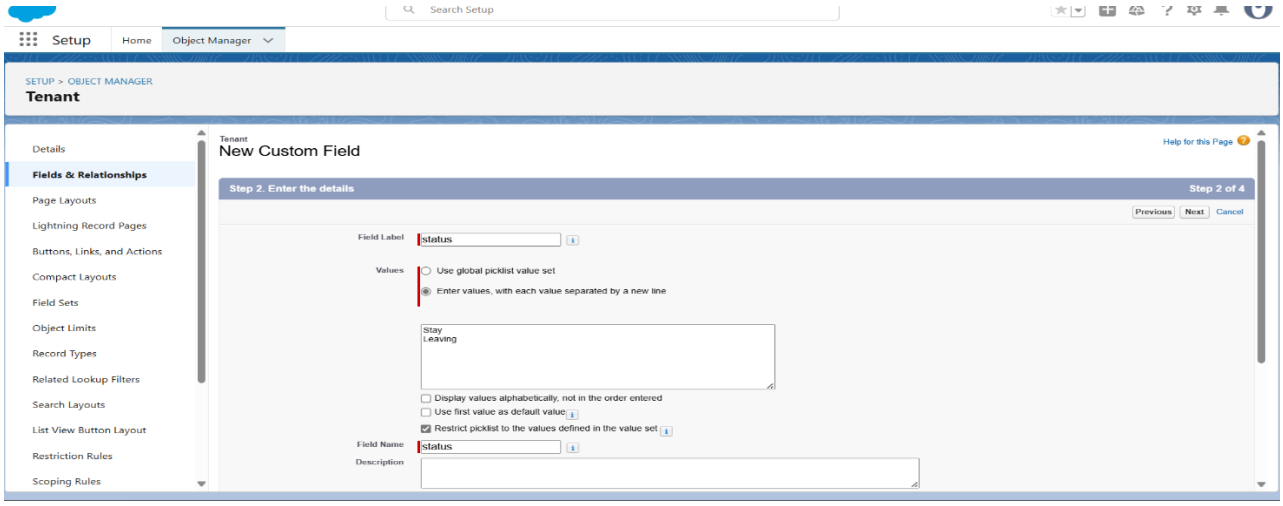
- 

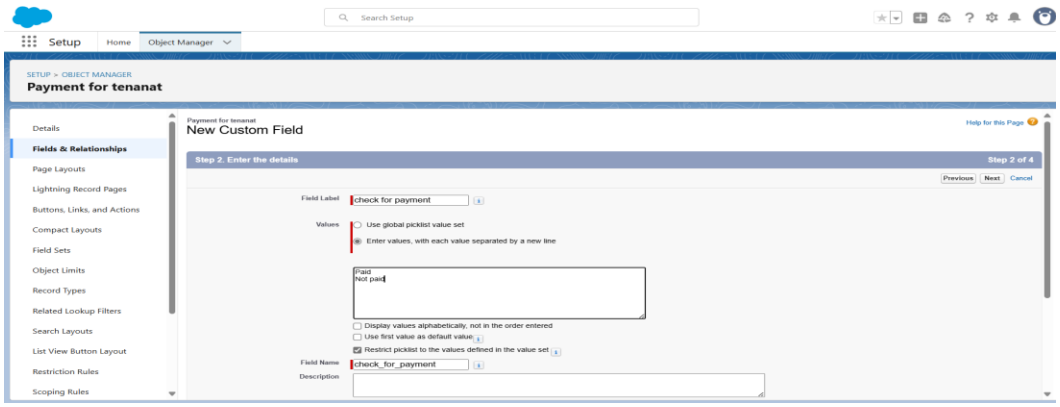

# 5. Payment Management

- Screenshot 5: New Payment Record - Amount Paid, Payment Date, Status



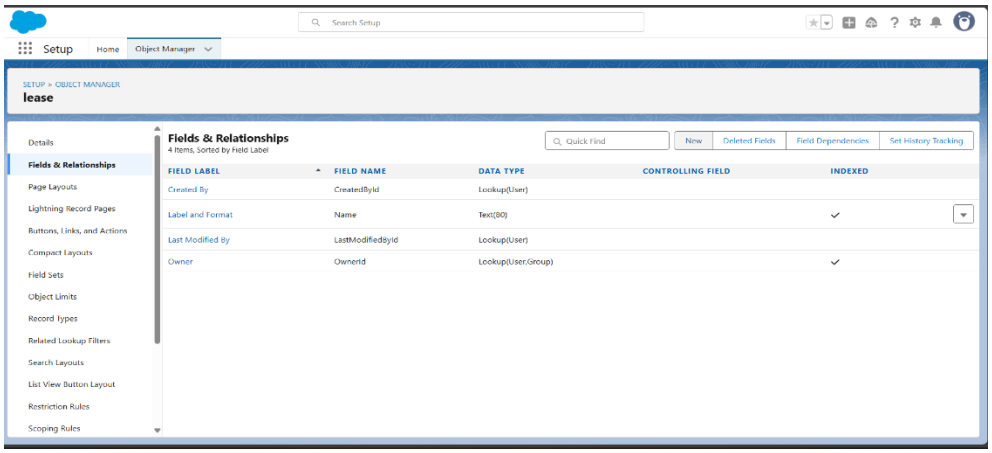

Automation: Scheduled Flow checks for overdue payments weekly, Lease__c payment status




# 6. Document Upload Feature

- Screenshot 8: Files Related List – Lease Record - Upload lease agreements, View/download from Files tab.
- Implementation: Files related list enabled on Lease__c page layout.

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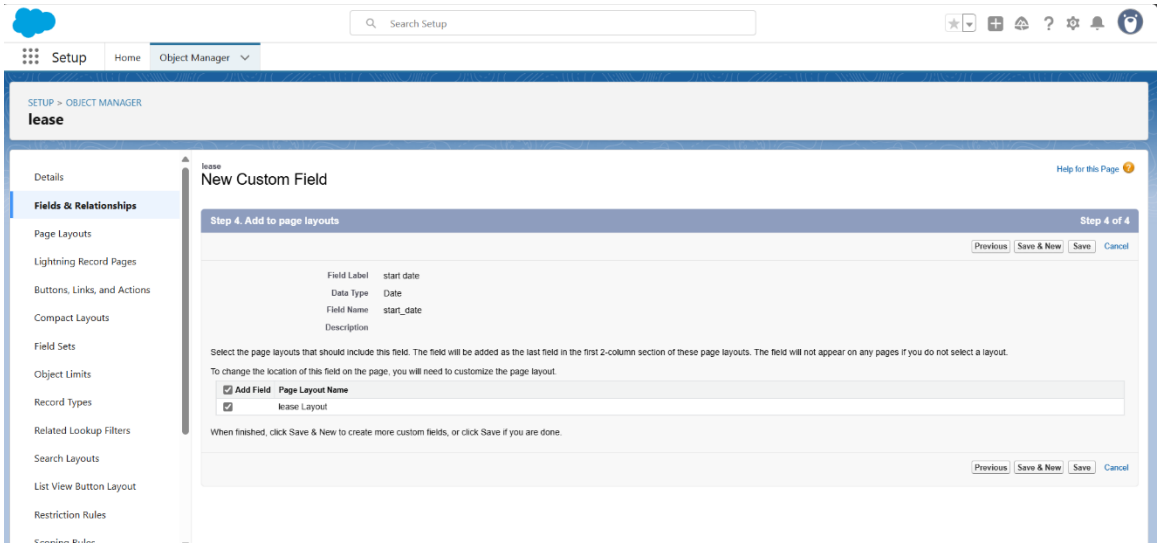
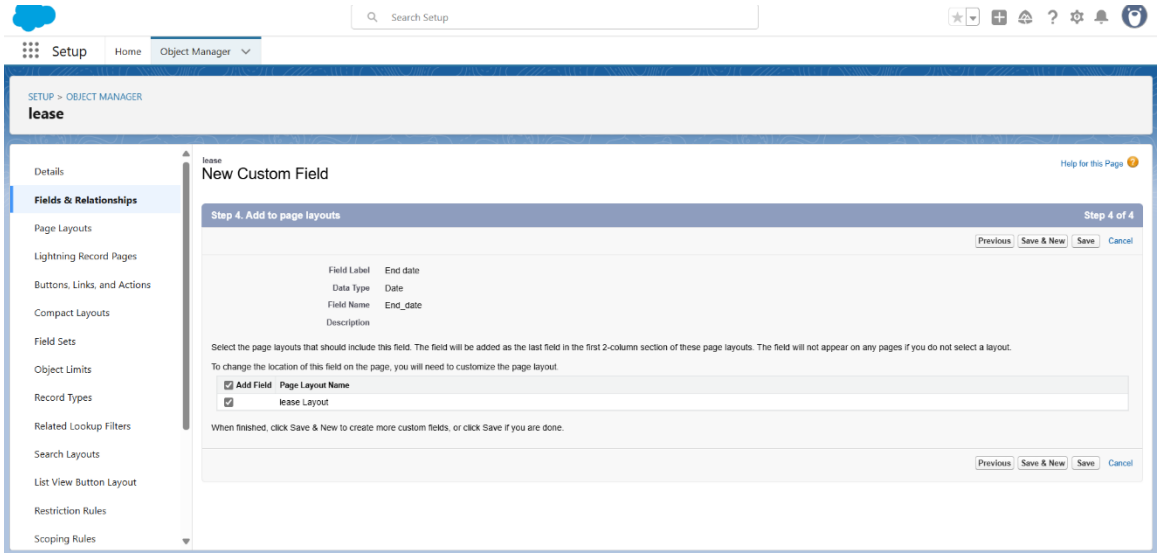
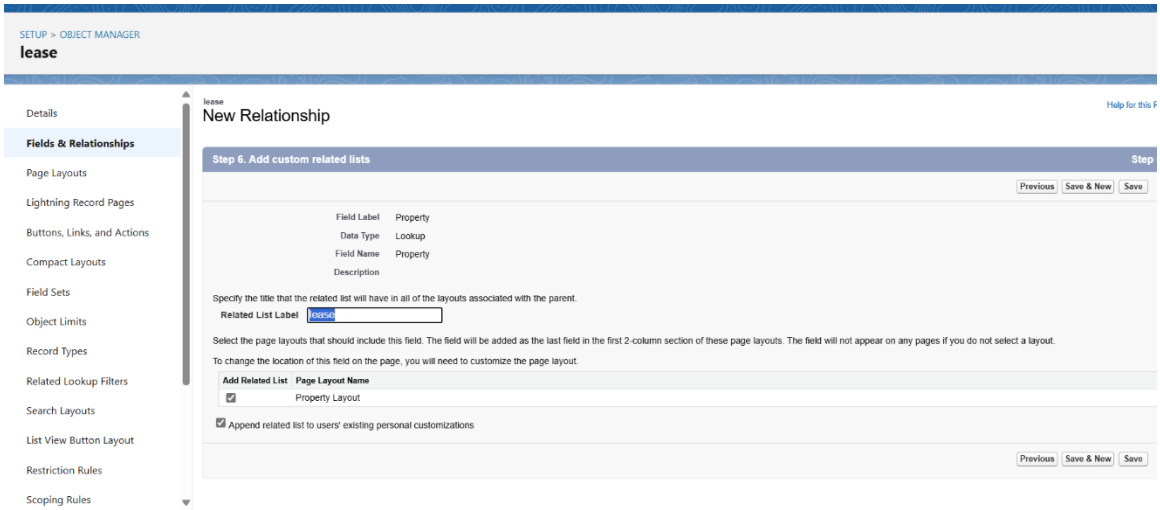
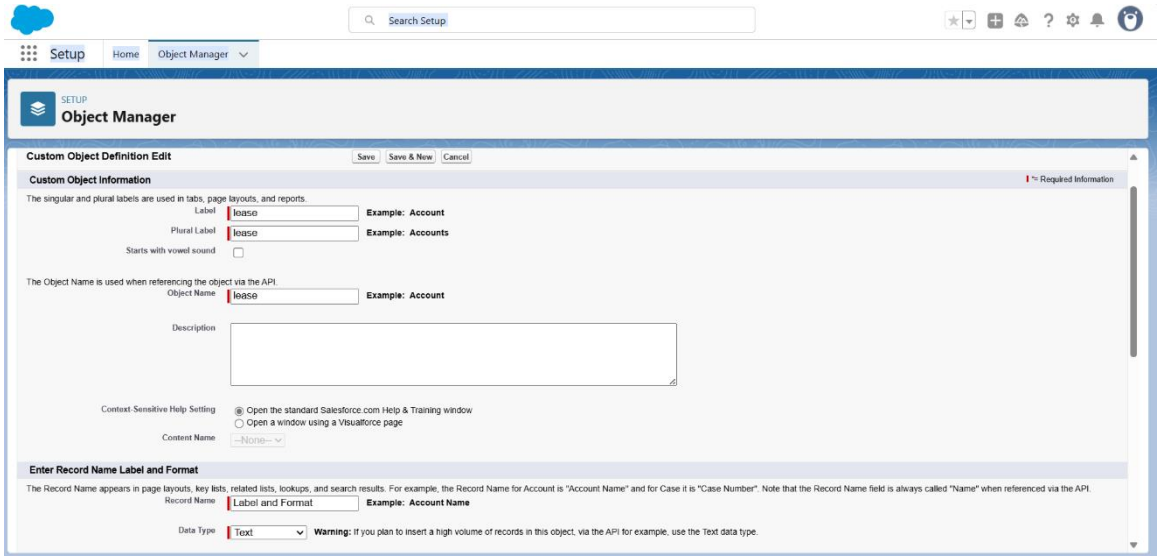

Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
lease
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
lease
New Custom Field
Help for this Page
Step 4. Add to page layouts
Step 4 of 4
Previous
Save & New
Save
Cancel
Field Label start date
Data Type Date
Field Name start_date
Description
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
To change the location of this field on the page, you will need to customize the page layout.
Add Field
Page Layout Name
lease Layout
When finished, click Save & New to create more custom fields, or click Save if you are done.

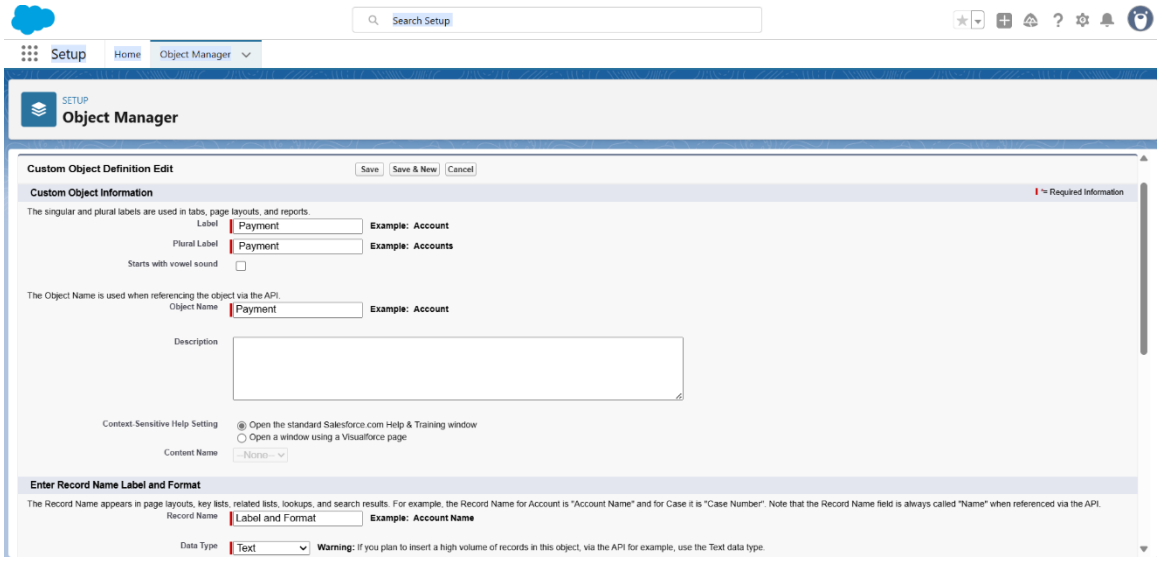

Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
lease
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
lease
New Custom Field
Help for this Page
Step 4. Add to page layouts
Step 4 of 4
Previous
Save & New
Save
Cancel
Field Label End date
Data Type Date
Field Name End_date
Description
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
To change the location of this field on the page, you will need to customize the page layout.
Add Field
Page Layout Name
lease Layout
When finished, click Save & New to create more custom fields, or click Save if you are done.

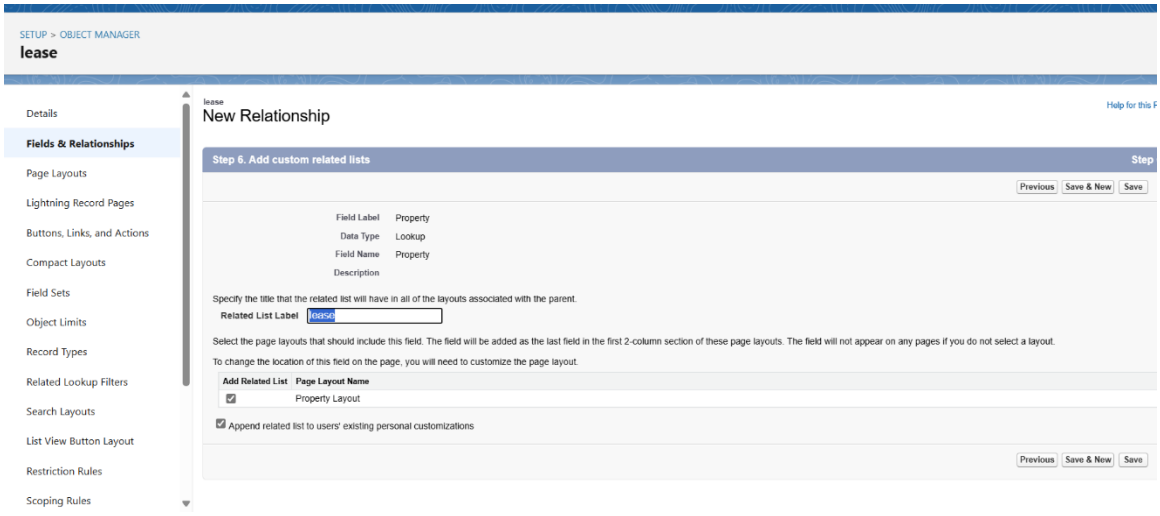

SETUP > OBJECT MANAGER
lease
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
lease
New Relationship
Step 6. Add custom related lists
Step
Previous
Save & New
Save
Field Label Property
Data Type Lookup
Field Name Property
Description
Specify the title that the related list will have in all of the layouts associated with the parent.
Related List Label lease
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
To change the location of this field on the page, you will need to customize the page layout.
Add Related List
Page Layout Name
Property Layout
Append related list to users' existing personal customizations

# 7. User Profiles & Permissions

- Screenshot : Profile Setup for Property Manager - Object permissions (Read/Create/Edit on Lease__c, Payment__c), Record-level access via sharing rules.

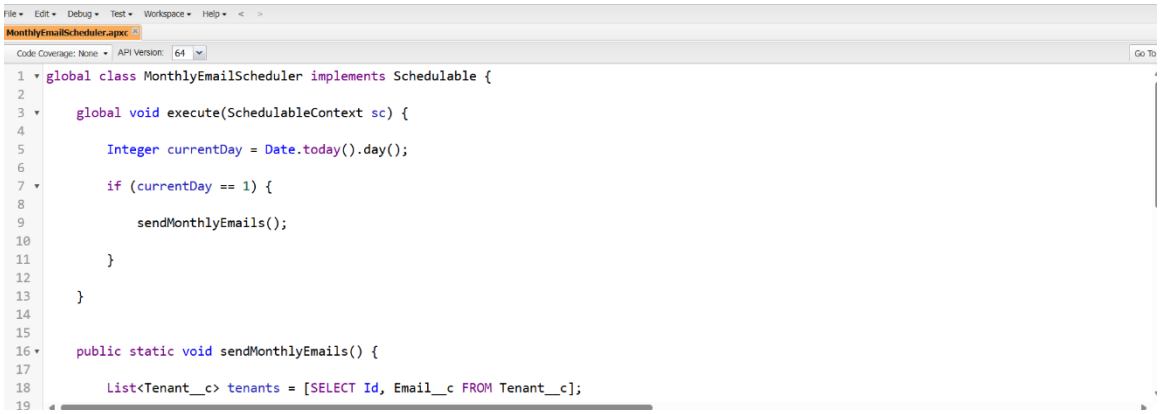


# 8. Deployment & Packaging

- → production deployment, Tested with UAT scripts and error logs/Apex, Scheduleing

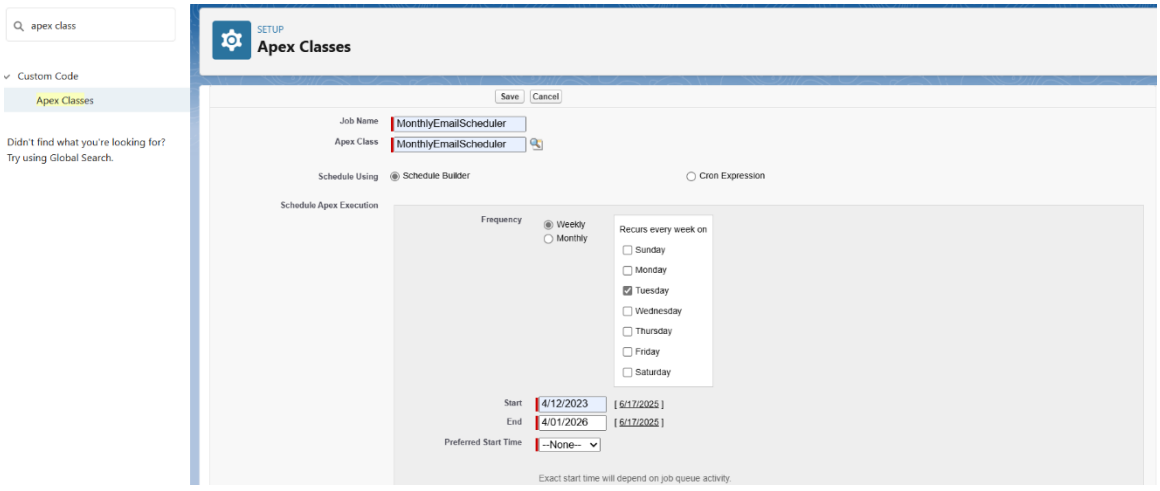


```
global class MonthlyEmailScheduler implements Schedulable {

    global void execute(SchedulableContext sc) {

        Integer currentDay = Date.today().day();

        if (currentDay == 1) {

            sendMonthlyEmails();

        }

    }

    public static void sendMonthlyEmails() {

        List<Tenant__c> tenants = [SELECT Id, Email__c FROM Tenant__c];
```

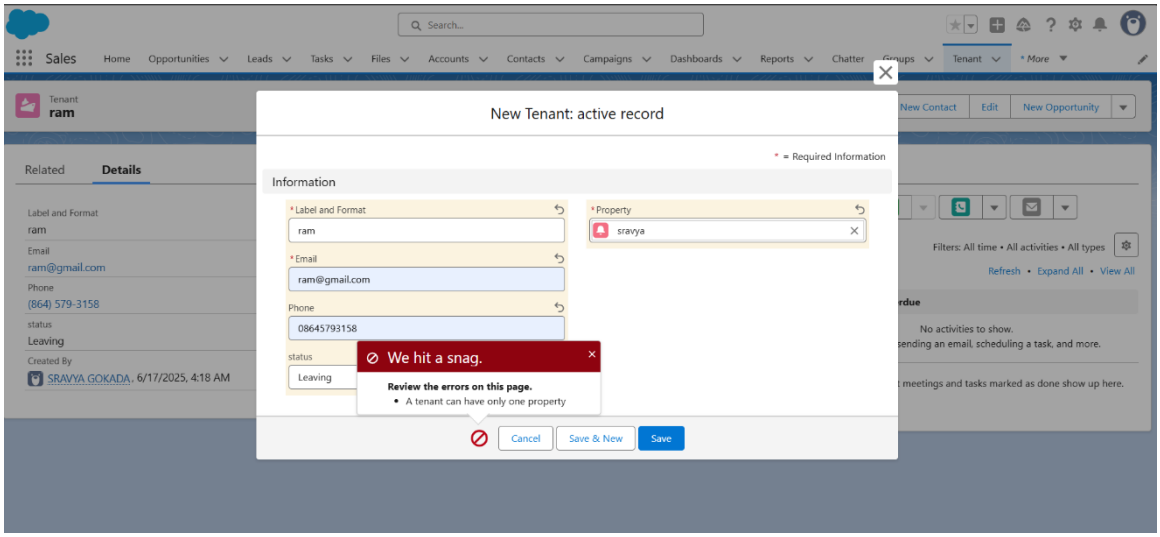
- 

```
        for (Tenant__c tenant : tenants) {

            String recipientEmail = tenant.Email__c;

            String emailContent = 'I trust this email finds you well. I am writing to remind you that the monthly rent  is due Your timely paymen

            String emailSubject = 'Reminder: Monthly Rent Payment Due';

            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();

            email.setToAddresses(new String[]{recipientEmail});

            email.setSubject(emailSubject);

            email.setPlainTextBody(emailContent);

             Messaging.sendEmail(new Messaging.SingleEmailMessage[]{email});
```

- 

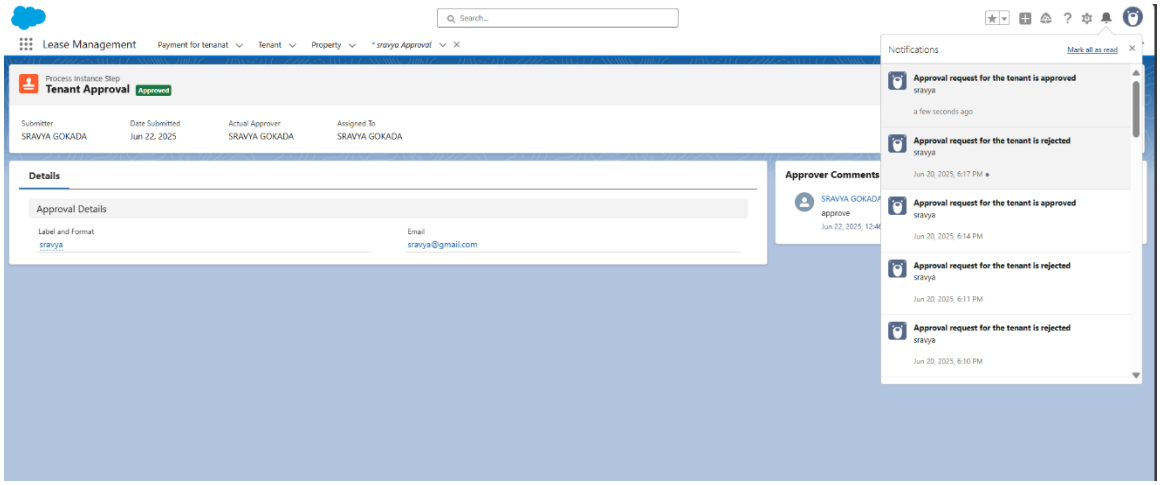


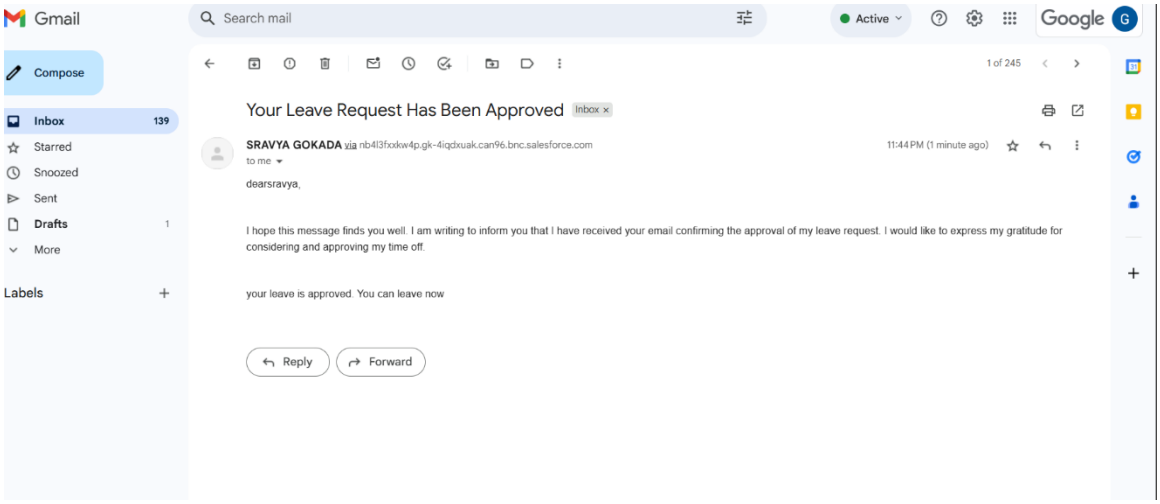

- 

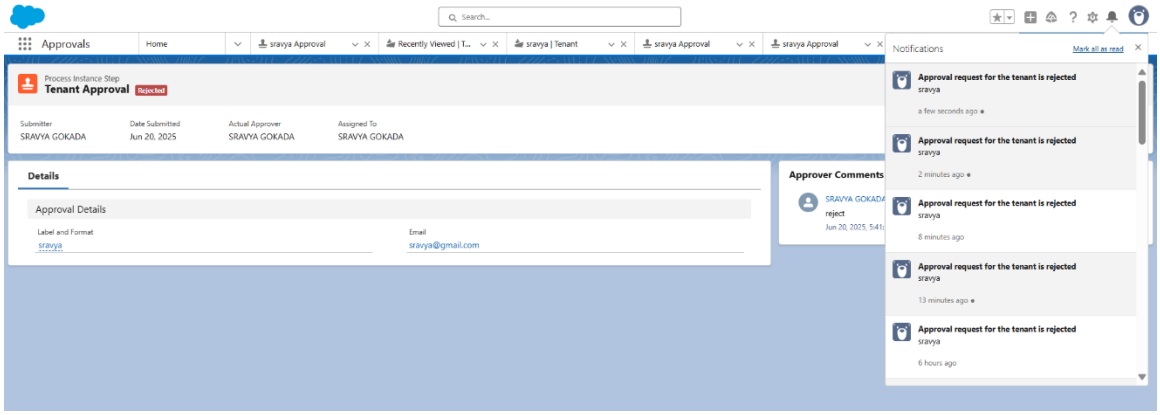
- 

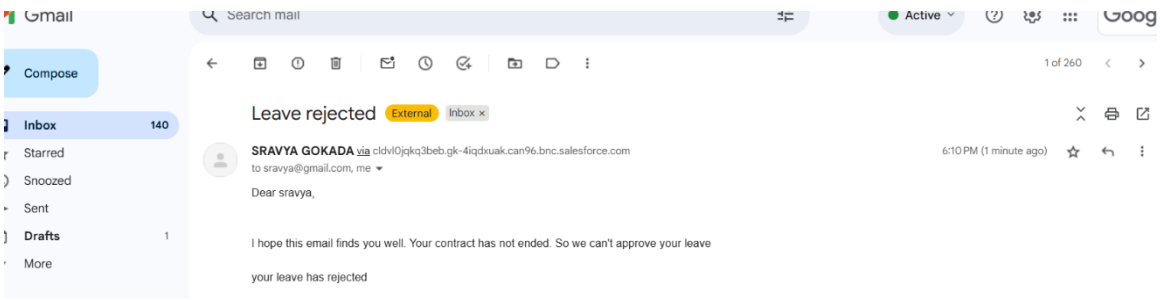

# 8.Output:

Screenshot:




Gmail
Search mail
Active
Google
Compose
Inbox 139
Starred
Snoozed
Sent
Drafts 1
More
Labels
1 of 245
Your Leave Request Has Been Approved
Inbox ×
SRAVYA GOKADA via nb4l3fxxkw4p.gk-4iqdxuak.can96.bnc.salesforce.com
11:44 PM (1 minute ago)
to me
dearsravya,
I hope this message finds you well. I am writing to inform you that I have received your email confirming the approval of my leave request. I would like to express my gratitude for considering and approving my time off.
your leave is approved. You can leave now
Reply
Forward


Approvals
Home
Process Instance Step
Tenant Approval
Rejected
Submitter
SRAVYA GOKADA
Date Submitted
Jun 20, 2025
Actual Approver
SRAVYA GOKADA
Assigned To
SRAVYA GOKADA
Details
Approval Details
Label and Format
sravya
Email
sravya@gmail.com
Approver Comments
SRAVYA GOKADA
reject
Notifications
Mark all as read
Approval request for the tenant is rejected
sravya
a few seconds ago
2 minutes ago
8 minutes ago
13 minutes ago
6 hours ago


Gmail
Search mail
Active
Compose
Inbox 140
Starred
Snoozed
Sent
Drafts 1
More
1 of 260
Leave rejected
External
Inbox ×
SRAVYA GOKADA via cldvl0jqkq3beb.gk-4iqdxuak.can96.bnc.salesforce.com
6:10 PM (1 minute ago)
to sravya@gmail.com, me
Dear sravya,
I hope this email finds you well. Your contract has not ended. So we can't approve your leave
your leave has rejected

## 6.Advantages of Lease Management:

1. Streamlined Processes: Automate lease management processes, reducing manual errors and increasing efficiency.

2. Centralized Data: Store all lease-related data in a single platform, providing real-time visibility and easy access.

3. Improved Compliance: Ensure compliance with lease agreements and regulatory requirements through automated workflows and notifications.

4. Enhanced Reporting: Generate custom reports and dashboards to provide insights into lease performance and rent payments.

5. Scalability: Leverage Salesforce's scalable architecture to accommodate growing lease portfolios and business needs.

6. Integration: Integrate with other Salesforce applications, such as Sales Cloud and Service Cloud, to provide a unified view of customer interactions.

7. Customization: Utilize Salesforce's customization capabilities to tailor the lease management system to specific business needs.

## Disadvantages of Lease Management :

1. Implementation Costs: High upfront costs associated with implementing a customized Salesforce application.
2. Complexity: Lease management processes can be complex, requiring significant configuration and customization.
3. User Adoption: Users may require training to effectively utilize the new system, which can impact adoption rates.
4. Data Migration: Migrating existing lease data to Salesforce can be time-consuming and prone to errors.
5. Integration Challenges: Integrating with other systems or applications can be complex and require additional resources.
6. Customization Limitations: Salesforce's customization capabilities may have limitations, requiring workarounds or compromises.
7. Ongoing Maintenance: Regular maintenance and updates are necessary to ensure the system remains effective and compliant with changing regulations.

Mitigating Disadvantages:

1. Thorough Planning: Carefully plan the implementation, considering complexity, data migration, and integration requirements.
2. User Training: Provide comprehensive user training to ensure adoption and effective utilization.
3. Ongoing Support: Ensure ongoing support and maintenance to address issues and keep the system up-to-date.

4. Regular Review: Regularly review the system's performance and make adjustments as needed to optimize its effectiveness.

# 7.CONCLUSION:

The Lease Management project in Salesforce is a comprehensive solution that streamlines lease-related processes, providing a centralized platform for managing lease agreements, rent payments, and lease terms. By leveraging Salesforce's capabilities, the project offers numerous benefits, including:

- Improved efficiency and productivity
- Enhanced visibility and reporting
- Better compliance and risk management
- Scalability and flexibility

While there are potential challenges and disadvantages, careful planning, user training, and ongoing support can mitigate these issues. Overall, the Lease Management project in Salesforce has the potential to transform lease management processes, enabling organizations to optimize their lease portfolios and improve business outcomes.

Key Takeaways:

- Lease Management in Salesforce offers a robust solution for managing lease agreements and related processes.
- The project requires careful planning, implementation, and ongoing support to ensure success.
- By leveraging Salesforce's capabilities, organizations can improve efficiency, visibility, and compliance in lease management.

Future Directions:

- Continuously monitor and evaluate the system's performance to identify areas for improvement.
- Explore opportunities to integrate the Lease Management system with other Salesforce applications and external systems.
- Stay up-to-date with changing regulations and industry best practices to ensure the system remains compliant and effective.

# 8. FUTURE SCOPE

In a Salesforce developer project, the future scope of Lease Management could include:

1. Custom App Development: Building custom Salesforce apps to manage leases, track rent payments, and automate lease-related processes.
2. Lightning Component Development: Creating Lightning components to provide a user-friendly interface for lease management, including dashboards, reports, and forms.
3. Integration with Other Salesforce Clouds: Integrating Lease Management with other Salesforce clouds, such as Sales Cloud, Service Cloud, and Marketing Cloud, to provide a unified view of customer interactions.
4. API Development: Developing APIs to integrate Lease Management with external systems, such as accounting software, property management systems, and payment gateways.
5. Automation and Workflow: Implementing automation and workflow rules to streamline lease-related processes, such as lease renewals, rent payments, and notices.
6. Data Analytics and Reporting: Developing custom reports and dashboards to provide insights into lease performance, rent payments, and customer behavior.
7. Mobile Optimization: Optimizing Lease Management for mobile devices, enabling users to access lease information, make payments, and submit requests on-the-go.
8. Security and Compliance: Ensuring the security and compliance of Lease Management, including data encryption, access controls, and audit trails.

Benefits:

1. Improved Efficiency: Automating lease-related processes and providing a unified view of customer interactions.
2. Enhanced Customer Experience: Providing a user-friendly interface and mobile optimization for lease management.
3. Better Decision-Making: Providing insights into lease performance and customer behavior through data analytics and reporting.
4. Increased Productivity: Streamlining lease-related processes and reducing manual errors.

Future Directions:

1. Artificial Intelligence (AI) and Machine Learning (ML): Integrating AI and ML to predict lease renewals, optimize rent, and identify potential disputes.
2. Internet of Things (IoT): Utilizing IoT devices to track property conditions and monitor energy consumption.
3. Blockchain: Implementing blockchain technology to secure lease agreements and ensure transparency.

By leveraging Salesforce's capabilities and exploring future directions, Lease Management can become a powerful tool for businesses to manage their leases and improve customer relationships.

GitHub : SravyaGokada/-sales-force-Lease-ManagementPROJECT

Project Demo Link: https://youtu.be/at256klP1gE

(or)

https://youtu.be/at256klP1gE?si=tQcK1pfhqVGAgMuH