# RentEase

## *A Salesforce-Powered Property Rental & Lease Management System*

## Project Overview:-

**RentEase is a Salesforce-based Property Rental & Lease Management System that streamlines end-to-end rental operations by bringing property managers, tenants, maintenance staff, and finance teams onto a unified platform. It simplifies property management, lease tracking, rent collection, and maintenance handling while automating critical processes like invoicing, approvals, and notifications. Powered by Salesforce CRM, automation, Apex, Lightning Web Components (LWC), and real-time dashboards, RentEase enhances transparency, scalability, and tenant satisfaction, enabling property managers and landlords to deliver efficient and modern rental experiences.**

## Project Objectives – RentEase

1. **Centralize Property & Lease Management**
   Provide a single Salesforce platform to manage residential and commercial properties, leases, tenants, and payments.
2. **Automate Rent Collection & Invoicing**
   Reduce manual errors by automating rent invoicing, reminders, overdue payment tracking, and late fee calculation.
3. **Enhance Tenant Experience**
   Deliver a user-friendly tenant portal (via Lightning Web Components / Experience Cloud) for lease access, rent payments, and maintenance requests.
4. **Streamline Maintenance Operations**
   Enable tenants to log maintenance issues digitally while ensuring property managers and staff can track, assign, and resolve them efficiently.
5. **Strengthen Transparency & Communication**
   Provide real-time updates, automated notifications, and service-level visibility to all stakeholders.
6. **Enable Data-Driven Decision Making**
   Build reports and dashboards for property managers and finance teams to track occupancy, revenue, overdue payments, and maintenance trends.
7. **Ensure Scalability & Security**
   Leverage Salesforce's robust security model, role-based access, and scalable architecture to support multiple properties, tenants, and regions.

# Skills Required for RentEase

- **Salesforce Platform Basics** → Learn org setup, company info, and navigation in Setup.
- **Data Modeling** → Create custom objects (Property, Tenant, Lease, Payment, Maintenance) with relationships.
- **Security Management** → Control access using profiles, roles, OWD, and sharing rules.
- **Validation Rules** → Enforce data accuracy
- **Flow Builder** → Automate lease renewals, rent reminders, and maintenance approvals without code.
- **Apex Programming** → Write triggers, batch jobs, and scheduled processes for advanced automation.
- **Lightning App Builder** → Build custom record pages and dashboards for managers and tenants.
- **Lightning Web Components (LWC)** → Create tenant portal features like rent payment and maintenance requests.
- **Reports & Dashboards** → Visualize rent collection, occupancy, and property performance.
- **Data Import/Export Tools** → Use Data Loader and Import Wizard for bulk tenant and lease data.
- **Problem-Solving** → Debug errors in flows, Apex, and LWC while improving system logic.
- **Documentation & Presentation** → Prepare ERD diagrams, workflows, and showcase the final demo.

# Phase 1: Requirement Analysis & Planning

## 1. Understanding Business Requirements

### Objective:

Understand how property rental and lease companies operate, what challenges they face in managing property listings, tenant relationships, lease agreements, rent collection, maintenance requests, and after-rental services

### Key Business Requirements

1. **Manage Properties with Lease & Availability Details**
   Maintain a centralized catalog of properties with details like location, rent, lease duration, and availability status.
2. **Automate the Rental Lifecycle (Inquiry → Lease → Payment → Renewal/Closure)**
   Streamline tenant onboarding, lease agreement creation, rent collection, and renewal tracking with minimal manual effort.
3. **Enable Dynamic Rent Management**
   Configure flexible rent pricing, late fee policies, and automatic invoice generation using Salesforce Pricebooks and automation.
4. **Tenant Experience Portal**
   Provide tenants with a Salesforce Experience Site to view their lease details, submit maintenance requests, and track rent payments.
5. **Automated Communication & Notifications**
   Send email/SMS notifications for lease approvals, rent due reminders, overdue alerts, and maintenance status updates.
6. **Maintenance & Service Request Tracking**
   Allow tenants to raise service cases for property issues, assign them to staff, and track resolution using Salesforce Service Cloud.
7. **Role-Based Access & Security**
   Ensure secure access by defining roles for Property Managers, Tenants, Maintenance Staff, and Finance Teams, with permissions aligned to their responsibilities.
8. **Reporting & Dashboards for Managers**
   Provide real-time insights into occupancy rates, rental revenue, overdue payments, and maintenance performance through Salesforce dashboards.

# 2. <u>Defining Project Scope & Objectives</u>

## <u>Project Scope</u>:

1. **Manage Properties**

   Store property details such as location, type, rent amount, and availability.

2. **Track Leases**

   Manage tenant leases including start/end dates, rent amount, and lease status.

3. **Automate Rent Processes**

   Automate rent invoicing, payment reminders, and overdue tracking.

4. **Maintenance Request Management**

   Enable tenants to submit maintenance requests and track their status.

5. **Tenant-Facing Portal**

   Provide an Experience Cloud portal for tenants to view leases, make payments, and submit service requests.

6. **Dashboards & Reports**

   Create dashboards and reports for property managers and finance teams (occupancy, revenue, payments, maintenance).

7. **Role-Based Access Control**

   Implement profiles and roles for property managers, tenants, maintenance staff, and finance teams.

8. **Notifications & Alerts**

   Send email or in-app notifications for lease renewals, rent due dates, and maintenance updates.

9. **Multi-Property Support**

   Support multiple properties and tenants within a single Salesforce org.

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# 3. Gathering & Analyzing User Needs

## Users Involved:

1. **Property Manager** → Manages properties, leases, tenants, payments, and maintenance.
2. **Tenant** → Views lease details, makes rent payments, and submits maintenance requests.
3. **Maintenance Staff** → Receives and resolves maintenance requests, updating their status.
4. **Finance / Accounts Team** → Tracks rent collection, overdue payments, and generates financial reports.
5. **System Administrator (You / Developer)** → Configures Salesforce org, manages security, automation, and dashboards.

## Key Functional Needs:

1. **Property Management:** Add and manage properties with details like location, type, rent, and availability.
2. **Lease Tracking:** Monitor tenant leases, start/end dates, rent amounts, and lease status.
3. **Rent Automation:** Generate rent invoices, send payment reminders, and track overdue payments.
4. **Tenant Portal:** Allow tenants to view leases, make payments, and submit maintenance requests.
5. **Maintenance Management:** Receive, assign, and track maintenance requests from tenants.
6. **Dashboards & Reporting:** Provide real-time insights on occupancy, revenue, payments, and maintenance.
7. **Role-Based Access:** Control system access for property managers, tenants, maintenance staff, and finance teams.
8. **Notifications & Alerts:** Send email/in-app alerts for lease renewals, rent due dates, and maintenance updates.
9. **Multi-Property Support:** Manage multiple properties, tenants, and leases in a single system.

# 4. <u>Identifying Key Salesforce Features & Tools Required</u>

## <u>Salesforce Features Planned:</u>

1. **Custom Objects & Fields** → Property, Tenant, Lease, Payment, and Maintenance objects with necessary fields.
2. **Relationships** → Lookup and Master-Detail relationships to connect Property → Lease → Tenant → Payment.
3. **Profiles, Roles & Permission Sets** → Control access for Property Managers, Tenants, Maintenance Staff, and Finance Team.
4. **Org-Wide Defaults (OWD) & Sharing Rules** → Ensure data visibility aligns with user roles.
5. **Validation Rules** → Maintain data accuracy
6. **Flow Builder** → Automate rent invoicing, lease renewals, payment reminders, and maintenance workflows.
7. **Approval Processes** →: Approve leases or maintenance completions automatically.
8. **Apex Triggers & Classes** → Automate complex logic like overdue rent updates and scheduled invoicing.
9. **Lightning Web Components (LWC)** → Build tenant-facing portal for lease info, payments, and maintenance requests.
10. **Reports & Dashboards** → Track occupancy, payments, overdue rents, and maintenance performance.
11. **Experience Cloud** → Tenant portal for self-service access.
12. **Email Alerts & Notifications** → Automated notifications for rent due, lease renewal, and maintenance updates.
13. **Data Loader / Import Wizard** → Bulk upload property, tenant, and lease data.
14. **Scheduled Jobs / Batch Apex** → Automate recurring tasks like monthly invoicing and reporting.

# 5. Designing Data Model and Security Model

## Data Model Includes:

**1. Property (Custom Object)**

- **Fields:** Property Name, Address, Type, Rent Amount, Availability Status
- **Relationships:** One Property → Many Leases

**2. Tenant (Custom Object)**

- **Fields:** Tenant Name, Contact Info, ID Proof, Email
- **Relationships:** One Tenant → Many Leases
- Related to Maintenance Requests

**3. Lease (Custom Object)**

- **Fields:** Lease Start Date, Lease End Date, Rent Amount, Status
- **Relationships:** Lease → Property
- Lease → Tenant
- Lease → Payment

**4. Payment (Custom Object)**

- **Fields:** Payment Amount, Due Date, Payment Date, Status, Late Fee
- **Relationships:** Payment → Lease

**5. Maintenance Request (Custom Object)**

- **Fields:** Issue Type, Description, Status, Assigned Staff, Request Date
- **Relationships:** Maintenance → Tenant
- Maintenance → Property

**6. Staff/User (Custom Object)**

- **Fields:** Staff Name, Role, Contact Info, Assigned Properties/Tasks
- **Relationships:** Staff → Maintenance Requests

**7. Notification Log (Custom Object)**

- **Fields:** Notification Type, Recipient, Date Sent, Status
- **Purpose:** Track all automated alerts sent to tenants, property managers, and staff

# Data Model Includes:

1. **Profiles & Roles:**
   - Property Manager → Full access to all objects.
   - Tenant → Access only to their Lease, Payments, and Maintenance Requests.
   - Maintenance Staff → Update assigned Maintenance Requests.
   - Finance Team → Access Lease and Payment objects.
   - Staff/User → Access only their assigned Maintenance Requests.

2. **Permission Sets:**
   - Extra permissions for temporary tasks or special reporting needs.

3. **Org-Wide Defaults (OWD):**
   - Property, Lease, Payment, Maintenance → Private
   - Staff/User → Private
   - Notification Log → Read-only for managers

4. **Sharing Rules:**
   - Property Managers can view all tenants, leases, and payments in their region.
   - Finance team sees all payments for reconciliation without sensitive tenant info.

5. **Field-Level Security (FLS):**
   - Sensitive fields like tenant ID, payment details, or staff personal info restricted to authorized profiles.