

# Planning and Logic Document

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|---------------|--------------------|
| Date          | 3 August 2025      |
| Team ID       | LTVIP2025TMID30830 |
| Project name  | Lease management   |
| Maximum Marks |                    |

## Project Planning and Logic – Lease Management

### 1. Planning Phase

#### Project Goals:

- Digitize and automate lease operations.
- Centralize data for properties, tenants, leases, and payments.
- Reduce manual work through automation.
- Ensure data accuracy and compliance with business rules.

#### Project Scope:

- Build a Salesforce Lightning App.
- Use custom objects and relationships to model real estate operations.
- Integrate validation, approvals, email communication, and automation.

#### Stakeholders:

- **Salesforce Admins** – App configuration and rule enforcement.
  - **Developers** – Backend logic (Apex, Flows).
  - **Managers / End Users** – Monitor and manage lease-related tasks.
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### 2. Logical Design

#### Data Model Design:

##### Objects and Fields:

- Property → Address, Type, Size
- Tenant → Name, Email, Phone, Status
- Lease → Start/End Dates, Status
- Payment → Amount, Due Date, Paid Status

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- **Relationships:**

- Tenant ↔ Property: Master-Detail (One-to-One)
- Payment ↔ Tenant: Lookup
- Payment ↔ Property: Master-Detail

- ◆ **Business Rules and Logic:**

| Requirement                             | Tool Used             | Logic Implemented  |
|---|-----------------------|--|
| Only one active tenant per property     | Apex Trigger          | Checks before assigning; throws error if property already assigned     |
| Lease end date must be after start date | Validation Rule       | End_date__c > Start_date__c  |
| Lease approval before activation        | Approval Process      | Multi-step review and status update with email alerts                  |
| Rent reminders to tenants               | Scheduled Apex Class  | Automated monthly emails using templates and batch jobs                |
| Payment logging                         | Manual + Apex Trigger | When payment is recorded, associated lease and tenant data are updated |

- ◆ **User Interaction Logic:**

1. Admin/Manager logs into Lease Management App
  2. Creates new Tenant & Property records
  3. Submits Lease for Approval
  4. System validates and routes for approval
  5. **Upon approval:**
    - Lease marked active
    - Scheduled job sends monthly rent reminders
  6. Tenant makes payment
  7. Payment is logged under Payment object
  8. Dashboard reports update in real-time
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## Planning and Logic Document

### ✓ Tools & Technologies:

- **Salesforce Lightning App Builder** – UI components
- **Object Manager** – Data modeling
- **Flows & Process Builder** – Workflow automation
- **Apex (Triggers, Classes)** – Custom logic
- **Validation Rules** – Data constraints
- **Reports & Dashboards** – Output and analytics

### CONCLUSION:

The Lease Management Project was executed with careful planning and strong logical structuring to meet the operational needs of property and lease administration. The planning phase focused on defining goals, identifying stakeholders, and outlining the functional scope. The logic phase centered on system design, data integrity, and automation workflows.