

Project Design Phase-II

Data Flow Diagram & User Stories

DATE	01/11/2025
TEAM ID	NM2025TMID01369
PROJECT NAME	Lease Management
MAXIMUM MARKS	4 MARKS

Data Flow Diagrams (DFD):

A **Data Flow Diagram (DFD)** is a visual tool that illustrates how information moves within a system — how data enters, is processed, stored, and exits. In the “**Lease Management System**” project, the DFD represents how lease-related data flows between tenants, property owners, and the admin through the Salesforce platform.

The diagram visually explains how lease creation, rent tracking, and renewal notifications occur. It shows the interaction among users, the lease database, and Salesforce automation components such as flows and validation rules.

The **DFD** helps to understand how each action — like creating a lease, updating payment records, or sending reminders — interacts with the database to ensure smooth, automated, and error-free management of lease information.

Data Flow Description:

- Admin/User Input:** The Admin enters lease details (tenant info, property, start date, end date, rent amount) into the system.
- System Validation:** Salesforce validates data (e.g., start date < end date, rent amount required).
- Database Update:** The data is stored in the **Lease Records Table** and linked with tenant and property data.

4. **Automation Process:** Scheduled Flows send **payment reminders** and **renewal alerts** automatically.
5. **Reporting & Dashboards:** Managers can view **lease reports** such as active leases, upcoming renewals, or unpaid rents.

User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Sprint
Administrator	Lease Management	LSM-1	<p>As an admin,</p> <p>I want to create and manage lease records, linking tenants and properties.</p>	The system should allow adding new leases with valid tenant and property details.	High	Sprint-1
System (Auto Validation & Check)	Validation & Automation	LSM-2	<p>As a system, I must validate lease dates and automatically send payment reminders before due dates.</p>	System should validate that start date < end date and send alerts automatically.	High	Sprint-1

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Sprint
Tenant	Payment Tracking	LSM-3	<p>As a tenant, I want to receive reminders and confirm rent payments digitally.</p>	<p>System sends notification 3 days before due date and marks status as "Paid" once confirmed.</p>	Medium	Sprint-2
Manager	Reporting & Monitoring	LSM-4	<p>As a manager, I want to view dashboards showing active leases, overdue payments, and upcoming expirations.</p>	<p>Dashboards should show real-time data of all leases and payments.</p>	High	Sprint-2
System (Auto Update)	Renewal & Alert Notifications	LSM-5	<p>As a system, I must alert admin and tenant before lease expiration for timely renewal.</p>	<p>Renewal alert is sent 7 days before lease end date via email or in-app notification.</p>	Medium	Sprint-3

Explanation:

This DFD-based design ensures:

- **Accuracy** of lease and payment data through validation rules.
- **Automation** via Salesforce Flows for reminders and renewals.
- **Transparency** through dashboards and reports.
- **Scalability**, allowing new modules (e.g., maintenance requests or deposit tracking) to be added easily.