

TECHNOLOGY STACK & ARCHITECTURE

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

Technical architecture Overview:

The Lease Management System is built entirely on the **Salesforce Platform**, utilizing both **declarative** (point-and-click) and **programmatic** (code-based) components to automate lease operations, enforce business rules, and enable real-time data tracking.

Technical stack components :

Technical Architecture Overview – Layered Model

Tool / Component	Purpose
Presentation Layer (User Interface)	Provides a user-friendly interface for managing objects (Property, Tenant, Lease, Payment)
Custom Tabs & Page Layouts	Easy navigation and tailored data views for each object
Profiles & Permission Sets	Restrict UI visibility based on user roles (admin, manager, staff)

Data Layer (Database & Objects)

Custom Salesforce Objects	Stores and structures data: Property, Tenant, Lease, Payment
Master-Detail & Lookup Relationships	Establish logical links between records (e.g., Payment → Tenant, Lease → Property)
Custom Fields	Capture specific attributes (e.g., lease dates, rent amount, tenant status)

Business Logic Layer

Validation Rules	Enforce data correctness (e.g., lease end date must be after start date)
Apex Triggers	Backend logic to prevent errors (e.g., one tenant per property restriction)
Apex Classes & Handlers	Reusable code blocks to streamline automation and logic execution
Automation Layer	Manages multi-step lease approvals with record locking and email alerts

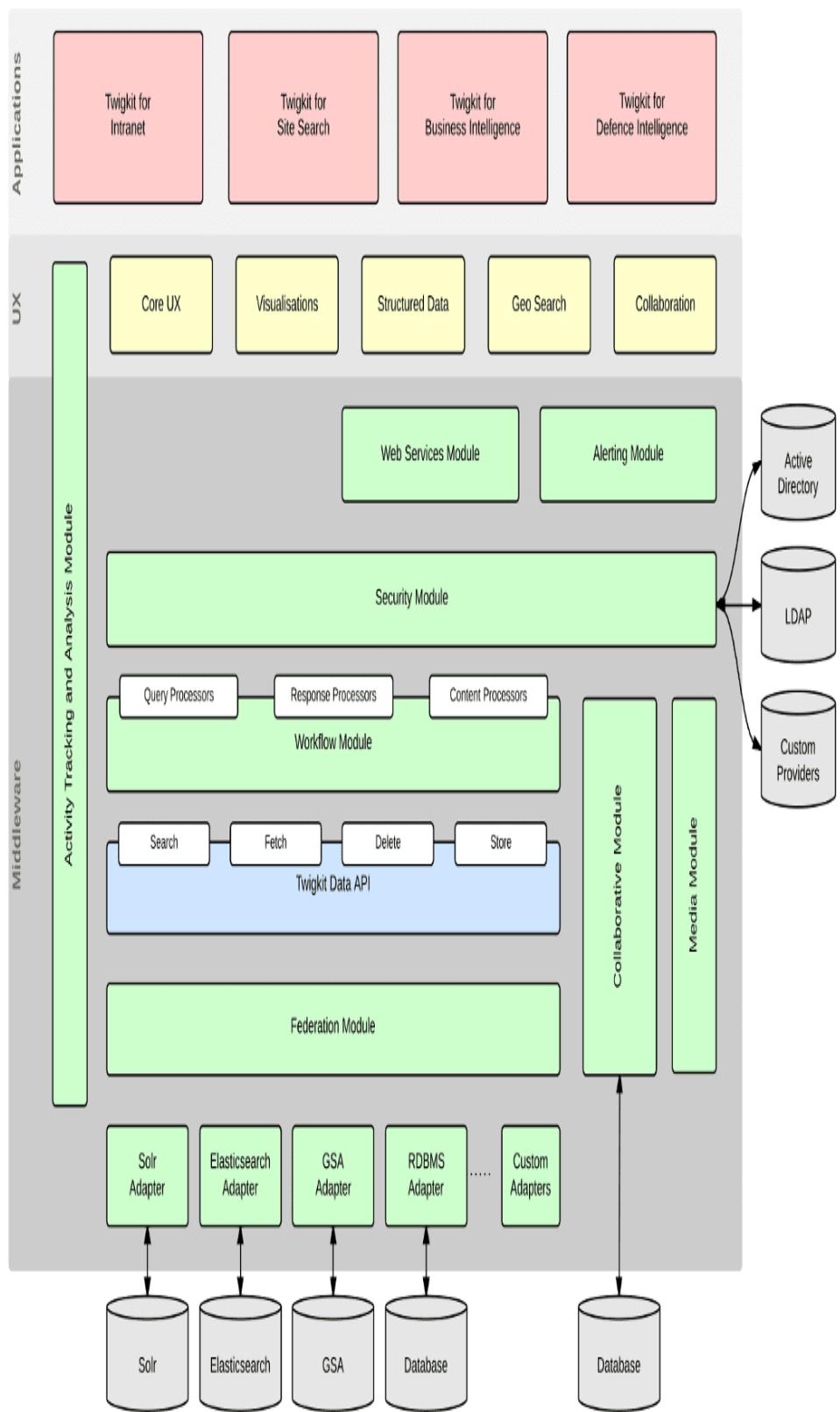
Automation Layer

Flows (Flow Builder)	Automate tasks like updating fields, sending emails, and creating re-
Scheduled Apex Jobs	Automate time-based actions like monthly rent reminders
Email Templates	Standardize lease notifications, approval updates, and rent alerts

Reporting & Analytics Enhancement Layer

Report Studio	Generate reports and dashboards for lease data analysis
Power BI Integration	Integrate lease data with Power BI for advanced analytics
Machine Learning Models	Apply machine learning to predict lease renewals and track performance

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Conclusion

The Lease Management System successfully streamlines real estate lease workflows through a centralized, automated Salesforce Lightning application. It improves accuracy in data entry, enhances communication via email automation, and supports complex business logic with validation rules and Apex code.