SOLUTION ARCHITECTURE – LEASE MANAGEMENT SYSTEM

Date	01 November 2025
Team ID	NM2025TMID04875
Project Name	Lease Management System
Maximum Marks	4 Marks

SOLUTION ARCHITECTURE

The Lease Management System architecture is designed to deliver a centralized and automated solution for managing property leases, tenants, and payment workflows. It ensures scalability, security, and seamless integration with external services for rent processing and communication. Built using a modular approach, it supports easy maintenance and future upgrades while promoting efficient data management across all components.

Goals of the Architecture

The architecture aims to create a unified, scalable, and secure digital platform to simplify lease management. It provides automation for rent tracking, payment reminders, and document management while ensuring data security and real-time access. The design also promotes integration with external services such as payment gateways and notification systems to improve user convenience.

Key Components

The system consists of several major components: • Custom modules for property, tenant, lease, and payment management. • Automated workflows for rent reminders, lease renewals, and document tracking. • Dashboards and analytics for performance monitoring and insights. • Role-based access control to ensure secure data handling across user roles. • Integration with third-party tools for payments and notifications.

Development Phases

The development process follows structured stages: • Requirement analysis and database modeling. • Designing modules for property, lease, and payment management. • Implementing automation for reminders, renewals, and alerts. • Testing for data consistency and performance. • Deploying dashboards, access controls, and integrations for a complete cloud-based lease management solution.

Solution Architecture Description

The Lease Management System is built on a cloud-based architecture integrating data management, automation, and analytics. It connects tenants, owners, and administrators through dedicated portals and uses a relational database to manage property and lease data. Automation modules manage renewals, payments, and notifications, while dashboards provide key metrics and reports. The architecture ensures data security,

scalability, and seamless communication between components, offering a high-performing and reliable solution for digital lease management.

Solution Architecture Diagram :

CLOUD INFRASTRUCTURE (e.. AWS/Azure)

SOLUTION ARCHITECTURE DIAGRAM: LEASE MANAGEMENT SYSTEM