

Project Design Phase – II

Technology Stack (Architecture &Stack)

Date	03 November 2025
Team ID	NM2025TMID03205
Project Name	Lease Management
Maximum Marks	4 Marks

Technical Architecture:

The application architecture consists of UI, backend APIs, cloud hosting, database, reminder/notification engine, and storage services.

Example System Flow:
Tenant/Owner → Web/App → Backend API → Database → Reminder Engine → Notifications
(Architecture Diagram Placeholder)

Reference: <https://developer.ibm.com>

Table-1: Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Tenant/Owner dashboard	React / HTML / CSS
2	Application Logic-1	Lease & tenant entry	Node.js / Express
3	Application Logic-2	Reminder scheduling engine	Cron / Node.js
4	Application Logic-3	Notification sending	SMTP / Firebase API
5	Database	Stores tenant/lease/payment data	MySQL / PostgreSQL
6	Cloud Database	Managed DB & backup	Firebase / AWS RDS
7	File Storage	Stores lease documents	AWS S3 / Firebase Storage
8	External API-1	SMS/Email alerts	Twilio / SMTP APIs
9	External API-2	Future online rent payment	Razorpay / PayPal
10	ML Model	Future enhancement option	—
11	Infrastructure	Cloud hosting & scaling	AWS / Firebase

Table-2: Application Characteristics

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Backend & UI based on open stack	React / Node.js
2	Security	Protected access & encryption	JWT / HTTPS
3	Scalable Architecture	Multi-tenant leasing workflow	Cloud Scaling
4	Availability	Accessible 24x7	Cloud Load Balancers
5	Performance	Fast DB queries & alert engine	Caching / Optimization