Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	21-02-2026
Team ID	LTVIP2026TMID53603
Project Name	HouseHunt: Finding Your Perfect Rental Home
Maximum Marks	4 Marks

Technical Architecture:

House Hunt: Finding Your Perfect Rental Home is designed with a scalable 3-tier architecture consisting of:

- **Presentation Layer (Frontend):**

  User-friendly interface for renters, property owners, and administrators to search listings, post properties, and manage bookings. The web interface is responsive and intuitive across devices.

- **Business Logic Layer (Backend):**

  Handles property search and filtering, booking confirmations, user registration, lease negotiation, and admin approvals. RESTful APIs manage communication between clients and server.

- **Data Storage Layer:**

  Securely stores user profiles, property listings, booking history, inquiry messages, and lease agreement data using a NoSQL database.

The system supports real-time interactions and uses token-based authentication (JWT) for secure access control.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Responsive web interface for renters, owners, and admin	React.js, HTML, CSS, Bootstrap, MUI
2.	Application Logic-1	Property booking, inquiry submission, search filters	Node.js, Express.js
3.	Application Logic-2	Admin panel, owner verification, lease and property management	React.js, Node.js
4.	Database	Stores property details, user info, booking history, messages	MongoDB

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
5.	Open-Source Frameworks	Modular frontend/backend development	React.js, Node.js, Bootstrap, Tailwind
6.	Scalable Architecture	REST API integration with dynamic component handling	MERN Stack with JWT

References:

- React.js Official Documentation
- Node.js Best Practices
- MongoDB Data Modeling
- JWT Authentication