Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 31/06/2025 |
|---------------|--|
| Team ID | LTVIP2025TMID46284 |
| Project Name | House hunt: Finding your perfect rental home |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|-----------|--------------------------------|---|
| FR-1 | User Registration | Registration via Form Registration via Gmail (optional) |
| FR-2 | User Login & Authentication | Login using email & password Role-based login (Admin, Owner, Renter) |
| FR-3 | Property Management | Owner can Add / Edit / Delete property View property list |
| FR-4 | Property Search | Renter can search by filters (location, price, amenities) Save searches |
| FR-5 | Booking Process | Renter submits booking request Owner updates booking status |
| FR-6 | Admin Management | Admin approves users as Owners Admin monitors property listings |
| FR-7 | Notifications | Email alerts on booking & approval Price drop alerts |
| FR-8 | View Booking History | Renter can view previous/current bookings Status shown as Pending / Approved / Rejected |
| FR-9 | Media Upload | Owner uploads property images Supports multiple images |
| FR-1 0 | Dashboard | Individual dashboards for Renter, Owner, and Admin |

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

| NFR No. | Non-Functional Requirement | Description |
|------------|-------------------------------|--|
| NFR-1 | Usability | Intuitive UI using React, Material UI, and Bootstrap for a smooth user journey |
| NFR-2 | Security | Secure authentication with JWT, encrypted passwords using bcryptjs |
| NFR-3 | Reliability | Consistent MongoDB storage, error-handling with Express.js |
| NFR-4 | Performance | Fast load times, Axios for efficient API requests, optimized routing |
| NFR-5 | Availability | 24/7 access on browser; can be hosted on cloud platforms like Vercel/Heroku |
| NFR-6 | Scalability | Built on scalable MERN architecture, modular codebase for future upgrades |