

## Requirement Gathering and Analysis Phase

### Solution Requirements (Functional & Non-functional)

|              |                     |
|--------------|---------------------|
| Date         | 27 June 2025        |
| Team ID      | LTVIP2025TMID47699  |
| Project Name | Project - HouseHunt |

#### 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 through Form<br>Registration through Gmail         |
| FR-2   | User Confirmation                              | Confirmation via Email  |
| FR-3   | Search Filters                                 | Search on the basis of location, price range, and property type |
| FR-4   | Market, Environment and neighbourhood insights | Statistical as well as visual data providing this information   |
| FR-5   | Post your Property Functionality               | High quality pictures and videos uploading portal for landlords |
| FR-6   | Payment Page                                   | Authentication and bank to bank smooth transfer                 |
| FR-7   | Tenants Plan Page                              | Establishing a communication framework                          |

#### Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description   |
|--------|----------------------------|---|
| NFR-1  | <b>Usability</b>           | The website will have a user-friendly interface that is easy to navigate for all users and will appeal to both buyers and sellers.  |
| NFR-2  | <b>Security</b>            | 1) <b>Encryption</b> : We ensure all sensitive data (e.g., personal information, payment details) is encrypted both in transit (using HTTPS) and at rest.<br>2) <b>Authentication and Authorization</b> : We will implement secure authentication mechanisms (e.g., multi-factor authentication) and proper authorization controls to protect user accounts and data.<br>3) <b>Data Protection</b> : We comply with data protection regulations (GDPR, CCPA) to safeguard user privacy and ensure proper handling of personal data. |
| NFR-3  | <b>Reliability</b>         | 1) <b>High Availability</b> : We aim to minimize downtime by using redundant servers, load balancers, and   |

|       |                     |   |
|-------|---------------------|---|
|       |                     | <p>failover mechanisms to ensure the website is always accessible.</p> <p>2) <b>Fault Tolerance:</b> We will implement strategies to recover from failures gracefully without impacting user experience, such as database backups and disaster recovery plans.</p> <p>3) <b>Monitoring and Logging:</b> Monitoring the website's performance and log errors to proactively identifying and addressing issues that may affect reliability.</p>   |
| NFR-4 | <b>Performance</b>  | <p>1) <b>Response Time:</b> We will ensure fast response times for page loading and data retrieval to enhance user experience.</p> <p>2) <b>Scalability:</b> We will design the website to handle increasing numbers of users and transactions without significant degradation in performance.</p> <p>3) <b>Caching:</b> Utilizing caching mechanisms (e.g., CDN, browser caching) to improve response times and reduce server load.</p>  |
| NFR-5 | <b>Availability</b> | <p>1) <b>Uptime Guarantee:</b> We will define and meet service level agreements (SLAs) for website availability to ensure it meets user expectations.</p> <p>2) <b>Geographic Redundancy:</b> Use of multiple data centers or cloud regions to ensure the website remains accessible even during regional outages.</p> <p>3) <b>Scheduled Maintenance:</b> We will plan and communicate scheduled maintenance windows to minimize disruptions to users.</p>                               |
| NFR-6 | <b>Scalability</b>  | <p>1) <b>Horizontal Scaling:</b> Designing the architecture to support horizontal scaling by adding more servers or cloud instances to handle increased traffic and data.</p> <p>2) <b>Elasticity:</b> Automatically scale resources up or down based on demand to optimize performance and cost-effectiveness.</p> <p>3) <b>Database Scalability:</b> Implementing scalable database solutions (e.g., sharding, replication) to handle growing datasets and concurrent transactions.</p> |