**Project Design Phase-II**

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

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| Date | 13 April 2025 |
| Team ID | SWTID1743517551 |
| Project Name | HOUSEHUNT – A HOUSE RENT APP |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| --- | --- | --- |
| **FR No** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| **FR-1** | User Registration | Registration via Form,  Registration via Form Gmail,  Registration via Form Facebook |
| **FR-2** | User Confirmation | Email and OTP confirmation |
| **FR-3** | User Login | Login via Form or Social Media |
| **FR-4** | House Discovery | Browse by Type/Location,  Filter by Rent/Rating |
| **FR-5** | House Details Viewing | View House Info (price, location, images) |
| **FR-6** | Booking Management | Add/Remove Bookings,  View Summary |
| **FR-7** | Booking Placement | Select Dates, Payment Mode,  Confirm Booking |
| **FR-8** | Booking Tracking | View Booking Status,  Live Status Updates |
| **FR-9** | Booking History | View Past Bookings,  Repeat Bookings |
| **FR-10** | Ratings and Reviews | Rate Owners/Houses,  Write Reviews |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The UI should be intuitive, responsive, and accessible on both web and mobile. Filters (location, budget, property type), clear icons, and an easy booking flow should be provided to improve user experience. |
| NFR-2 | **Security** | Secure user data and transactions using SSL/TLS encryption. Use secure login (OAuth2/JWT), validate user identity during booking, and follow GDPR for personal data handling. |
| NFR-3 | **Reliability** | The platform should handle high volumes of booking requests without errors. Automatic backup and recovery of booking and user data should be ensured. Integrity checks must be in place for payment and transaction logs. |
| NFR-4 | **Performance** | Webpages and search results should load within 2 seconds. Implement caching (e.g., Redis), compress images, and optimize database queries to ensure fast performance. |
| NFR-5 | **Availability** | Ensure 99.9% uptime using cloud infrastructure, autoscaling, load balancers, and redundancy for critical services like booking and payment APIs. |
| NFR-6 | **Scalability** | |  | | --- | |  |  |  | | --- | | The system must scale to support high traffic during  peak seasons (e.g., festivals, relocation periods). Use microservices, containerization, and load balancing to manage increased demand. | |