**Project Design Phase-II**

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

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| Date | 28 JUNE 2025 |
| Team ID | LTVIP2025TMID49487 |
| Project Name | House hunt: finding your perfect rental home |
| 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 through Form  Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Order Placement | Add products to cart Apply discount/coupon code  Place order in offline/online mode |
| FR-4 | AI Chatbot Support | Natural language conversation  Help with placing orders Order tracking |
| FR-5 | Voice-Based Ordering | Convert voice to text using Watson STT Process voice commands for order placement |
| FR-6 | Order Status & Tracking | View order history Track order using Order ID  Delivery status notifications |
| FR-7 | Admin Panel | View/manage all orders Update order status Access analytics dashboard |
| FR-8 | Product Management | Add/update/remove products Categorize products |
| FR-9 | Payment Processing (if online) | Integration with payment gateway Handle payment status callbacks |
| FR-10 | Weather-Aware Delivery Logic | Use weather API to assess delivery conditions Alert users in case of disruption |

**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** | Intuitive UI/UX design for end-users on web & mobile, responsive layout |
| NFR-2 | **Security** | Secure user data, encrypted API communication, IAM controls, OWASP practices |
| NFR-3 | **Reliability** | 99.9% uptime target, robust failover mechanisms, automated backups |
| NFR-4 | **Performance** | Handle 1000+ concurrent users, <300ms API response time, caching for speed |
| NFR-5 | **Availability** | Multi-zone cloud setup, load balancers, auto-restart for failed containers |
| NFR-6 | **Scalability** | Containerized microservices with autoscaling support via Kubernetes |