**Project Design Phase-II**

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

|  |  |
| --- | --- |
| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID59561 |
| Project Name | HealthAI: Intelligent Healthcare Assistant Using IBM Granite |
| 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 through Form - Registration through Gmail - Registration through LinkedIn |
| FR-2 | User Confirmation | - Confirmation via Email - Confirmation via OTP |
| FR-3 | Disease Prediction | - Symptom input by user - Disease prediction using AI/ML model |
| FR-4 | Treatment Suggestion | - Suggest probable treatments - Redirect to chatbot or articles |
| FR-5 | Chatbot Interaction | - General health questions - AI replies using trained models |
| FR-6 | User Dashboard | - Show previous logs - Graphs/analytics on predictions |
| FR-7 | Admin Panel | - View logs - Manage users - Track reports |
| FR-8 | Customer Support | - Escalated chatbot queries routed to care executive |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **NFR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | Usability | The system should offer a clean, intuitive UI for both web and mobile users. |
| NFR-2 | Security | All user data must be encrypted. OAuth 2.0 used for login. Access control enforced. |
| NFR-3 | Reliability | System should be able to handle failed predictions gracefully with fallback messages. |
| NFR-4 | Performance | The AI prediction response time should be within 3 seconds on average. |
| NFR-5 | Availability | The application must be available 99.9% of the time (except planned maintenance). |
| NFR-6 | Scalability | Backend should support 10x user growth using horizontal scaling (e.g., via AWS or Firebase). |