**Project Design Phase-II**

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

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| Date | 27 june 2025 |
| Team ID | LTVIP2025TMID59171 |
| Project Name | HealthAI: Intelligent Healthcare Assistant Using IBM Granite |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

These define **what the Health AI system should do**, i.e., features and behaviors that fulfill the user needs.

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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 | Health AI Chat | Symptom-based Chat with AI |
|  |  | Natural language interaction with medical responses |
| FR-4 | Health Monitoring Dashboard | View vitals (Heart Rate, BP, Glucose, etc.) |
|  |  | Graph-based trend analysis |
| FR-5 | Disease Prediction | Input symptoms to get probable conditions |
|  |  | Use of AI model (IBM Granite/Hugging Face) |
| FR-6 | Patient History Management | Track previous predictions, chats, reports |
|  |  | Download or email history |
| FR-7 | Appointment Booking | Request slot with doctor based on symptoms |
|  |  | Confirmation & Reminder Notifications |
| FR-8 | Admin Portal | Manage users, permissions, view analytics |
|  |  | Configure AI thresholds and models |

**Non-functional Requirements:**

These define **how the system should perform** rather than specific behaviors. These ensure **quality, security, and scalability** of the Health AI system.

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| **NFR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | Usability | The interface must be easy to use for non-technical users (patients, doctors). |
| NFR-2 | Security | Secure login, data encryption, and role-based access control. |
| NFR-3 | Reliability | The system must provide consistent results and function correctly under load. |
| NFR-4 | Performance | Fast AI responses, minimal delay in chat, graphs, and predictions. |
| NFR-5 | Availability | 24/7 system availability with minimum downtime (< 1%). |
| NFR-6 | Scalability | Ability to handle increasing users and data without performance degradation. |