**Project Design Phase-II**

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

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| Date | 27 june 2025 |
| Team ID | LTVIP2025TMID31456 |
| Project Name | Health ai: Intelligent healthcare assistant using ibm granite |
| 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 | Health Query Handling | - Accept user symptom or health question  - Classify the query using IBM Granite  - Retrieve relevant medical knowledge  - Present user-friendly response |
| FR-4 | Personalized Health Insight | - Analyze user history & preferences  - Provide tailored suggestions (e.g., reminders, lifestyle tips)  - Update insights based on user feedbac |
| FR 5 | Multilingual Suppor | - Detect user language  - Respond in user's preferred language using IBM Granite multilingual capabilitie |
| FR 6 | Feedback and Learning Loo | - Capture user feedback on AI response quality  - Improve model via feedback-driven learning (fine-tuning with IBM Granite |

**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** | Interface should be intuitive, with a clean UI, accessible to users of all ages and backgrounds |
| NFR-2 | **Security** | Implement end-to-end encryption, secure authentication (OAuth 2.0), and role-based access controls. Ensure HIPAA compliance. |
| NFR-3 | **Reliability** | The system should consistently provide correct and up-to-date health responses with high accuracy. |
| NFR-4 | **Performance** | System must respond to queries within 2 seconds for 95% of requests |
| NFR-5 | **Availability** | 99.9% uptime with auto-recovery and failover strategies. |
| NFR-6 | **Scalability** | Able to support growing user base and queries using scalable cloud infrastructure (e.g., IBM Cloud with Kubernetes). |