Solution Requirements (Functional & Non-functional)

Date: 26 June 2025

Team ID: LTVIP2025TMID32047

Project Name: HealthAI: Intelligent Healthcare Assistant

Maximum Marks: 2 Marks

# Functional Requirements:

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
| --- | --- | --- |
| FR-1 | User Interaction | Patient Chat, Health Analytics |
| FR-2 | AI-based Assistance | Disease Prediction, Treatment Plan Generation |
| FR-3 | Data Visualization | Display of health metrics using interactive charts (Chart.js) |
| FR-4 | Session Management | Temporary stateful interactions using local memory/session data |

# Non-functional Requirements:

| FR No. | Non-Functional Requirement | Description |
| --- | --- | --- |
| NFR-1 | Usability | Clean and intuitive web SPA interface using HTML/CSS and fetch-based interaction. |
| NFR-2 | Security | API key handling via `.env` and secure access to IBM Watson services. |
| NFR-3 | Reliability | Stable and consistent FastAPI integration with IBM WatsonX Granite. |
| NFR-4 | Performance | Fast, async responses with minimal frontend and backend dependencies. |
| NFR-5 | Availability | Application runs locally; ready for cloud deployment (IBM Cloud or others). |
| NFR-6 | Scalability | Scalable via IBM Cloud Foundry, containers, or microservice architecture. |