**Project Design Phase**

**Solution Architecture**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID29210 |
| Project Name | **Health AI: Intelligent Healthcare Assistant Using IBM Granite** |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

Solution architecture is a structured discipline that connects business needs with technological execution. In the context of Health AI, it plays a crucial role in designing a comprehensive and intelligent healthcare system that delivers personalized medical services to users.

The health AI system is built upon a multi-layered architecture:

* **User Interface Layer:** Developed using Stream lit, this layer serves as the interaction point for users accessing Patient Chat, Disease Prediction, Treatment Plans, and Health Analytics modules.
* **Application Layer:** Handles core logic, module orchestration, and feature-specific functionalities written in Python.
* **Data Layer:** Stores structured patient information, health metrics, and dynamic session data.
* **AI Service Layer:** Powered by IBM Watson ML (Granite 13B Instruct v2), this layer provides intelligent processing, natural language understanding, and medical inference capabilities.

**Example - Solution Architecture Diagram:**

