**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID59552 |
| Project Name | HealthAI-Intelligent Healthcare  Assistant Using IBM Granite |
| Maximum Marks | 4 Marks |

**Technical Architecture – HealthAI**

HealthAI’s technical architecture is designed to provide intelligent, personalized, and accessible healthcare assistance using IBM’s AI capabilities. The architecture bridges the gap between healthcare user needs and AI-driven digital solutions by clearly defining modules, workflows, and technology integrations.

It follows principles of modular design, AI integration, secure backend logic, and interactive frontend experiences.

**References – Adapted for HealthAI**

1. **C4 Model – Software Architecture Visualization** Used as the base modeling approach to define different levels of

HealthAI’s architecture (context, container, component).

[🔗 https://c4model.com/](https://c4model.com/)

1. **IBM Order Processing System (Pandemic Reference)** Inspired HealthAI’s backend design by using modular components and AI-powered services similar to orderprocessing use cases.

[🔗 https://developer.ibm.com/patterns/onlineorderprocessing-system-during-pandemic/](https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/)

1. **IBM Cloud Architecture Center**

Provided best practices and patterns for integrating AI models and deploying cloud-based healthcare applications.

[🔗 https://www.ibm.com/cloud/architecture](https://www.ibm.com/cloud/architecture)

1. **AWS Architecture Best Practices**

Used as a comparative reference to validate HealthAI’s scalability, resilience, and service-based integration approach.

[🔗 https://aws.amazon.com/architecture](https://aws.amazon.com/architecture)

1. How to Draw Useful Technical Architecture Diagrams Guided the creation of simplified, functional diagrams for HealthAI's backend and AI data flow.

[🔗 https://medium.com/the-internal-startup/how-todrawuseful-technical-architecture-d](https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d)iagrams[-2d20c9fda90d](https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d)

