**Project Design Phase**

**Proposed Solution Template**

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| Date | 27 – June-2025 |
| Team ID | LTVIP2025TMID30749 |
| Project Name | HealthAI: Intelligent Healthcare Assistant Using IBM Granite |
| Maximum Marks | 2 Marks |

**Proposed Solution :**

| **S.No.** | **Parameter** | **Description** |
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| 1 | **Problem Statement (Problem to be solved)** | Access to accurate and timely healthcare information remains a challenge for many individuals due to high consultation costs, misinformation online, and lack of personalized insights. Patients often face confusion while interpreting health symptoms, managing chronic conditions, or tracking vital signs, which leads to delayed diagnosis and poor health decisions. |
| 2 | **Idea / Solution Description** | HealthAI is an AI-powered healthcare assistant built using IBM’s Granite-13b-instruct-v2 model. It offers four core features: (1) Patient Chat for health queries, (2) Disease Prediction using symptom analysis, (3) Personalized Treatment Plan Generation, and (4) a Health Analytics Dashboard that visualizes trends in vital signs. The application is built using Streamlit with AI integration for dynamic medical guidance and data insights. |
| 3 | **Novelty / Uniqueness** | HealthAI uniquely combines generative AI with medical prompting strategies to deliver context-aware responses, disease predictions, and personalized plans. It merges conversational AI with structured patient analytics and provides a seamless experience through an intuitive web interface. Unlike generic symptom checkers, it integrates patient profiles, trends, and predictive intelligence. |
| 4 | **Social Impact / Customer Satisfaction** | The platform empowers users to take control of their health by providing reliable, immediate, and customized medical assistance. It reduces dependence on in-person consultations for minor issues, improving healthcare accessibility. It also encourages preventive care by providing insights from personal health trends. This leads to higher patient awareness, satisfaction, and improved health outcomes. |
| 5 | **Business Model (Revenue Model)** | HealthAI can be offered via a subscription-based SaaS model for clinics, telemedicine providers, and wellness platforms. Potential revenue streams include enterprise licensing, branded customization for hospitals, integration with wearable health data, and freemium tiers for individuals with paid premium features like advanced analytics. |
| 6 | **Scalability of the Solution** | HealthAI is modular and scalable. Additional features like mental health screening, nutrition suggestions, or integration with IoT wearables can be added. It can support multilingual responses and adapt to local healthcare regulations. The backend can scale with cloud deployment, serving both individual users and enterprise-level clients across geographies. |