**IDEATION PHASE**

**2.1 Problem Statement**

Modern healthcare systems are often **overloaded**, resulting in **limited access to timely medical consultations** for non-emergency cases. Patients frequently rely on **unstructured online content**, which can be **misleading**, **confusing**, and **anxiety-inducing**. In rural or underdeveloped areas, the **lack of immediate medical support** further exacerbates these issues.

There is a pressing need for a **preliminary health assistant tool** that:

* Provides **personalized** and **reliable** symptom analysis.
* Offers **natural remedies** and **basic medical advice**.
* Supports **natural language interaction**, making it easy for all users to engage.

With the emergence of **Generative AI**, we now have the tools to build systems that not only understand user queries but can **generate intelligent and empathetic responses**, just like a real medical assistant. However, these systems must be **trustworthy**, **accurate**, and **explainable**, especially in the healthcare domain.

Thus, we aim to develop **HEALTH-AI**, a chat-based health assistant powered by the **IBM Granite 3.3 2B Instruct model**, capable of providing meaningful insights to users experiencing health issues, while making healthcare **accessible, conversational, and visual**.

**2.2 Empathy Map Canvas**

An **Empathy Map** helps understand the user’s mindset by answering: What does the user say, think, feel, and do?

📌 Below is the Empathy Map for a typical user of HEALTH-AI.

| **Quadrant** | **Description** |
| --- | --- |
| **SAYS** | “I have a cough and body ache.” “Is this something serious?” “I want home remedies first.” |
| **THINKS** | “I hope it’s nothing major.” “Doctors are expensive.” “Will AI give correct advice?” |
| **DOES** | Uses Google or YouTube to check symptoms. Ignores symptoms initially. Asks family or friends for help. |
| **FEELS** | Anxious, uncertain, helpless. Frustrated by conflicting information. Worried about misdiagnosis. |

**Key Insight:**  
Users want **quick, simple, and trustworthy health answers** from a tool that “talks” like a doctor but doesn’t feel intimidating. They are open to AI but hesitant unless it feels human and accurate.

**2.3 Brainstorming**

In this phase, we explored multiple ideas for addressing the healthcare-accessibility problem using Generative AI. The brainstorming involved the following thought process:

**🔍 Problem Areas Identified:**

* Overcrowded hospitals for minor ailments.
* Confusing or inaccurate health content on the web.
* No visualization of disease likelihood or treatment plans.
* Language barriers with official medical portals.

**💡 Potential Features Discussed:**

| **Idea** | **Feasibility** | **Notes** |
| --- | --- | --- |
| Symptom-to-Disease Chatbot | ✅ High | Core feature for interaction |
| Visual Output (Bar Charts) | ✅ High | Adds transparency to answers |
| Natural Remedy Suggestions | ✅ High | Increases trust & preference |
| Daily Health Tips | ⚠️ Medium | Optional feature |
| Emergency Alert Trigger | ⚠️ Low | Beyond scope for now |

**🔄 Final Brainstorm Outcome:**

* Use **IBM Granite 3.3 2B Instruct** for its capability to generate long, accurate responses.
* Make interaction fully **chat-based** for a conversational feel.
* **Visualize disease likelihood** to make predictions more understandable.
* Prioritize natural remedies before suggesting medical treatments.

🧠 We chose **simplicity + clarity + accuracy** as our guiding principles.

**📌 Summary of the Ideation Phase:**

* **User Need Identified:** People want AI that can explain medical concepts in a human way.
* **Empathy Applied:** We tailored the system to users' emotional states, habits, and fears.
* **Ideas Generated:** Focused on chat interaction, remedy explanation, and visual diagnosis aid.
* **Final Decision:** Build HEALTH-AI as a friendly AI assistant that can help users understand their symptoms, possible diseases, and treatments in a natural, visual, and information

Top of Form

Bottom of Form