

# Health AI Intellegent Health Care Assistant Using IBM Granite

## 1.Introduction

- Team Member:U.Chandrakala
- Team Member: M.Gopika
- Team Member: K.Dhanalakshmi
- Team Member:C.Dhivya

## Project Overview

This project is about creating an AI-powered healthcare assistant that helps patients and doctors by providing intelligent support such as:

Understanding health-related queries

Giving recommendations for symptoms

Assisting in medical data analysis

Offering personalized health guidance

Here, IBM Granite (Large Language Model) is used to process medical language, understand patient questions, and generate meaningful, safe, and accurate responses.

### ◆ Key Features

1. Symptom Checker – Patients can enter their symptoms in natural language, and the assistant suggests possible conditions or next steps.
2. Medical Information Retrieval – Provides accurate information about diseases, treatments, and medicines.
3. Doctor-Patient Assistant – Helps doctors quickly access summarized patient history, lab results, and medical research.
4. Chat-based Healthcare Support – Works like a chatbot where patients can ask doubts anytime.
5. Data Privacy & Security – Ensures that patient data is handled securely according to healthcare standards.

## ◆ Technology Stack

IBM Granite LLM → For natural language understanding & generation

Python / Flask or Node.js → Backend for integrating AI model

React / Angular → Frontend for user interface (chatbot, dashboard)

IBM Cloud / Watson APIs → For deployment and healthcare-specific services

Database (MongoDB / SQL) → To store patient records & conversations

## ◆ Workflow

1. User Input → Patient asks question (e.g., "I have fever and headache, what should I do?")

2. IBM Granite AI Processing → Understands the medical context and queries medical knowledge base.

3. Response Generation → Suggests possible conditions (like viral fever, flu) and recommends next steps (consult doctor, drink fluids, etc.).

4. Doctor Integration → For serious symptoms, it recommends contacting a doctor or hospital.

## ◆ Benefits

Saves time for both doctors & patients

Reduces burden on hospitals for minor queries

Provides 24/7 healthcare support

Uses advanced AI (Granite LLM) for accurate, human - like responses