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# IBM HACKATHON PROJECT

## AGENTIC AI HEALTH SYMPTOM CHECKER

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# OUTLINE

- Problem Statement
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- IBM Certifications

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# PROBLEM STATEMENT

Millions of people experience health symptoms daily but lack immediate access to reliable medical information or guidance.

Self-diagnosis through unverified online sources often leads to anxiety, misinformation, or delayed care.

There is a growing need for an intelligent, accessible, and safe system that can interpret symptoms, provide trusted health insights, and guide users toward timely and informed health actions all without replacing professional medical advice.

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# TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

# IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model

# WOW FACTORS

Proactively guides users with personalized health suggestions — not just a chatbot, but a smart advisor

- **Multilingual Support**

- Understands and responds in multiple languages to serve diverse user groups.

- **Powered by IBM Granite Foundation Model**

- Uses enterprise-level AI trained for safety, accuracy, and real-world language understanding.

- **Trusted Medical Knowledge**

- Sources verified data from WHO, CDC, MedlinePlus, and other official health portals.

- **Urgency Detection**

- Tells users when symptoms might need immediate medical attention — promoting early action.

- **Home Remedies & Prevention**

- Shares simple, natural remedies and tips for non-emergency health issues.

- **No Self-Diagnosis Risk**

- Avoids suggesting diseases or medicines; educates users instead of alarming them.

- **24/7 Instant Access**

- No waiting, no appointment — just immediate health guidance anytime, anywhere.

## END USERS

- **General Public**

Anyone experiencing mild or unclear health symptoms seeking reliable first-level guidance.

- **Parents & Caregivers**

Looking for symptom information and care tips for children or elderly family members.

- **Rural & Remote Population**

Areas with limited access to doctors or clinics; multilingual support can be a game-changer here.

- **Non-English Speakers**

Individuals who struggle with English-based health platforms and benefit from native language support.



- **Students & Youth**

For quick, educational health advice during common issues like seasonal flu or fatigue.


- **Travelers & Migrants**

In unfamiliar locations, needing quick symptom interpretation without access to a local doctor.

# RESULTS

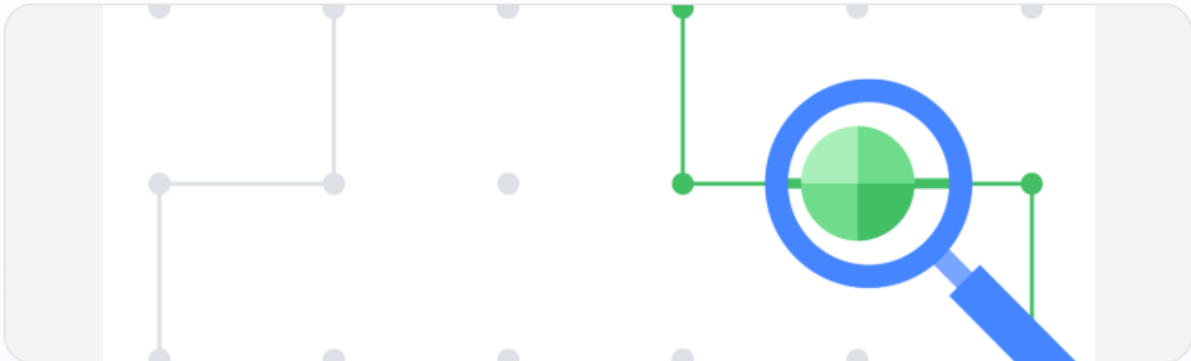
[Share feedback](#) β Unsaved  New agent + Deploy 



## Agent preview

 Health Symptom Checker 10:05 PM

### Welcome to Health Symptom Checker



I'm your AI Health Assistant — here to help you understand your symptoms and guide toward safe care




 




# RESULTS

[Share feedback](#) β Unsaved  New agent + Deploy 

## Agent preview

 You: 06:57 PM



I have sore throat and fever

 Health Symptom Checker 06:57 PM

Note: This AI provides general information and does not substitute for professional medical advice.

Based on your symptoms of a sore throat and fever, it is possible that you have a viral infection such as the common cold or flu. You may also be experiencing other symptoms such as a cough, runny or stuffy nose, muscle or body aches, headaches, and fatigue.

It is recommended that you gargle with saltwater, take acetaminophen or an anti-inflammatory medicine such as ibuprofen to control fever, and rest to help

# RESULTS

## Agent preview



You: 10:40 PM

I have stomach ache and vomiting



Health Symptom Checker 10:40 PM

Based on the search results, it appears that the user's symptoms of stomach ache and vomiting could be caused by a variety of factors, including:

- Viral gastroenteritis (stomach flu)
- Food poisoning
- Infections of the stomach or bowels
- Leaking of stomach contents (food or liquid) upward
- Motion sickness
- Pregnancy
- Migraines (headache nausea)

The user is advised to seek medical attention if their symptoms are severe, persistent, or accompanied by other concerning signs such as fever, blood in stool or vomit, or difficulty breathing.

It's important to note that this response is not a diagnosis and should not replace professional medical advice. The user should consult a healthcare provider for a proper evaluation and treatment plan.

Type something...



# RESULTS

watsonx Agent Deployed Online

reference

Test

Preview

New chat +

You 10:25 PM

i have pain in my throat

watsonx Agent 10:25 PM

Based on the search results, it appears that there are several treatments and remedies for a sore throat. Some of the most common recommendations include:

- Gargling with warm salt water
- Drinking soothing liquids, such as tea or broth
- Sucking on throat lozenges or hard candy
- Taking over-the-counter pain relievers, such as ibuprofen or paracetamol
- Resting and staying hydrated
- Using a humidifier to add moisture to the air

It's also important to note that if your sore throat is caused by a bacterial infection, such as strep throat, you may need to take antibiotics to clear up the infection. However, if your sore throat is caused by a viral infection, such as the common cold, antibiotics will not be effective and you may need to focus on relieving your symptoms with home remedies and over-the-counter medications.

Type something...

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## CONCLUSION

- The Agentic AI Health Symptom Checker bridges the gap between symptom awareness and professional care.
- It empowers users with safe, personalized, and multilingual health guidance using IBM Granite and trusted medical sources.
- By promoting early detection, reducing misinformation, and ensuring privacy, this solution offers a reliable first step in the healthcare journey.
- With its agentic behavior, 24/7 availability, and inclusive design, it has the potential to transform how people access health information globally.

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## GITHUB LINK

<https://github.com/riya843/Agentic-AI-Health-Symptom-Checker>

# FUTURE SCOPE

- **Integration with Telemedicine Platforms**

Directly connect users with certified doctors for live consultations.

- **Medication Reminder & Tracker Features**

Add functionality to remind users to take prescribed medications (after doctor consultation).

- **Personalized Health Insights Using Wearables**

Integrate with fitness bands or smartwatches for real-time health monitoring.

- **Chronic Disease Risk Prediction (AI-enhanced)**

Use symptom patterns to flag early risk of diabetes, hypertension, etc.

- **Offline Access for Rural Areas**

- Enable a lightweight version of the app that works with limited or no in

# IBM CERTIFICATIONS



IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Riya Singh

for the completion of

**Lab: Retrieval Augmented Generation with  
LangChain**

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

**Completion date:** 26 Jul 2025 (GMT)

**Learning hours:** 20 mins





**THANK YOU**