

IBM HACKATHON PROJECT

AGENTIC AI HEALTH SYMPTOM CHECKER

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OUTLINE

- Problem Statement
- Technology used
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- End users
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- Future Scope
- IBM Certifications

PROBLEM STATEMENT

An Agentic AI Health Symptom Checker helps users understand their health conditions by analyzing symptoms and providing probable causes, preventive advice, and care recommendations. It retrieves verified medical data, symptom databases, and guidelines from trusted sources like WHO, government health portals, and medical journals. Users can input symptoms in natural language such as “I have a sore throat and fever,” and the agent provides possible conditions, urgency level, home remedies, and when to consult a doctor. It supports multi-language interaction and avoids self-diagnosis risks by offering educational and referral-based suggestions. This AI-driven assistant promotes early detection, reduces misinformation, and empowers users to take informed health actions.

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

This agent will significantly reduce research time, improve the quality of literature reviews, help early-stage researchers find direction, and foster interdisciplinary collaboration by making knowledge more accessible and actionable.

Unique features:

Semantic search across research papers, journals, and datasets

Auto-summarization of selected papers

Citation and reference analysis to trace influence

Recommendation of research papers based on a user's current topic

Trend analysis over time for specific keywords or domains.

Collaboration mapping: suggests potential co-authors or institutions based on similar research interests

END USERS

- Academic Researchers
- Research Institutions and Universities
- Industry R&D Teams
- Educators
- Normal Public

RESULT

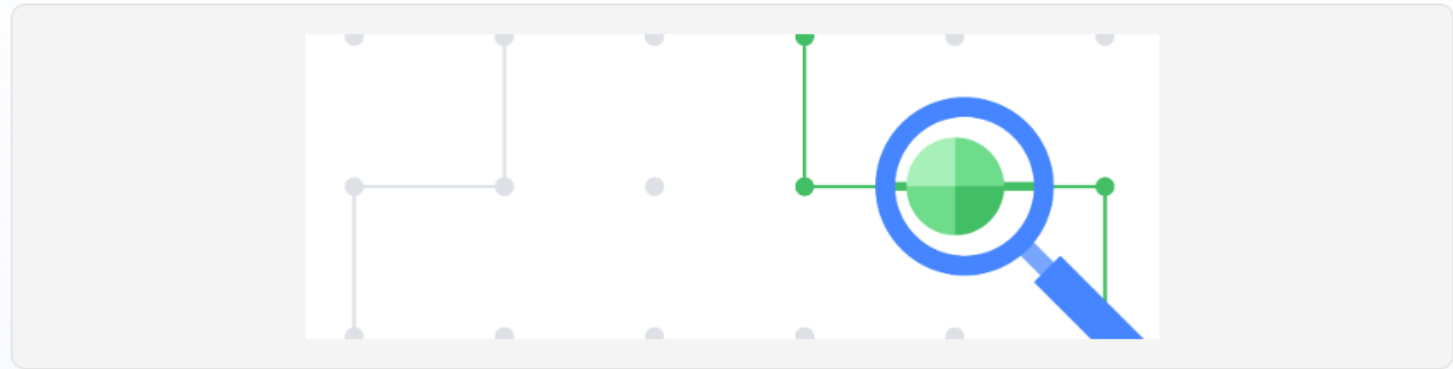
Preview



watsonx Agent 01:26 PM

Welcome to watsonx Agent

Change this description to reflect your particular agent



Type something...



RESULT



watsonx Agent 01:31 PM

Based on the search results, it appears that the user's symptoms of nausea and sore throat could be related to a variety of conditions, including strep throat, esophagitis, or a viral infection. The user may want to try some home remedies such as gargling with warm salt water, drinking hot tea with lemon, or taking over-the-counter medications to relieve pain or itchiness. It's also important for the user to consult with a healthcare professional for proper diagnosis and treatment.

Some possible treatments or remedies that the user could consider include:

- Gargling with warm salt water
- Drinking hot tea with lemon
- Taking over-the-counter medications such as pain relievers or antacids
- Trying throat lozenges or sprays that contain numbing agents or cooling ingredients
- Increasing fluids and resting to help the body recover from illness

It's always best to consult with a healthcare professional for proper diagnosis and treatment, especially if the user's symptoms persist or worsen over time.

RESULT

Preview



You 01:29 PM

I'm getting headache and stomach pain



watsonx Agent 01:29 PM


Based on the search results, it appears that there are several possible causes of headache and stomach pain. Some common causes include:



- Abdominal migraine: a condition that causes episodes of stomach pain, nausea, and vomiting, often accompanied by a headache
- Migraines: a type of headache disorder that can cause stomach pain, nausea, and vomiting
- Gastroenteritis: an infection of the stomach and intestines that can cause stomach pain, diarrhea, and vomiting
- Food intolerance: an adverse reaction to certain foods that can cause stomach pain, diarrhea, and vomiting
- Salmonella infection: a type of bacterial infection that can cause stomach pain, diarrhea, and vomiting
- Urinary tract infection (UTI): an infection of the urinary tract that can cause stomach pain, burning during urination, and frequent urination

It's important to note that these are just a few possible causes, and it's always best to consult with a healthcare professional for an accurate diagnosis and treatment plan. They can help determine the underlying cause of your symptoms and provide appropriate treatment.


RESULT

DEPLOYED AI AGENT


 IBM watsonx

UpgradeSITU SAW's Account

[Deployment spaces](#) / [Symptom_Checker_Agent](#) / [watsonx Agent](#) /

watsonx Agent  Deployed Online

API referenceTestPreview


 watsonx Agent 01:34 PM


The search results provide various possible causes of lower limb pain, including:

- Diabetes
- Dehydration or low amounts of potassium, sodium, calcium, or magnesium in the blood
- Medicines (such as diuretics and statins)
- Muscle fatigue or strain
- Injuries (such as muscle strains, shin splints, or trauma)
- Underlying conditions (such as peripheral artery disease, degenerative joint diseases, or complex regional pain syndrome)

It is recommended to consult a healthcare professional for a proper diagnosis and treatment plan.

► How did I get this answer?



Type something... 

CONCLUSION

- The agent can generate results, suggest solutions and remedies.
- It saves time by automating repetitive tasks like viewing past reports of patients and data extraction.
- Research Agents enhance efficiency, accuracy, and innovation in both academic, industrial R&D and in medical field.

FUTURE SCOPE

- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features in Medical Industry
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- AI-Assisted Medical Diagnosis

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Situ Saw

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



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Journey to Cloud: Envisioning Your Solution

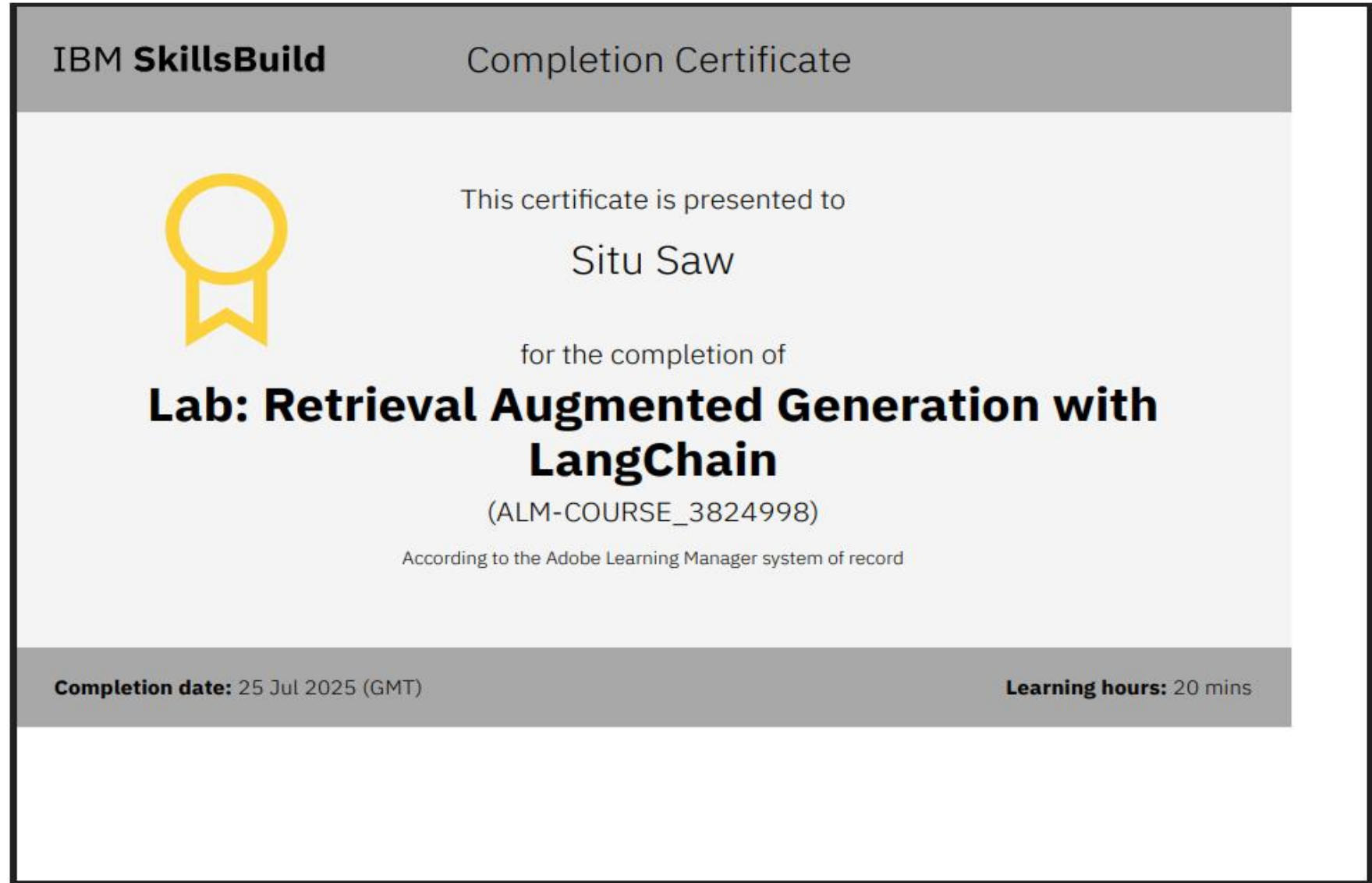


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IBM CERTIFICATIONS



GITHUB LINK

- https://github.com/Anbhavsaw/Symptom_Checker-AI-Agent/tree/main



THANK YOU