
IBM AICTE PROJECT

AI AGENT FOR CHRONIC DISEASE MONITORING

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OUTLINE

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PROBLEM STATEMENT

Managing chronic diseases like diabetes, hypertension, and heart conditions is challenging due to poor real-time monitoring, low treatment adherence, and delayed medical interventions.

Proposed Solution:

An AI agent built on IBM Cloud Lite and IBM Granite to analyze data from wearables, medical records, and patient inputs, providing real-time alerts, personalized insights, medication reminders, and lifestyle recommendations for better chronic care management.

TECHNOLOGY USED

- IBM cloud lite services
- Natural Language Processing (NLP)
- Retrieval Augmented Generation (RAG)
- IBM Granite model
- Watson Assistant
- IBM Cloudant / Object Storage

IBM CLOUD SERVICES USED

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

WOW FACTORS

- **Keeps track of your health in real-time** – Monitors data like BP, sugar, and heart rate all the time.
- **Warns you early** – Sends alerts if something looks wrong in your health readings.
- **Gives personal advice** – Suggests simple lifestyle tips and reminds you to take medicines on time.
- **Smart predictions** – Uses AI to guess health risks before they become serious.
- **Works on the cloud** – Runs on IBM Cloud, so it's easy to access from anywhere.
- **Personalized Insights**-Provides lifestyle recommendations and medication reminders tailored to each patient.
- **Bridges Patients & Providers**- Enables remote health tracking and proactive care, reducing hospital visits.

END USERS

- Patients
- Doctors & Healthcare Providers
- Caregivers & Family Members
- Clinics & Hospitals

RESULTS

Agent preview



You: 05:57 PM

I have 150 diabetics what should i do



chronic_agent 05:57 PM

I'm sorry, but your message seems to contain a typo. If you're asking about what to do with a blood sugar level of 150 mg/dL, here's some general advice:

A blood sugar level of 150 mg/dL is considered higher than the normal range (less than 100 mg/dL after fasting), but it's not yet in the diabetic range (which is typically 200 mg/dL or higher). This reading suggests that your blood sugar is elevated, which could be a sign of hyperglycemia (high blood sugar).

Here are some steps you might consider:

1. Check your blood sugar again in a couple of hours to see if it's coming down.
2. If it's not, or if you're experiencing symptoms like increased thirst, frequent urination, blurred vision, or fatigue, you should consider taking

Type something...



RESULTS

Deployed AI Agent

chronic_agent  Deployed Online

API reference

Test

Preview

[New chat](#) +



You 05:26 PM

I am 55 years old, my blood pressure is 160/100, glucose is 180, and cholesterol is 250. What does this mean and what should I do?



chronic_agent 05:26 PM

I'm an AI and not a doctor, but I can provide some general information based on the data you've given.

Your blood pressure reading of 160/100 indicates stage 2 hypertension, which is considered high and can increase the risk of heart disease, stroke, and kidney problems if not managed.

Your glucose level of 180 mg/dL suggests hyperglycemia, which is a sign of uncontrolled diabetes. Consistently high blood glucose levels over time can lead to serious health complications, including heart disease, kidney damage, and nerve damage.

Type something...



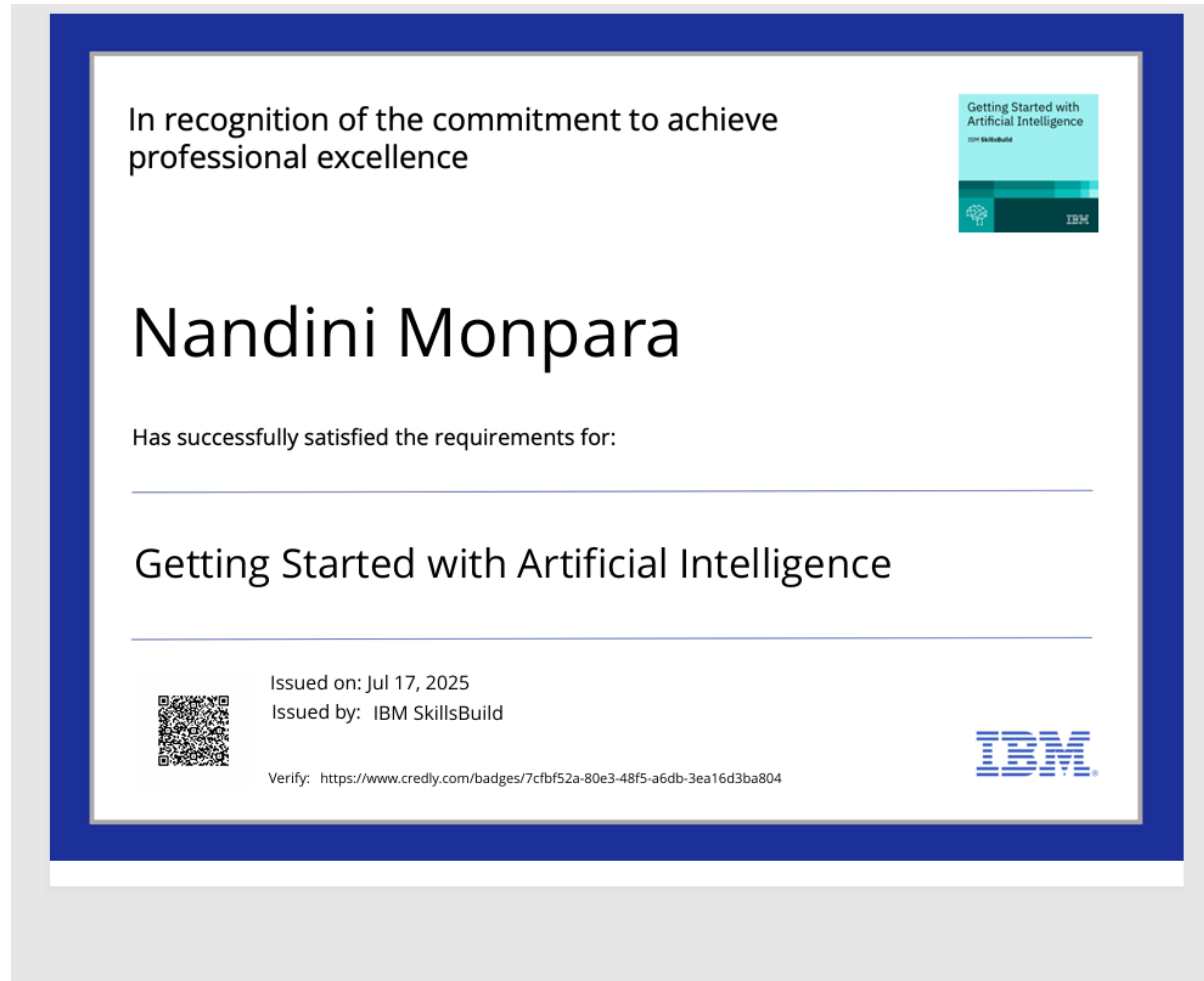
CONCLUSION

- **Helps in managing chronic diseases better** – Makes it easier for patients to track their health daily.
- **Improves patient safety** – Detects early warning signs and alerts patients/doctors in time.
- **Encourages healthy habits** – Provides personalized advice and reminders for lifestyle changes.
- **Bridges the gap between patients and doctors** – Enables remote monitoring and reduces unnecessary hospital visits.
- **Uses modern AI and cloud technology** – Ensures accurate predictions and easy access to health data.

FUTURE SCOPE

- Add monitoring for more chronic diseases.
- Connect with advanced wearable devices.
- Improve AI for better health predictions.
- Develop a mobile app for easy access.
- Add multilingual communication support.
- Integrate with hospital health record systems.

IBM CERTIFICATIONS



IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Nandini Monpara

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT)

Learning hours: 20 mins

GIT HUB LINK-

- [NandiniMonpara/AI-agent-Chronic-Disease-Monitoring](#)



THANK YOU