
CAPSTONE PROJECT

AI Agent for Digital Financial Literacy

Presented By:

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OUTLINE :

- Y Problem Statement (Should not include solution)
- Y Proposed System/Solution
- Y System Development Approach (Technology Used)
- Y Algorithm & Deployment
- Y Result (Output Image)
- Y Conclusion
- Y Future Scope
- Y References

PROBLEM STATEMENT

An AI Agent for Digital Financial Literacy, powered by RAG (Retrieval-Augmented Generation), helps users understand and navigate essential financial tools and practices. It retrieves reliable content on using UPI, avoiding online scams, understanding interest rates, budgeting, and personal finance management from government portals, banking websites, and educational platforms.

With multilingual support, users from diverse backgrounds can interact in their preferred language and ask questions like "How do I send money via UPI?" or "What is a safe interest rate for a loan?" The agent ensures financial literacy is accessible, personalized, and culturally inclusive. This AI-driven assistant empowers users with knowledge, protects them from fraud, and builds confidence in digital finance.

PROPOSED SOLUTION

- Y The proposed system aims to improve financial awareness by deploying an AI-based chatbot that can answer common queries in simple language. The solution includes the following components:
- Y **Data collection:**
 - Y Gather frequently asked financial questions related to UPI, EMI, budgeting, fraud safety, etc
 - Y Use real-time updates (optional) like current financial terms or schemes if needed.
- Y **Content Preparation :**
 - Y Prepare easy-to-understand responses for each topic.
 - Y Ensure the content is user-friendly and suitable for all audiences
- Y **Chatbot Design (Watson Assistant):**
 - Y Create intents for each financial topic (e.g., UPI, fraud alert, EMI).
 - Y Add sample user queries and define proper responses using actions.
- Y **Deployment:**
 - Y Deploy the bot on IBM Cloud Lite using Watson Assistant's preview or embed option.
 - Y Ensure basic integration with a web interface or as a standalone demo.
- Y **Evaluation:**
 - Y Test with sample questions and record responses.
 - Y Ensure basic integration with a web interface or as a standalone demo.

Y – Result:

Finance literacy Agent

hey

12:28 AM

Hey, I am Prashant , How can i help you ?

Select an option

- saving account
- open bank account
- digital frauds
- protect from online scams
- loan?
- how to send money via UPI?

Type something...

Built with IBM watsonx ⓘ

Finance literacy Agent

You 12:19 AM

Hey

12:19 AM

Hey, I am Prashant , How can i help you ?

You 12:19 AM

what is loan

12:19 AM

A loan is borrowed money that you need to repay over time, usually with interest.

Type something...

Built with IBM watsonx ⓘ

Finance literacy Agent

12:21 AM

what are digital frauds

12:21 AM

Digital fraud includes scams like fake UPI payment requests, phishing messages, and fraud calls pretending to be from banks. Never share your OTP or banking passwords with anyone.

You 12:21 AM

how to avoid frauds

12:21 AM

Never share your OTP, passwords, or bank details with anyone. Only use trusted app and websites.

Type something...

Built with IBM watsonx ⓘ

SYSTEM APPROACH

The "System approach" section outlines the overall strategy and methodology for developing and implementing the rental bike prediction system. Here's a suggested structure for this section :

Y Technology Stack:

- Y IBM Watsonx Assistant (Lite plan)
- Y IBM Cloud Lite Services
- Y RAG (Retrieval-Augmented Generation) principle

Y Tools Used:

- Y Watson Assistant GUI for bot building
- Y Predefined and custom intents & actions
- Y Preview & Live Assistant features

Y Libraries (if integrated with external APIs):

- Y IBM Watson SDK (optional)
- Y Node.js/Python (optional for web integration)

ALGORITHM & DEPLOYMENT

Y : Intent Recognition & Response Mapping:

Y : Each user question is mapped to an intent using Watson Assistant's NLP model.

Y : Predefined responses are created for each intent using Actions in Watson Assistant.

Y : Training:

Y : The bot is trained using multiple example phrases per intent (e.g., "Send money", "Check balance", "Avoid scam").

Y : Deployment:

Y : The chatbot is hosted on IBM Cloud and can be embedded in websites.

Y : Outputs are previewed and tested through Watson Assistant's "Test" interface ■

RESULT

Y : The assistant was tested using over 20 common financial questions such as:

Y : “What is EMI?”

Y : “How to open a bank account?”

Y : “What is a credit score?”

Y : “How can I avoid digital fraud?”

Responses were accurate, easy to understand, and instant.

Y : Screenshot proof from the chatbot's preview window has been taken and included in the project output. The assistant shows strong performance even in free-tier deployment, with fast response.

eu-gb.assistant.watson.cloud.ibm.com/cm%3Av1%3Abluemix%3Apublic%3Aconversation%3Aeu-gb%3Aa%2F45b697dc9a4341fab5...

IBM watsonx Assistant Lite Upgrade Finance Literac... Learning resources ?

Preview assistant Copy link to share Change layout Change background Customize web chat

Sample website

Finance literacy Agent

You 12:19 AM
Hey

12:19 AM
Hey, I am Prashant , How can i help you ?

You 12:19 AM
what is loan

12:19 AM
A loan is borrowed money that you need to repay over time, usually with interest.

Type something...

Built with IBM watsonx

eu-gb.assistant.watson.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Aconversation%3Aeu-gb%3Aa%2F45b697dc9a4341fab5...

IBM watsonx Assistant Lite Upgrade Finance Literac... Learning resources

Preview assistant

Copy link to share Change layout Change background Customize web chat

Sample website

Finance literacy Agent

what is interest rate

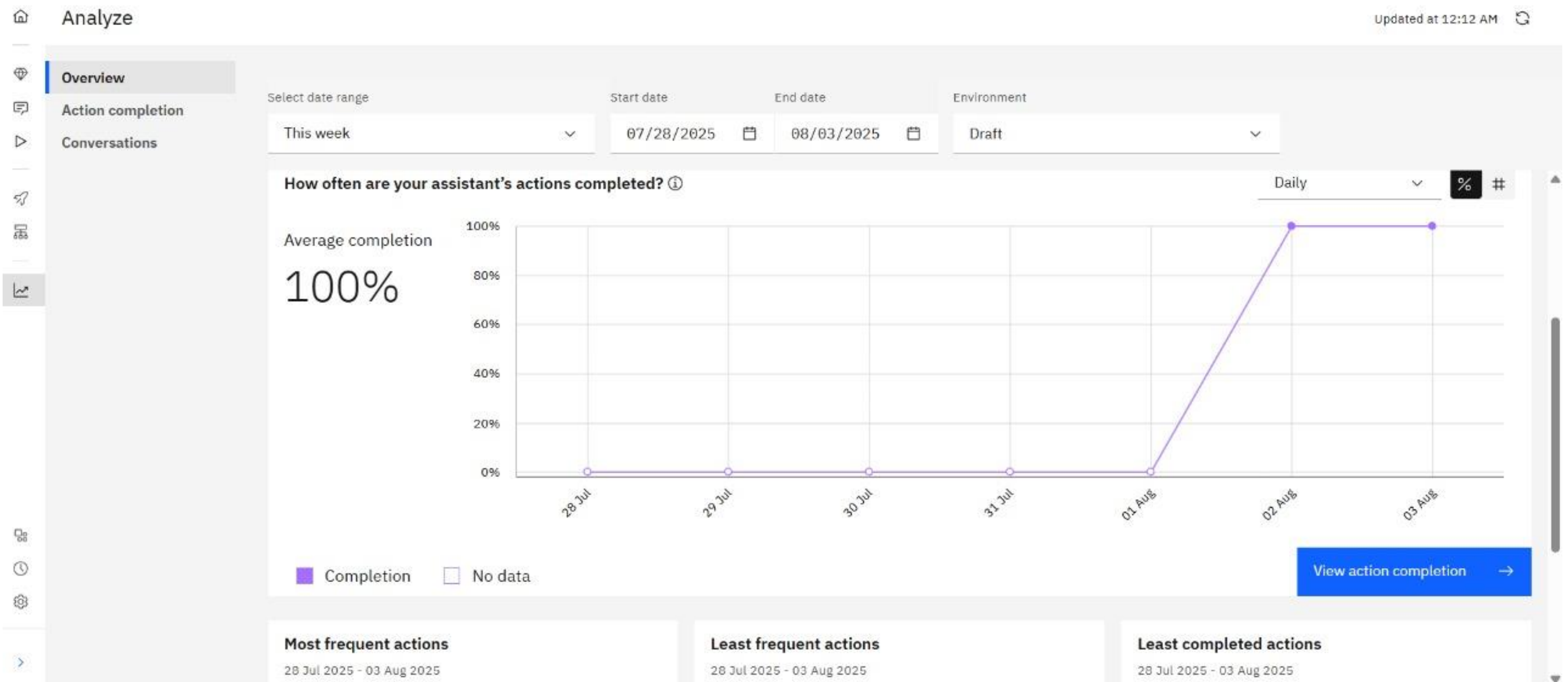
12:22 AM
Interest rate is the percentage charged by a lender on the borrowed amount. For savings, it's the rate your bank pays you for keeping money with them.

You 12:22 AM
what is loan

12:22 AM
A loan is borrowed money that you need to repay over time, usually with interest.

Type something...

Built with IBM watsonx



CONCLUSION

Y: This project proves that an AI-powered assistant can play a major role in simplifying and spreading financial awareness among users. By using IBM Watson Assistant and deploying it through IBM Cloud, the need for coding and infrastructure was minimized, while the educational impact remained significant.

The bot not only reduces dependency on human financial educators but also empowers users to learn and act independently. It enhances digital trust and supports India's goal of digital and financial inclusion.

■

FUTURE SCOPE

- Y : Voice Interface Support: Add speech-to-text and text-to-speech features to assist users who cannot read/write.
- Y : Multilingual Support: Extend the bot to regional languages like Hindi, Bengali, Tamil, etc.
- Y : Dynamic Knowledge: Connect the assistant with APIs to fetch real-time loan rates, government schemes, or alerts.
- Y : Social Media Deployment: Integrate the assistant with platforms like WhatsApp, Telegram, Facebook Messenger.
- Y : Smart UI: Build mobile or web apps to host the assistant with beautiful UI and onboarding help.

REFERENCES

Y : IBM Watson Assistant Documentation – <https://cloud.ibm.com/docs/watson-assistant>

Y : National Payments Corporation of India – <https://www.npci.org.in>

Y : RBI Guidelines – <https://www.rbi.org.in>

Y : Government Schemes on Financial Awareness

Y : IBM SkillsBuild Capstone Resources

IBM CERTIFICATIONS (Getting started with AI)



IBM CERTIFICATIONS (Journey to Cloud: Envisioning Your Solution)

In recognition of the commitment to achieve
professional excellence



Prashant Tiwari

Has successfully satisfied the requirements for:

Journey to Cloud: Envisioning Your Solution



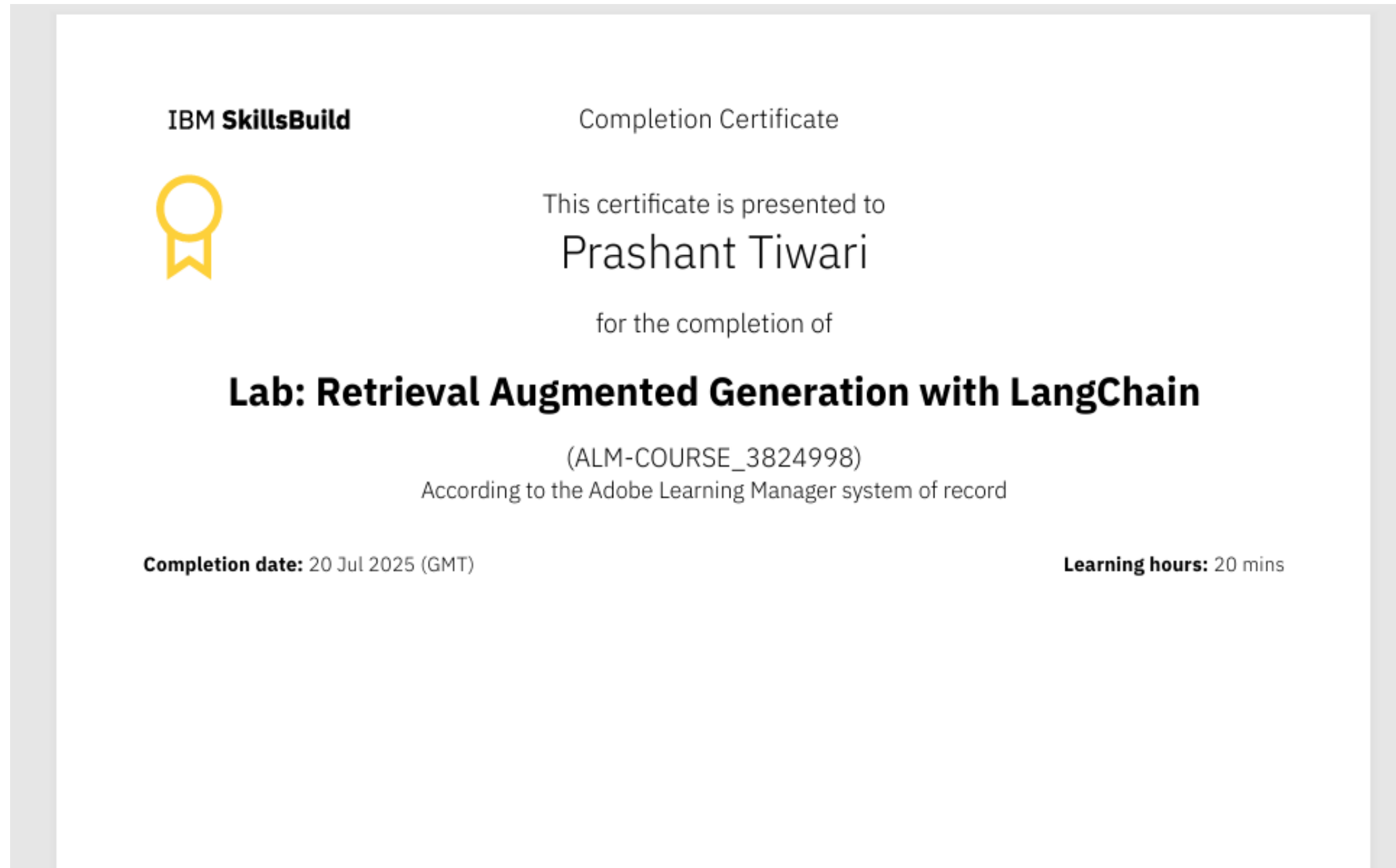
Issued on: Jul 20, 2025

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Verify: <https://www.credly.com/badges/778ae2fb-119b-4914-9832-1aff911944ce>



IBM CERTIFICATIONS (Lab: Retrieval Augmented Generation with Lang Chain)





THANK YOU