#### **CAPSTONE PROJECT**

# AIAGENT FOR DIGITAL FINANCIAL LITERACY

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## **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.



# 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
- IBM Cloud Storage Bucket



# **Wow factors**

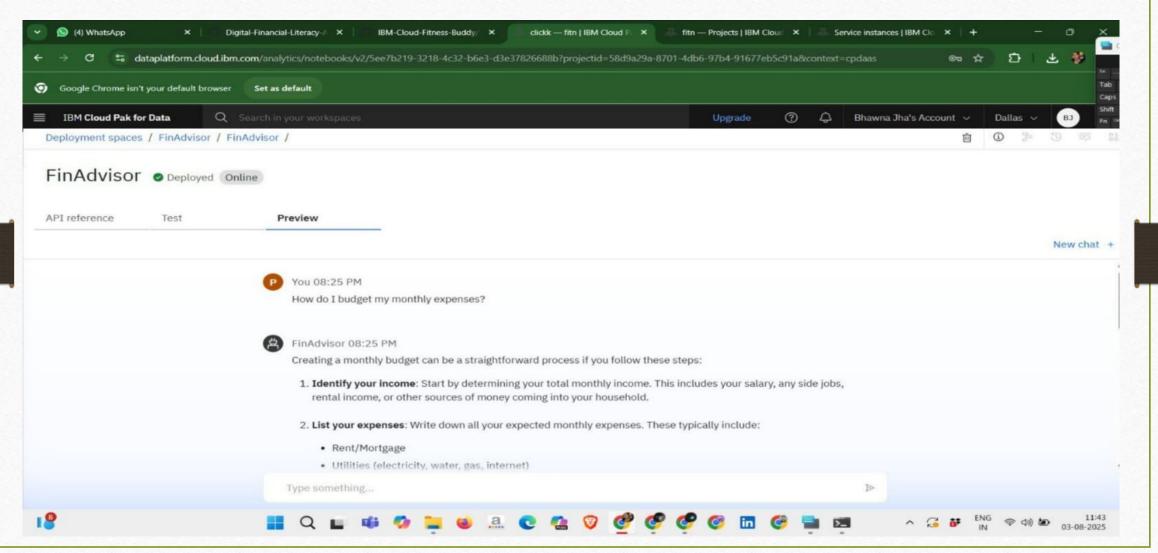
An AI Agent for Digital Financial Literacy delivers a transformative experience by offering hyper-personalized learning paths tailored to each user's financial knowledge, age, and goals. It features real-time simulations, gamified learning, and fraud detection training to make financial concepts practical and engaging. With support for regional languages, voice interaction, and an "Explain Like I'm 5" mode, it ensures accessibility for all age and literacy levels. The agent integrates with real financial tools, provides emotion-aware guidance, works offline for rural inclusion, and even acts as a smart co-pilot for real-life financial decisions — making it a powerful, inclusive, and intelligent financial mentor.



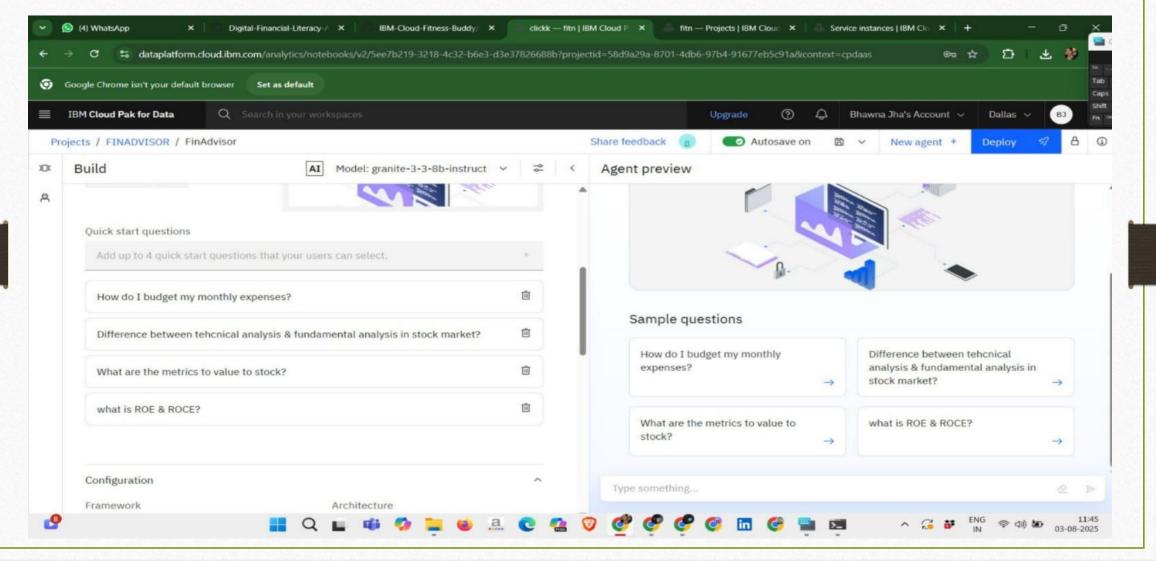
#### End users

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

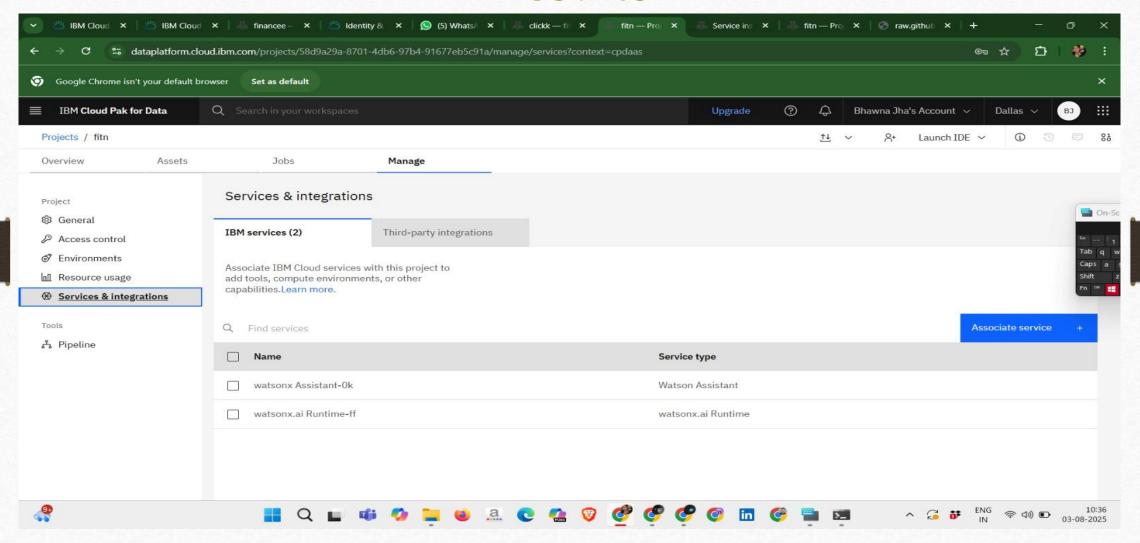




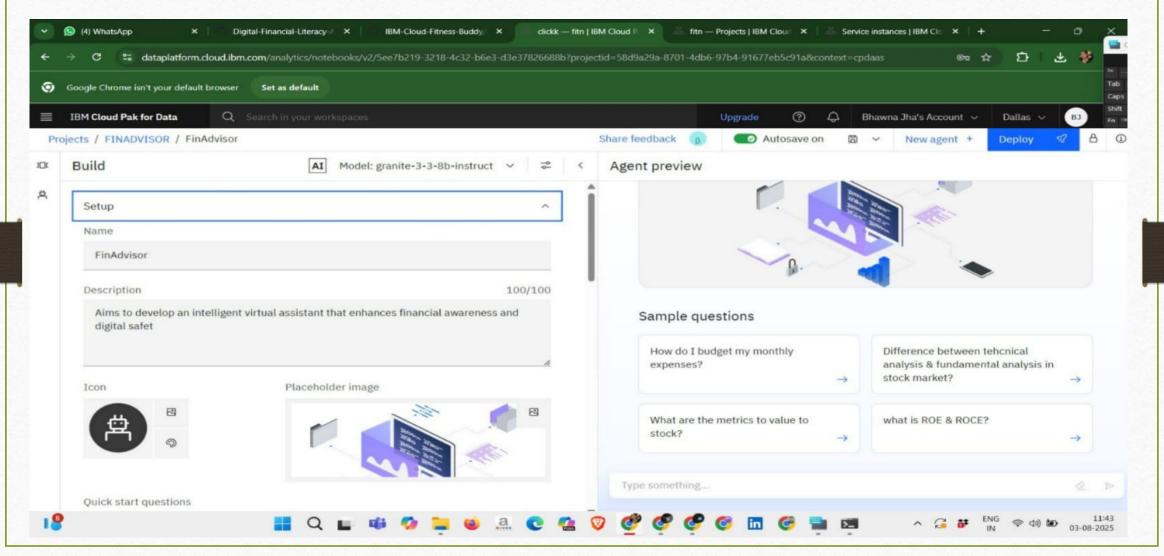














#### Results (4) WhatsApp Digital-Financial-Literacy-// X IBM-Cloud-Fitness-Buddy/ × fitn — Projects | IBM Cloud × Service instances | IBM Clo × + clickk - fitn | IBM Cloud P. X dataplatform.cloud.ibm.com/analytics/notebooks/v2/5ee7b219-3218-4c32-b6e3-d3e37826688b?projectid=58d9a29a-8701-4db6-97b4-91677eb5c91a&context=cpdaas Google Chrome isn't your default browser IBM Cloud Pak for Data Q Search in your workspaces Upgrade Bhawna Jha's Account ~ Dallas v Projects / FINADVISOR / FinAdvisor Share feedback B Autosave on Deploy New agent + Agent preview Build Added tools (5) what is ROE & ROCE? ,02, Google search FinAdvisor 08:25 PM Retrieve information from the internet with the Google search engine. ROE (Return on Equity) and ROCE (Return on Capital Employed) are financial metrics used to assess a company's profitability and efficiency. DuckDuckGo search Return on Equity (ROE): Retrieve information from the internet with the DuckDuckGo search engine. · ROE measures how efficiently a company uses shareholders' equity to generate profit. · It's calculated by dividing net income by shareholder equity. Wikipedia search . Formula: ROE = Net Income / Shareholder Equity · A higher ROE indicates that a company is more efficient in utilizing its shareholders' Retrieve information from Wikipedia articles. investment to generate profits. Return on Capital Employed (ROCE): Webcrawler . ROCE measures a company's profitability in relation to the capital used by the Retrieve information from a website. Weather Retrieve the weather of a city. Type something... 0 18



#### Conclusion

• The AI Agent for Digital Financial Literacy is a powerful step toward building a financially aware and empowered society. By combining personalization, accessibility, real-world integration, and interactive learning, it bridges the gap between complex financial concepts and everyday understanding. It not only educates but also equips individuals with the confidence and skills to make smart, secure, and informed financial decisions in the digital age.



#### **FUTURE SCOPE**

- •Voice and Local Language Support Makes financial learning easy for everyone.
- •Real-Time Financial Advice Acts as a smart advisor for daily money decisions.
- •Fraud Detection Alerts Warns users about scams and risky actions.
- •Integration with Govt Schemes Helps users access benefits and subsidies.
- Offline Access Works even in low-internet rural areas.



#### IBM Certifications

Screenshot/ credly certificate( getting started with AI)

In recognition of the commitment to achieve professional excellence



#### Bhawna Jha

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 16, 2025 Issued by: IBM SkillsBuild

Verify: https://www.credly.com/badges/4b76b6e2-89b8-48ee-be8c-5e08158be07e





#### IBM Certifications

Screenshot/ certificate(RAG LAB)

7/27/25, 12:26 AM

Completion Certificate | SkillsBuild

IBM SkillsBuild

Completion Certificate



This certificate is presented to

Bhawna Jha

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

Completion date: 17 Jul 2025 (GMT)

Learning hours: 20 mins



#### IBM Certifications

Screenshot/ credly certificate(Envisioning Your Solution)

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#### Bhawna Jha

Has successfully satisfied the requirements for:

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# GitHub Link

Git hub link: https://github.com/bhawna31/digitalFinanceLiteracy.git





