AICTE IBM SKILLS BUILD PROJECT AI AGENT FOR DIGITAL FINANCIAL LITERACY

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PROBLEM STATEMENT

Today, many people—especially in rural or digitally underserved areas—face real challenges when it comes to understanding and using digital financial tools. Simple things like sending money via UPI, recognizing online scams, or even creating a basic budget can be confusing.

This lack of clarity leads to mistakes, missed opportunities, or even financial fraud.

That's where our idea comes in: a smart, Al-powered assistant that guides users safely through the world of digital finance—clearly, simply, and in the language they're most comfortable with.



TECHNOLOGY USED

- Watsonx.ai Studio for creating and fine-tuning our Al model
- IBM Cloud Lite for a secure, cloud-based setup
- IBM Granite (LLM) to understand and respond in natural, everyday language
- Vector Index with RAG to find the most accurate answers from trusted PDFs
- PDFs from RBI, NPCI, and educational sources to ensure reliable information
- Natural Language Processing (NLP) for handling questions across different languages



IBM CLOUD SERVICES USED

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



WOW FACTORS

- It pulls real answers from official, trustworthy sources like RBI and NPCI
- Users can chat in their preferred language—no need to speak perfect English
- It gracefully redirects if someone asks an off-topic question
- It helps people make better decisions on real-world topics like budgeting, scams, or interest rates
- It's inclusive—designed for first-time users, rural communities, and anyone new to digital finance
- It can even run inside WhatsApp or a mobile app for on-the-go support

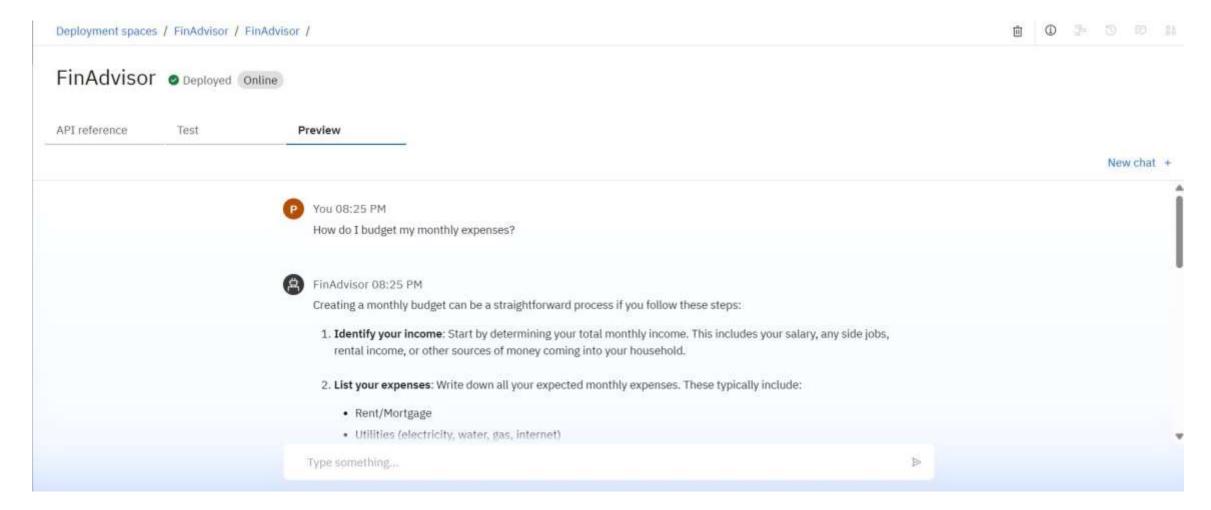


END USERS

- People in rural or semi-urban areas who are just getting started with digital banking
- First-time UPI users who want safe and simple guidance
- Students and young professionals who want to understand money early
- Women's groups and SHGs working towards financial independence
- NGOs and outreach teams spreading awareness on digital safety
- Teachers, schools, and colleges promoting financial literacy
- Customer support teams helping others make smart financial choices



RESULTS





RESULTS

what is ROE & ROCE?



ROE (Return on Equity) and ROCE (Return on Capital Employed) are financial metrics used to assess a company's profitability and efficiency.

Return on Equity (ROE):

- . ROE measures how efficiently a company uses shareholders' equity to generate profit.
- . It's calculated by dividing net income by shareholder equity.
- . Formula: ROE = Net Income / Shareholder Equity
- A higher ROE indicates that a company is more efficient in utilizing its shareholders' investment to generate profits.

Return on Capital Employed (ROCE):

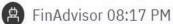
. ROCE measures a company's profitability in relation to the capital used by the

Type something...





How do I know if a stock is overpriced or undervalued?



Determining if a stock is overpriced or undervalued involves analyzing its financials and comparing them to its market price. Here are some steps you can follow:

Price-to-Earnings (P/E) Ratio: This ratio compares a company's stock price
to its earnings per share (EPS). A high P/E ratio might suggest the stock is
overpriced, while a low P/E ratio could indicate it's undervalued. However,
this should be considered alongside other ratios.

Type something...







RESULTS

We've successfully created an AI assistant that:

- Understands real questions in natural language
- Gives back helpful, trustworthy answers from official PDFs
- Supports multiple languages and responds politely when unsure
- Is tested, working, and ready to help users become more confident with money online



CONCLUSION

Digital finance should feel easy, safe, and empowering—not overwhelming.

With this assistant, we're making that possible.

 It helps people ask questions, get answers, avoid scams, and make smarter financial choices—all with zero jargon and total clarity.

Whether it's a student, a farmer, or a homemaker, anyone can now feel confident navigating digital finance.



FUTURE SCOPE

- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- Al-Assisted Paper Drafting



GITHUB LINK

GITHUB LINK : https://github.com/ChDeekshith14/IBM-SKILL-BUILD-Digital-Financial-Literacy-Al-agent



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Completion Certificate



This certificate is presented to

Deekshith Chedurupally

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



THANK YOU

