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# **AICTE IBM SKILLS BUILD PROJECT**

## **AI AGENT FOR DIGITAL FINANCIAL LITERACY**

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# OUTLINE

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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, AI-powered assistant that guides users safely through the world of digital finance—clearly, simply, and in the language they're most comfortable with.

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# TECHNOLOGY USED

- **Watsonx.ai Studio** for creating and fine-tuning our AI 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

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# IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI 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

Deployment spaces / FinAdvisor / FinAdvisor /

FinAdvisor ✓ Deployed Online

API reference Test **Preview**

New chat +

**P** You 08:25 PM  
How do I budget my monthly expenses?

**FinAdvisor** 08:25 PM  
Creating a monthly budget can be a straightforward process if you follow these steps:

- 1. Identify your income:** Start by determining your total monthly income. This includes your salary, any side jobs, rental income, or other sources of money coming into your household.
- 2. List your expenses:** Write down all your expected monthly expenses. These typically include:
  - Rent/Mortgage
  - Utilities (electricity, water, gas, internet)

Type something...



# RESULTS

what is ROE & ROCE?

 FinAdvisor 08:25 PM

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:  $ROE = \text{Net Income} / \text{Shareholder Equity}$
- 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?

 FinAdvisor 08:17 PM

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:

1. **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

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# 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
- AI-Assisted Paper Drafting

# GITHUB LINK

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

# IBM CERTIFICATIONS

In recognition of the commitment to achieve  
professional excellence



## Deekshith Chedurupally

Has successfully satisfied the requirements for:

### Getting Started with Artificial Intelligence



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IBM **SkillsBuild**

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