
IBM AICTE PROJECT

AI AGENT FOR DIGITAL FINANCIAL LITERACY

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OUTLINE

- Problem Statement
- Technology used
- Wow factor
- End users
- Result
- Conclusion
- Git-hub Link
- Future scope
- IBM Certifications

PROBLEM STATEMENT

- Many individuals, especially from rural or less digitally aware communities, face challenges in understanding digital financial tools such as UPI, online banking, loan procedures, or scam prevention. Lack of awareness leads to financial mismanagement, fraud risks, and exclusion from government schemes.

Proposed Solution:

- An **AI-powered Financial Literacy Agent** using **Natural Language Processing (NLP)** and **Retrieval-Augmented Generation (RAG)** to educate users on essential financial topics. The assistant provides clear guidance on digital transactions, budgeting, loans, and scam prevention — all with multilingual support and reliable responses sourced from government portals and financial institutions.

TECHNOLOGY USED

- IBM cloud lite services
- IBM Watsonx.ai Studio
- IBM Granite Foundation Model (LLM)
- Natural Language Processing (NLP)
- Vector Index (Watsonx.ai)
- Retrieval Augmented Generation (RAG)

IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model
- IBM Cloud Object Storage
- IBM Cloud IAM (Identity and Access Management)

WOW FACTORS

- This AI agent aims to empower users with accurate, accessible, and personalized financial knowledge.
- It will reduce misinformation, help users make better money decisions, and increase trust in digital financial systems.
- The solution is especially impactful for underserved communities and first-time digital users.
- **Unique features:**
 - Retrieval-based answers from trusted sources like RBI and NPCI
 - Natural Language Processing (NLP) for understanding diverse user queries
 - Document-based responses using a Vector Index (RAG implementation)
 - Safe handling of off-topic or unrelated questions
 - Designed for multilingual interaction to reach regional users
 - Covers essential topics like UPI, online scams, loans, budgeting, and savings

END USERS

- General Public
- First-time Digital Users
- Elderly Citizens
- Students and Young Adults
- NGOs and Government Outreach Programs
- Self-Help Groups / Women's Collectives
- Educators / Institutions
- Microfinance Beneficiaries

RESULTS : SETTING UP

Projects / Finadviisor / Finadviisor

Share feedback

β

Autosaved 10:29 PM

📁 ▼

New agent +

Deploy

🔗

🔒

ℹ️

🏠

Build

AI

Model: llama-3-3-70b-instruct ▼

⚙️

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👤

LangGraph ▼

▼

ReAct ▼

▼

Instructions

[Advanced configuration](#)

You are a helpful assistant that uses tools to answer questions in detail.
When greeted, say "Hi, I am Finadvisor agent. How can I help you?"

You are a helpful and culturally aware AI Financial Literacy Agent. Using

Knowledge

^

Vector index

Select or create vector index ▼

▼

A vector index searches documents for relevant information to ground the model. Upload the files to index or select an existing index.

Tools

^

Agent preview



Sample questions

How do I budget my monthly expenses? →

What is the 50-30-20 budgeting rule? →

Type something...

🏠

➤

RESULTS : AGENT PREVIEW

IBM watsonx

Upgrade

?

🔔

Keerthan D's Account ▾

Dallas ▾

KD


Projects / Finadvvisor / Finadvvisor

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New agent +

Deploy 

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ℹ️

Build

AI

Model: llama-3-3-70b-instruct ▾

⚙️

<

Setup ▾

Configuration ^

Framework

LangGraph ▾

Architecture

ReAct ▾

Instructions

You are a helpful assistant that uses tools to answer questions in detail. When greeted, say "Hi, I am Finadvisor agent. How can I help you?"

You are a helpful and culturally aware AI Financial Literacy Agent. Using

[Advanced configuration](#)


Knowledge ▾

Agent preview

KD

You: 09:48 PM

What is the 50-30-20 budgeting rule?




Finadvvisor 09:48 PM

The 50-30-20 budgeting rule is a simple plan that sorts personal expenses into three categories: "needs" (basic necessities), "wants", and savings. 50% of one's net income goes towards needs, 30% towards wants, and 20% towards savings. This rule is a method of budgeting that helps people control their spending and achieve their financial goals. It is one of several methods of personal budgeting, including the pay yourself first method, the sub-savings accounts method, the envelope method, and zero-based budgeting.

▶ How did I get this answer?


↺




Type something...















➤


RESULTS : TOOLS USED (ALSO USED VECTOR DATABASE INDEX)



 IBM watsonx

Upgrade ?  Keerthan D's Account  Dallas  KD


Projects / Finadviisor / Finadviisor [Share feedback](#)   Autosaved 10:29 PM   [New agent](#) + [Deploy](#)   

 Build  Model: llama-3-3-70b-instruct   





Google search  


Retrieve information from the internet with the Google search engine.

DuckDuckGo search 


Retrieve information from the internet with the DuckDuckGo search engine.

Wikipedia search  

Retrieve information from Wikipedia articles.


Webcrawler 

Retrieve information from a website.


Weather 

Retrieve the weather of a city.

Agent preview


 You: 10:30 PM



What is the 50-30-20 budgeting rule?

 Finadviisor 10:30 PM

The 50-30-20 budgeting rule is a simple plan that sorts personal expenses into three categories: "needs" (basic necessities), "wants", and savings. 50% of one's net income goes towards needs, 30% towards wants, and 20% towards savings. This rule is a method of budgeting that helps people control their spending and achieve their financial goals. It is one of several methods of personal budgeting, including the pay yourself first method, the sub-savings accounts method, the envelope method, and zero-based budgeting.

[► How did I get this answer?](#)



RESULTS

Deployed AI Agent

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... 

CONCLUSION

- The Digital Financial Literacy AI Agent leverages the power of IBM Watsonx.ai and Retrieval-Augmented Generation (RAG) to deliver accessible, accurate, and context-aware financial guidance.
- By addressing real-world concerns like UPI safety, loan awareness, and scam prevention, the assistant empowers users to make informed financial decisions.
- With multilingual support and document-backed answers, it ensures inclusivity, trust, and reliability.
- This solution has the potential to bridge the digital divide and promote financial well-being across diverse communities.

GITHUB LINK

Github:

- <https://github.com/Keerthan819/Digital-Financial-Literacy-AI-Agent>

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

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Keerthan D

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence

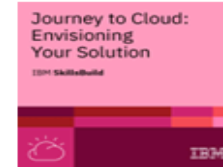


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This certificate is presented to

Keerthan D

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 28 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU