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# **IBM SKILLSBUILD PROJECT**

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

**Presented By:**

**Student name : Souparnika H**

**College Name & Department : Bharathiar University &  
Department of Computer Application**

# OUTLINE

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

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# PROBLEM STATEMENT

## **Problem Statement:**

Users across diverse backgrounds often struggle to understand digital financial tools and fall victim to scams due to limited guidance and language barriers. There's a need for a system that simplifies UPI usage, prevents fraud, and answers financial queries in native languages.

## **Solution:**

An AI Agent powered by Natural Language Processing and Retrieval Augmented Generation retrieves reliable financial content and supports multilingual interaction. It educates users on UPI usage, fraud prevention, budgeting, and more making digital finance accessible and secure using IBM Cloud Lite and IBM Granite models.

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# TECHNOLOGY USED

- IBM cloud lite services
- Natural Language Processing (NLP)
- Retrieval Augmented Generation (RAG)
- IBM Granite model

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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

- **This AI agent empowers users by making digital finance more accessible, secure, and user friendly.** It assists with financial and banking related queries, supports multilingual interaction, and enables users to ask questions in their native language. The agent promotes safe digital transactions, improves budgeting awareness, and guides users in choosing suitable financial schemes with confidence.
- Unique features:
- Natural language support in multiple regional languages
- Step-by-step guidance on using UPI and online banking tools
- Scam prevention tips and alerts for suspicious activity
- Budget tracking and expense-splitting suggestions
- Interest rate comparison across different banks and schemes
- Personalized financial education based on user queries

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## END USERS

- General Public of Urban & Rural Areas
- Senior Citizens & First Time Internet Users
- Cybersecurity Awareness Programs
- People willing to learn about New schemes
- Individuals Who Want to Budget Effectively

# RESULT

# CREATED AN AI AGENT

The screenshot displays the IBM Watsonx web interface for managing a project. The browser address bar shows the URL: `dataplatfom.cloud.ibm.com/projects/ee6bf7fd-565b-4329-99a8-6d046ffaa1b4/manage/general?context=wx`. The interface includes a top navigation bar with the IBM Watsonx logo, an 'Upgrade' button, and user information for 'Souparnika Haridas's Accou...'. Below this, a breadcrumb trail indicates the current location: 'Projects / Agent for Digital Financial Literacy'. The main content area is divided into several sections. On the left, a sidebar lists navigation options: 'Overview', 'Assets', 'Deployments', 'Jobs', and 'Manage' (which is currently selected). Under 'Manage', there are sub-sections for 'Project' (with 'General' selected), 'Access control', 'Environments', 'Resource usage', 'Services & integrations', 'Tools', and 'Pipeline'. The 'Details' section for the 'Agent for Digital Financial Literacy' project is shown, containing a description: 'The agent is developed to promote financial literacy by guiding users in the safe and effective use of digital financial tools like UPI. It educates individuals on avoiding common scams, understanding how interest works in savings and loans, managing digital transactions securely, and making informed financial decisions. This initiative empowers users especially those new to digital finance with practical knowledge to navigate today's financial landscape confidently'. It also shows 'Tags' (with an 'Edit tags' button) and the 'Project ID' (ee6bf7fd-565b-4329-99a8-6d046ffaa1b4). On the right, a 'Storage' section indicates 'Storage used' is 19.5 KB and provides the bucket name 'agentfordigitalfinancialliteracy-donotdelete-pr-cmpsf04lkzroj2'. A 'Manage in IBM Cloud' link is also present.

← → ↻ 🌐 dataplatfom.cloud.ibm.com/projects/ee6bf7fd-565b-4329-99a8-6d046ffaa1b4/manage/general?context=wx ☆ S ⋮

☰ IBM watsonx Upgrade ⓘ 🔔 Souparnika Haridas's Accou... ▾ Dallas ▾ SH

Projects / Agent for Digital Financial Literacy ⬆ ▾ 👤 Launch IDE ▾ ⓘ ⌚ 💬 ⚙

Overview Assets Deployments Jobs **Manage**

Project

**General**

🔑 Access control

🔗 Environments

📊 Resource usage

⚙ Services & integrations

Tools

🔗 Pipeline

**Details** ✎

Name

Agent for Digital Financial Literacy

Description

The agent is developed to promote financial literacy by guiding users in the safe and effective use of digital financial tools like UPI. It educates individuals on avoiding common scams, understanding how interest works in savings and loans, managing digital transactions securely, and making informed financial decisions. This initiative empowers users especially those new to digital finance with practical knowledge to navigate today's financial landscape confidently

Tags **Edit tags** ✎

Add tags to make projects easier to find.

Project ID

ee6bf7fd-565b-4329-99a8-6d046ffaa1b4 📋

**Storage** ⓘ

Storage used

**19.5** KB

Bucket

agentfordigitalfinancialliteracy-donotdelete-pr-cmpsf04lkzroj2

[Manage in IBM Cloud](#) 🔗



# RESULT

# WORKED ON DEVELOPING AGENT

IBM watsonx

Upgrade ?

Souparnika Haridas's Acco... Dallas SH

Proje... / Agent for Digital Financial Li... / Digital Financial Literacy ... Share feedback β Autosaved 5:52 PM New agent + Deploy

Build

AI Model: granite-3-3-8b-instruct

Agent preview

Added tools (4)

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.

Document search - Understanding Fixed Deposit and uses

Search documents with vector indexes.

Sample questions

Tamil

Malayalam

Hindi

English

Type something...

# RESULT

# ASK AGENT HOW TO USE AN UPI ?

IBM watsonx

Upgrade ⓘ 🔔

Souparnika Haridas's Acco... ▾

Dallas ▾

SH

Proje... / Agent for Digital Financial L... / Digital Financial Literacy... [Share feedback](#) β

Autosaved 12:54 PM

New agent +

Deploy 🔗

🔒 ⓘ

Build

AI Model: granite-3-3-8b-instruct ⚙️ <

Setup ▾

Configuration ▴

Framework

LangGraph ▾

Architecture

ReAct ▾

Instructions

Advanced configuration

You are a helpful AI assistant trained to improve digital financial literacy for citizens, especially beginners, rural users, and the elderly.

Your job is to:

Respond only to financial and banking-related queries such as UPI, net

Knowledge ▾

Agent preview

SH You: 12:55 PM

How can I use a UPI?

Digital Financial Literacy Agent 12:55 PM

Sure, I can guide you on how to use UPI (Unified Payments Interface). Here are the basic steps:

1. **UPI App:** First, you need to download a UPI-enabled app on your smartphone. Popular options include Google Pay, PhonePe, Paytm, and BHIM.

2. **Register:** Open the app and register using your mobile number. You'll receive an OTP (One Time Password) for verification.

3. **Link Bank Account:** Link your bank account to the app. You'll need to enter your bank account details and set up a UPI PIN.

Type something...

🔍 ➤

Send

foundation

# RESULT

# MULTI LANGUAGE PREFERENCE

IBM watsonx

Upgrade

?

Souparnika Haridas's Acco... ▾

Dallas ▾

SH

Proje... / Agent for Digital Financial L... / Digital Financial Literacy...

Share feedback

β

Autosaved 12:55 PM

▾

New agent +

Deploy

Build

AI

Model: granite-3-3-8b-instruct ▾

<

Setup ▾

Configuration ▴

Framework

LangGraph ▾

Architecture

ReAct ▾

Instructions

Advanced configuration

You are a helpful AI assistant trained to improve digital financial literacy for citizens, especially beginners, rural users, and the elderly.

Your job is to:

Respond only to financial and banking-related queries such as UPI, net

Knowledge ▾

Agent preview

SH You: 01:01 PM

Tamil

Digital Financial Literacy Agent 01:01 PM

வணக்கம். நிதி அல்லது வங்கித் தொடர்பான கேள்வியை தயவுசெய்து கேளுங்கள்.

► How did I get this answer?

Type something...

Send

# RESULT

# DEPLOYED AGENT

Deployment spaces / Digital Financial Agent / Digital Financial Literacy Agent /

Digital Financial Literacy Agent ✓ Deployed Online

API reference

Test

Evaluations

Preview

Endpoints for inferencing ⓘ

Private endpoint

https://us-south.ml.cloud.ibm.com/ml/v4/deployments/3f372385-a800-4d73-8f9e-  
██

https://us-south.ml.cloud.ibm.com/ml/v4/deployments/3f372385-a800-4d73-8f9e-  
██

Public endpoint

https://us-south.ml.cloud.ibm.com/ml/v4/deployments/3f372385-a800-4d73-8f9e-  
██

https://us-south.ml.cloud.ibm.com/ml/v4/deployments/3f372385-a800-4d73-8f9e-  
██

Bearer <token> ⓘ

IAM

Learn more

 about the 2021-05-01 version query parameter

About this deployment ×

Name ⓘ

Digital Financial Literacy Agent

Description ⓘ

Hi, I'm your Digital Friend

Deployment Details

Deployment ID: 3f372385-a800-4d...

Serving name: ⓘ

No serving name.

Software specification: ⓘ

runtime-24.1-py3.11 ⚙️

Hardware specification: ⓘ

Extra extra small: 1 CPU and 2 GB RAM

Copies: ⓘ

1

Tags ⓘ

wx-agent

edunet  
foundation

# RESULT

# PREVIEW OF AGENT

[Deployment spaces](#) / [Digital Financial Agent](#) / [Digital Financial Literacy Agent](#) /

Digital Financial Literacy Agent ✓ Deployed Online


API reference

Test

Evaluations


Preview

New chat +

 Digital Financial Literacy Agent 06:05 PM

Welcome to Digital Financial Literacy Agent

Hi, I'm your Digital Friend



About this deployment ×

Name

Digital Financial Literacy Agent

Description

Hi, I'm your Digital Friend

Deployment Details

Deployment ID: 3f372385-a800-4d...

Serving name: No serving name.

Software specification: runtime-24.1-py3.11 ⚙️

Hardware specification: Extra extra small: 1 CPU and 2 GB RAM

Copies: 1

Tags

wx-agent



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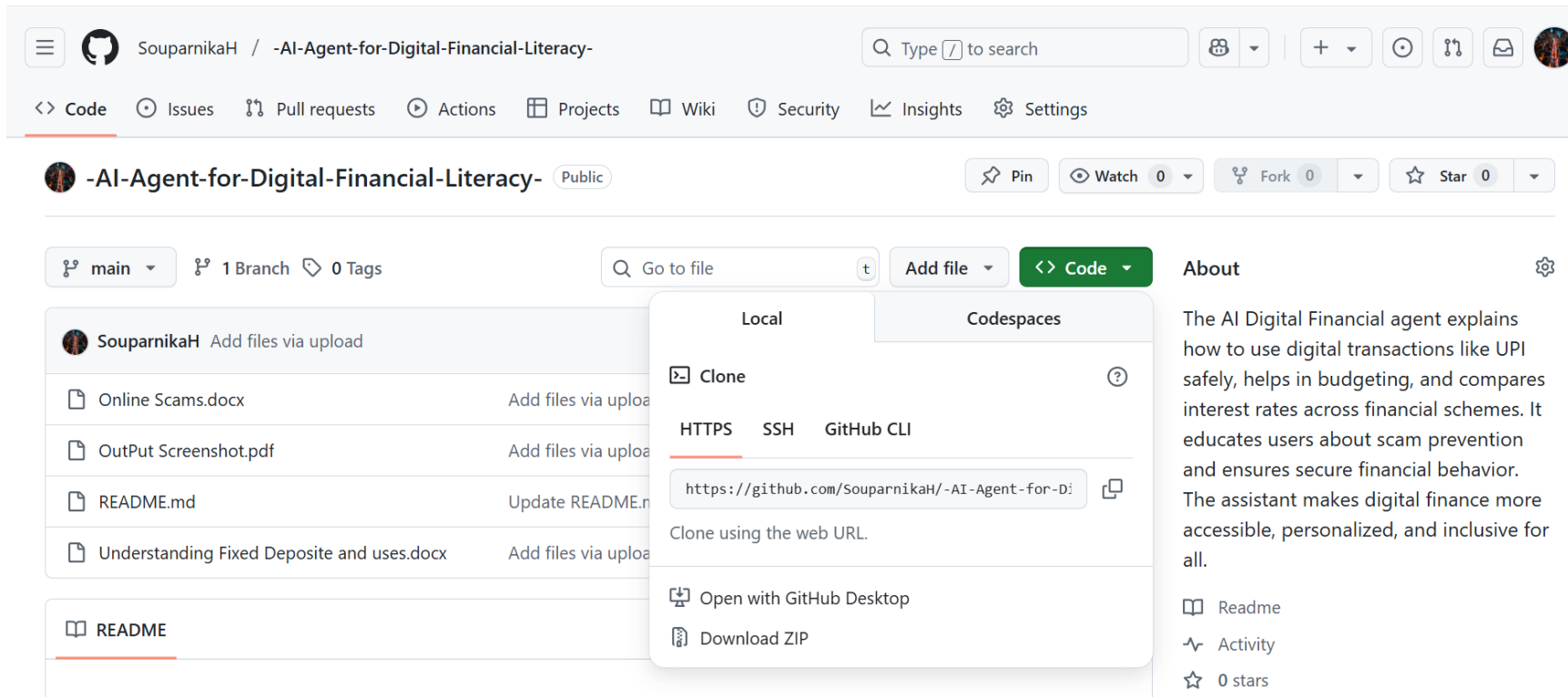
## CONCLUSION

- The Digital Financial Literacy AI Agent serves as a powerful and inclusive tool to bridge the financial knowledge gap across diverse user groups.
- By offering multilingual support and simplified guidance on banking, budgeting, and safe digital transactions, it empowers individuals to make informed financial decisions.
- With its ability to identify scams, suggest schemes, and encourage responsible money management, this agent fosters financial confidence and digital trust, contributing to a more financially literate society.



# GITHUB LINK

- <https://github.com/SouparnikaH/-AI-Agent-for-Digital-Financial-Literacy-.git>



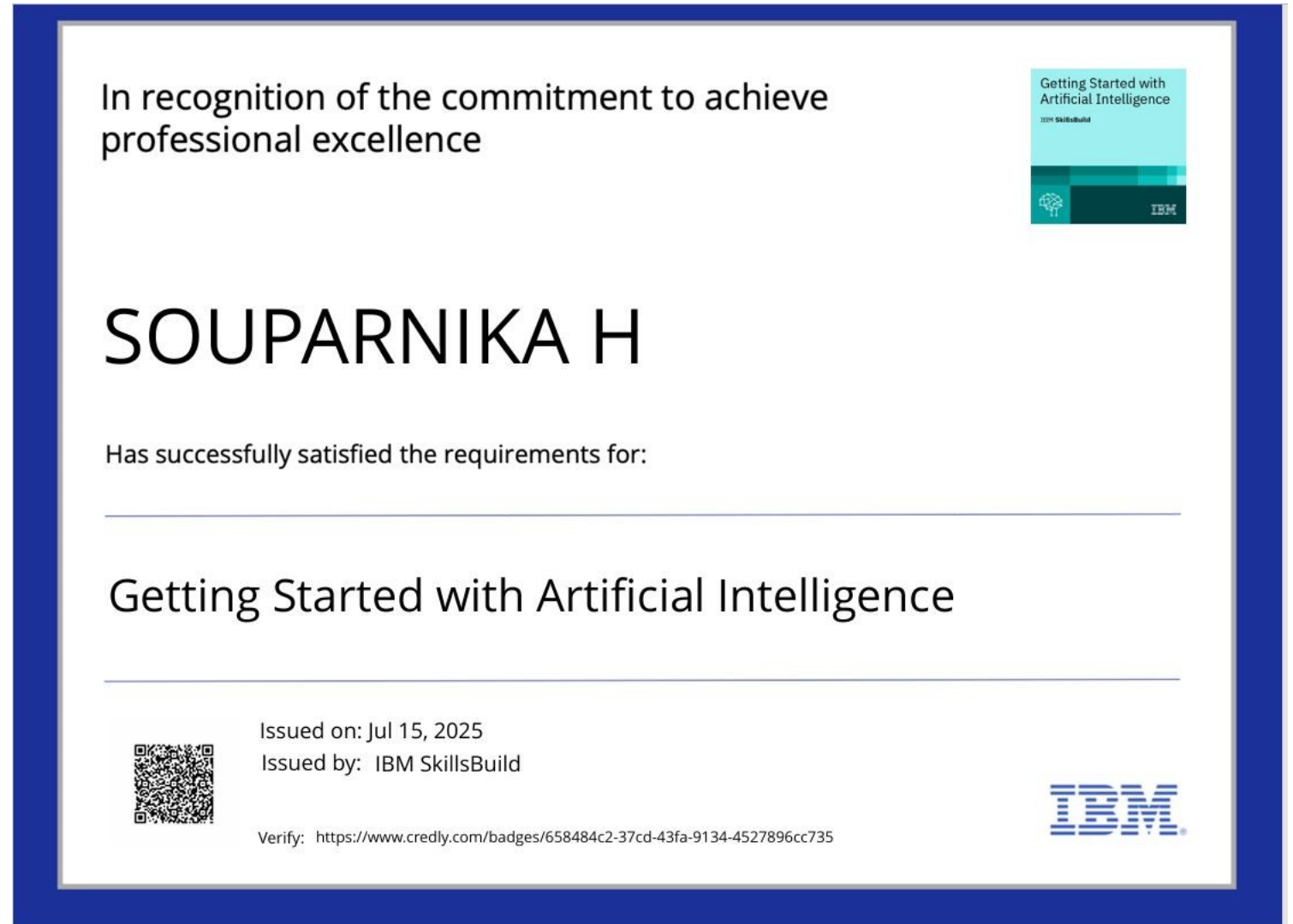
# FUTURE SCOPE

- **Scam & Phishing Verification Support** : Users can forward suspicious messages, emails, or links to the agent, which will analyze them using up-to-date fraud databases and AI models to assess whether the source is trustworthy or a potential scam.
- **Scam & Phishing Verification Support** : Users can forward suspicious messages, emails, or links to the agent, which will analyze them using up-to-date fraud databases and AI models to assess whether the source is trustworthy or a potential scam.
- **Integration with UPI Apps & Banking API's** : Allow users to practice or simulate safe digital transactions via guided walkthrough or connect securely with UPI apps for real usage.



# IBM CERTIFICATIONS

Getting Started With Artificial  
Intelligence



# IBM CERTIFICATIONS

Journey to Cloud: Envisioning  
Your Solution



RAG : Retrival  
Augmented  
Generation with  
LangChain

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

SOUPARNIKA H

for the completion of

**Lab: Retrieval Augmented Generation with  
LangChain**

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

**Completion date:** 18 Jul 2025 (GMT)

**Learning hours:** 20 mins



**THANK YOU**