IBM AICTE PROJECT

DIGITAL FINANCIAL LITERACY AI AGENT

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OUTLINE

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PROBLEM STATEMENT

Many individuals, especially in rural or non-English-speaking regions, struggle to understand and use digital financial tools safely.

Manual awareness programs are limited in reach and cannot personalize education for diverse user needs.

Proposed Solution:

An AI Agent for Digital Financial Literacy using RAG (Retrieval-Augmented Generation) to provide accurate, multilingual, and personalized financial guidance on:

- UPI usage
- Online scam prevention
- Interest rates
- Budgeting & saving
- Loan safety and more.



TECHNOLOGY USED

- IBM Cloud Lite Services
- IBM Watsonx Al Studio
- IBM Watsonx Agent Lab
- IBM Granite Foundation Model
- Retrieval-Augmented Generation (RAG)
- Natural Language Processing (NLP)
- Multilingual Translation APIs



IBM CLOUD SERVICES USED

- IBM Cloud Watsonx Al Studio
- IBM Cloud Watsonx Al Runtime
- IBM Agent Lab (Beta)
- IBM Granite (for foundation model-based understanding)



WOW FACTORS

This agent will drastically reduce financial confusion, protect users from scams, and empower every Indian — urban or rural — with digital money skills by making financial knowledge smart, simple, and secure. Unique features:

- Smart retrieval from RBI, NPCI, govt portals
- Simplifies financial terms for beginners
- Multilingual support for regional inclusivity
- Scam alerts for fake UPI links & fraud apps
- Personalized answers (e.g., safe loan for ₹10k/month earner)
- Budgeting tips for low-income users
- No app needed works on low-end devices
- Auto-updated with latest digital finance rules

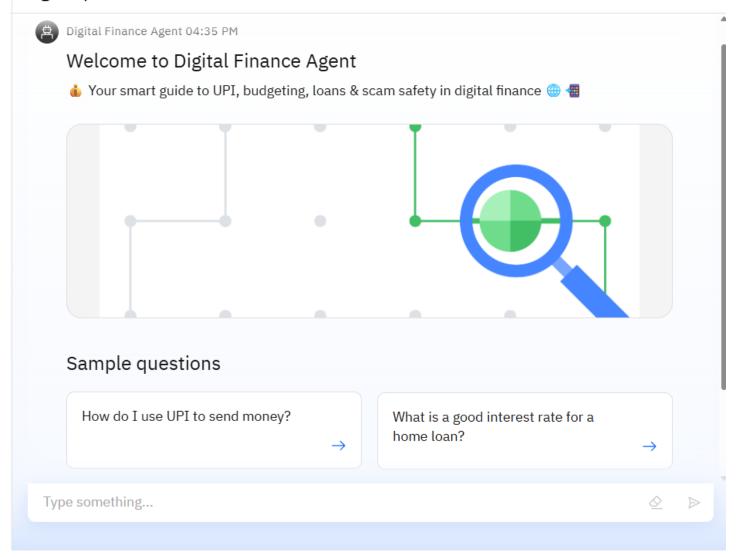


END USERS

- Students and Young Adults
- Farmers and Rural Population
- Senior Citizens
- First-time Bank Users
- Government Schemes Beneficiaries
- Microbusiness Owners



Agent preview





Agent preview



MU You: 04:37 PM

How do I use UPI to send money?



Digital Finance Agent 04:37 PM

Here are some steps to send money using UPI:

- 1. Open your UPI app: This could be Google Pay, PhonePe, Paytm, or any other UPI-enabled app.
- 2. Select the 'Send Money' option: This is usually found on the home screen of the app.
- 3. Enter the receiver's details: You can enter the receiver's UPI ID, phone number, or scan their QR code.
- 4. Enter the amount: Type in the amount you want to send.
- 5. Confirm the transaction: Review the details and confirm the payment. You may need to enter your UPI PIN to complete the transaction.

For more detailed instructions, you can refer to the following links:

- Google Pay Help
- Paytm Blog
- NPCI Product Overview



Agent preview



You: 04:41 PM

How can a college student start saving money every month?



Digital Finance Agent 04:41 PM

Here are some tips for a college student to start saving money every month:

- 1. **Create a Budget**: Calculate the amount of money you have coming in and keep track of how much money you're spending each month.
- 2. **Set Financial Goals**: Set your short and long-term financial goals. This could be saving for a new laptop, a trip, or even starting an emergency fund.
- Automate Savings: Set up automatic transfers from your checking account to a savings
 account each month. This way, you won't even see the money and will be less tempted to
 spend it.
- 4. **Limit Transportation Costs**: Use public transportation, carpool, or walk instead of driving to save on gas and parking.
- Curb Tech Spending: Limit spending on new gadgets and consider buying used or refurbished items.
- 6. **Start Saving Today**: Even small amounts can add up over time. Start with what you can afford and increase your savings as your income grows.
- 7. **Apply for Scholarships and Grants**: Look for scholarships and grants that you may be eligible for. This can help reduce your tuition costs and free up more money for savings

Type something...







Agent preview



MU You: 04:38 PM

Can you help me create a monthly budget on a ₹20,000 salary?



Digital Finance Agent 04:38 PM

Sure, I can help you create a basic monthly budget. Here's a simple breakdown:

1. **Income**: ₹20,000

2. Expenses:

- **Rent/Housing**: ₹5,000 (25% of income)
- **Food**: ₹4,000 (20% of income)
- Transportation: ₹2,000 (10% of income)
- Utilities (electricity, water, internet): ₹2,000 (10% of income)
- Savings/Investments: ₹3,000 (15% of income)
- Personal/Discretionary (entertainment, dining out, etc.): ₹2,000 (10% of income)
- Miscellaneous (unexpected expenses, medical, etc.): ₹2,000 (10% of income)

Total Expenses: ₹20,000

This is a basic example and your actual budget may vary based on your personal circumstances





Agent preview

MU You: 04:44 PM

मुझे डिजिटल पेमेंट सुरक्षित तरीके से कैसे करना चाहिए?

Digital Finance Agent 04:44 PM

डिजिटल पेमेंट सुरक्षित तरीके से करने के लिए, आपको कुछ महत्वपूर्ण सुरक्षा उपायों का पालन करना चाहिए:

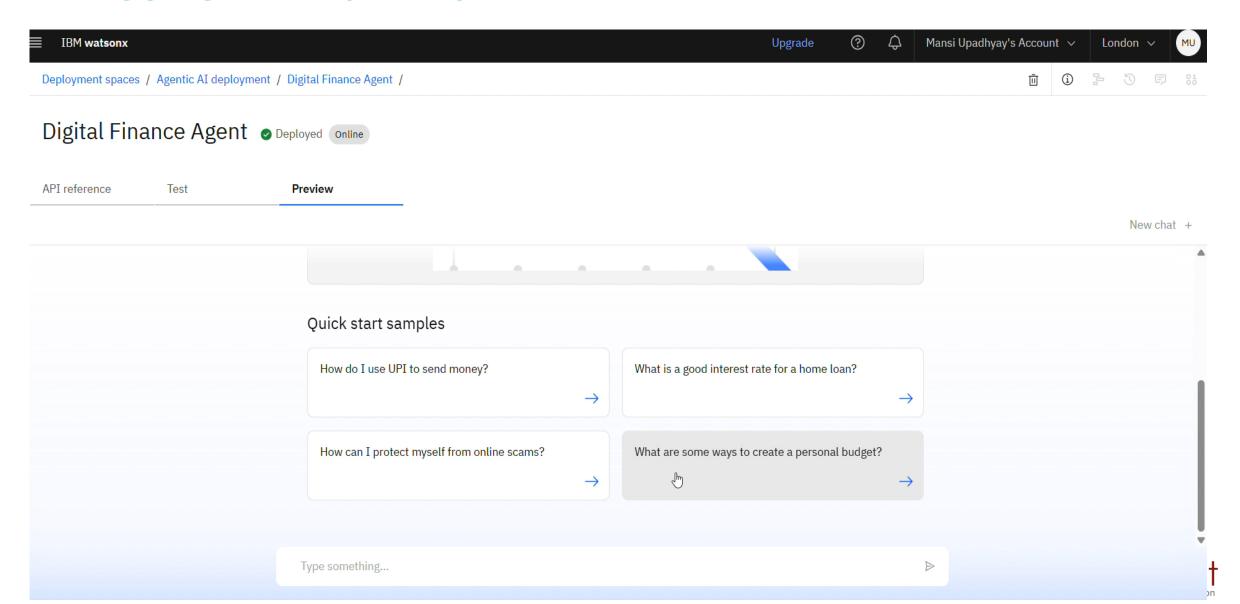
- 1. **सुरक्षित पासवर्ड और पिन का उपयोग करें**: अपने डिजिटल पेमेंट एप्लिकेशन के लिए एक मजबूत और अनूठा पासवर्ड या पिन सेट करें।
- 2. दो-फैक्टर प्रमाणीकरण (2FA) का उपयोग करें: जब भी संभव हो, 2FA का उपयोग करें ताकि आपके अकाउंट की सुरक्षा बढ़े।
- 3. सुरक्षित नेटवर्क का उपयोग करें: डिजिटल पेमेंट करते समय सार्वजनिक वाई-फाई नेटवर्क का उपयोग न करें। हमेशा एक सुरक्षित और विश्वसनीय नेटवर्क का उपयोग करें।
- 4. **अपडेट किए गए एप्लिकेशन का उपयोग करे



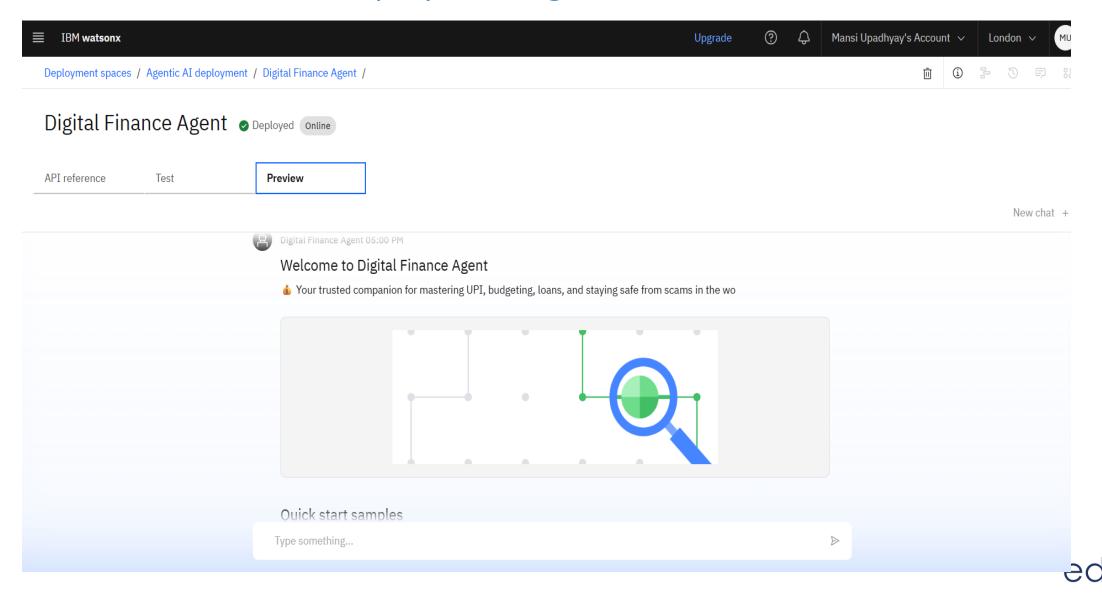




RESULTS - DEMO VIDEO



Deployed AI Agent



CONCLUSION

- This AI Agent for Digital Financial Literacy is not just a tool it's a mission to empower every citizen with the knowledge to make safe, smart, and confident financial decisions.
- By combining trusted data, AI intelligence, and multilingual support, this agent bridges the gap between technology and trust, bringing financial freedom within everyone's reach. A scalable, inclusive solution toward building a financially aware digital India.
- It is a scalable, secure, and inclusive innovation that contributes to building a financially aware and digitally empowered India.



GITHUB LINK

https://github.com/Mansi-Upadhyay-12/Digital-Financial-Literacy-Al-Agent



FUTURE SCOPE

- Chat-ready: Seamless integration with WhatsApp and chat platforms
- See it, Ask it: Upload images/screenshots to get instant financial advice
- Smarter Safety: Al that detects new fraud trends before they spread
- Rural Reach: Lightweight mobile app built for offline and low-end users
- Locally Trained: Region-aware AI that understands real user needs



IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence



Mansi Upadhyay

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/faf04bdd-af0c-41c5-a6ee-0c2289a7c959





IBM SkillsBuild

Completion Certificate



This certificate is presented to

Mansi Upadhyay

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU

