
IBM PROJECT

AI AGENT FOR DIGITAL FINANCIAL LITERACY

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OUTLINE

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PROBLEM STATEMENT

In today's digital economy, many individuals struggle to understand and safely navigate essential financial tools like UPI, interest rates, budgeting, and fraud prevention due to lack of accessible, trustworthy, and personalized financial education. This gap is especially critical for users from diverse linguistic and educational backgrounds, limiting their ability to make informed financial decisions confidently.

PROPOSED SOLUTION

- The solution leverages IBM watsonx.ai to develop a Retrieval-Augmented Generation (RAG) powered virtual assistant that educates users on key financial topics like UPI, budgeting, and online scam prevention.
- **1. Foundation Model Selection**
 - Choose a suitable Granite or open-source FM (like Mistral, LLaMa2) from watsonx.ai's model library.
 - Fine-tune or prompt-tune the model for financial question-answering tasks.
- **2. Knowledge Grounding with RAG**
 - Upload trusted documents (PDFs, financial guides, RBI circulars) into Watsonx Data or Watson Discovery.
 - Enable RAG to allow the model to fetch contextual information before generating answers.
 - This helps ensure accurate, up-to-date, and explainable responses.
- **3. Prompt Engineering**
 - Design multilingual prompts that help users ask questions.
- **4. Deployment on IBM Cloud Lite**
 - All services (Watsonx.ai, object storage, Assistant) are hosted within IBM Cloud Lite.
 - Easy-to-access interface shared with users via web link or WhatsApp/IVR integration.
- **5. Evaluation:**
 - Evaluate the assistant's effectiveness using: Accuracy of responses (vs gold answers) .
 - Improve model performance by refining prompts or adding new documents.

TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

IBM CLOUD SERVICES USED

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

END USERS

- General Public
- Students
- Low-Income & Rural Populations
- First-Time Digital Users

WOW FACTORS

This AI agent will empower users with reliable financial knowledge, reduce dependence on manual research, protect against digital fraud, and foster financial confidence across diverse communities by making financial literacy accessible, personalized, and multilingual.

Unique features:

- **Built on IBM Watsonx.ai + RAG:** Uses advanced Retrieval-Augmented Generation for trustworthy, real-time financial responses.
- **Multilingual Support:** Helps users in their **preferred regional languages**, making digital finance inclusive and accessible.
- **Fraud Awareness & Safety:** Educates users about **online scams and UPI safety**, empowering them to avoid fraud.
- **Personalized Financial Guidance:** Offers tailored advice on **budgeting, interest rates, loans**, and daily financial tasks.
- **Free, Always Available Advisor:** Acts like a **virtual financial coach**, accessible 24/7 to guide all age groups with no cost.

RESULTS

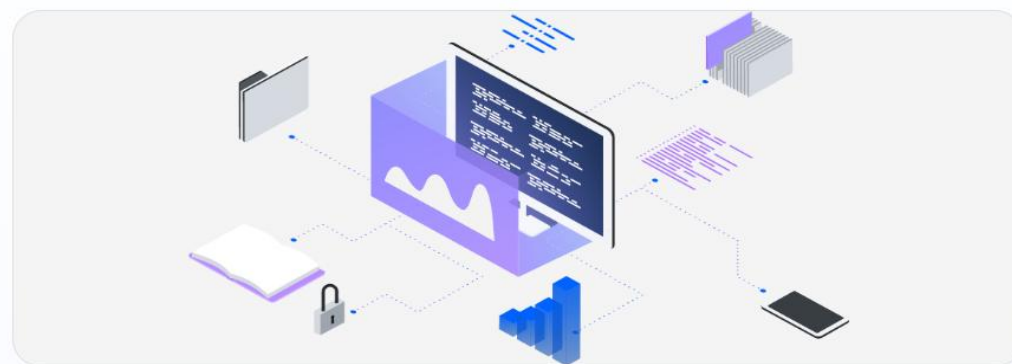
Agent preview



Finvisor 11:00 PM

Welcome to Finvisor

Aims to develop an intelligent virtual assistant that enhances financial awareness.



Sample questions

What is the best way to start investing with limited income? →

How can I save enough for my child's education? →

What should my ideal monthly

How can I legally reduce my

Type something...



RESULTS

Agent preview



You: 09:23 PM

How do I send money via UPI



Finvisor 09:23 PM

You can send money via UPI by following these steps:

1. Choose where the money's going: Send to bank accounts around the world.
2. Choose how much to send: Enter the amount you want to send.
3. Select the receiver: Search for the receiver's VPA, UPI ID, or phone number.

You can use apps like Google Pay, Wise, or Remitly to send money to UPI ID. Make sure to have the recipient's UPI ID, which is a combination of their name and bank account number.

Please note that there may be fees associated with sending money via UPI, and the transfer time may vary depending on the app and the recipient's bank.

► **How did I get this answer?**



You: 09:23 PM

What is a safe interest rate for a loan?



Finvisor 09:23 PM

Type something...



RESULTS

Agent preview



You: 09:23 PM

What is a safe interest rate for a loan?



Finvisor 09:23 PM

A safe interest rate for a loan can vary depending on factors such as the type of loan, the borrower's credit score, and the lender. Generally, a safe interest rate is one that is competitive and reasonable, and does not put an undue burden on the borrower.

For example, for a personal loan, a safe interest rate might be between 6% and 12% per annum, depending on the borrower's credit score and other factors. For a home loan, a safe interest rate might be between 7% and 10% per annum.

It's important to note that interest rates can fluctuate over time, and what may be considered a safe interest rate today may not be tomorrow. It's always a good idea to shop around and compare rates from different lenders to find the best deal.

Additionally, it's also important to consider other factors such as the loan tenure, fees, and charges, and to carefully review the loan agreement before signing it.

It's also worth noting that there are some general guidelines that can help you determine if an interest rate is safe or not. For example, if the interest rate is significantly higher than the market average, it may be considered unsafe. Similarly, if the interest rate is variable and can change over time, it may be considered riskier than a fixed interest rate.

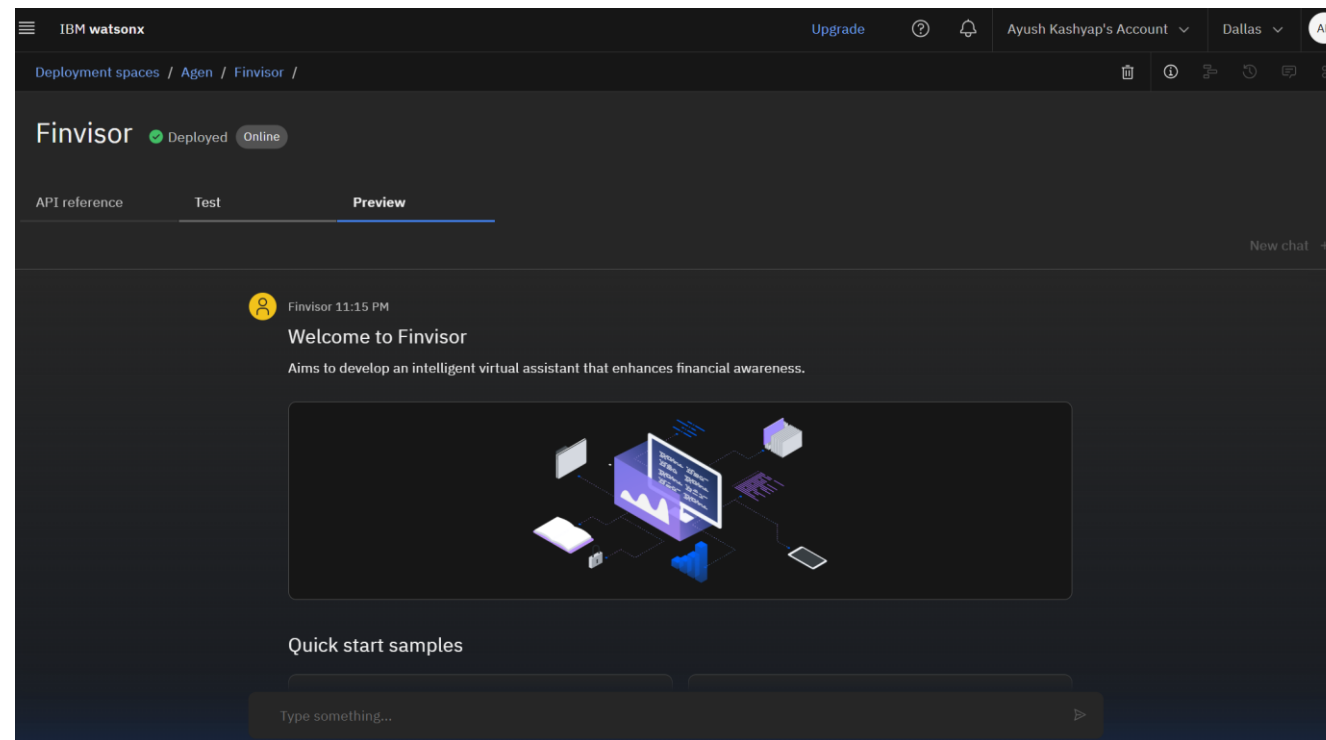
Ultimately, the safety of an interest rate depends on the individual borrower's

Type something...



RESULTS

Deployed AI Agent



CONCLUSION

- **Empowering:** The AI agent empowers users with essential digital financial knowledge in a personalized and accessible manner.
- **Protective:** It actively safeguards individuals from financial fraud and misinformation through trusted sources.
- **Inclusive:** Multilingual and user-friendly design ensures financial literacy reaches diverse and underserved communities.

GITHUB LINK

- [AayushKP/Digital_Financial_Literacy-](#)

FUTURE SCOPE

- **Voice-Based Interactions** – Integration with voice assistants for hands-free, accessible financial learning.
- **Regional Expansion** – Support for more Indian languages and dialects to reach deeper rural populations.
- **Smart Notifications** – Real-time alerts on scams, budget overspending, and financial tips personalized for users.
- **Gamification** – Introducing quizzes and reward-based learning to engage users in financial literacy.
- **Integration with Financial Services** – Direct links to trusted UPI apps, banking portals, and credit score platforms for action-oriented guidance.

IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence



Ayush Kashyap

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/2dc26b42-63c5-4700-8ee6-6d4ff6cd37fa>





This certificate is presented to

Ayush Kashyap

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 25 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU