



AI Agent for Financial Literacy

This project focuses on building an intelligent AI Agent capable of educating users about essential financial concepts such as UPI, EMI, loans, credit scores, and preventing online scams. It provides guidance in an interactive and bilingual manner.

Presented by:

Archita Sinha

IBM SkillBuild Virtual Internship
Edunet Foundation

Technology & Platform:

IBM Granite

Langflow

IBM Cloud

Watsonx.ai

Retrieval-Augmented Generation (RAG)



Imagine

you're at your local tea shop, and the owner gets a gets a “You’ve won cashback! Click here” UPI UPI message.

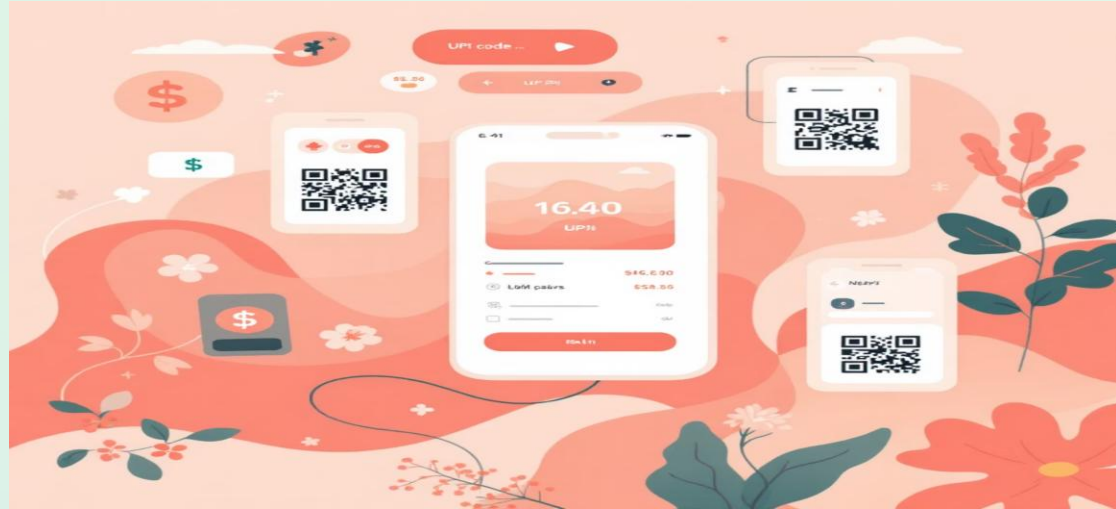
One click later... ₹5,000 is gone. Instant shock, instant instant lesson..

₹30,000 Crore Lost to Scams Annually- source: Times of India / RBI 2024

The Financial Literacy Gap in India

Digital India

Rapid adoption of digital transactions and UPI apps.



Confused Citizen

Many citizens are puzzled by complex financial concepts.



Knowledge Deficit



Security Risks



Language Barrier

Only 27% of Indians understand basic finance — that's over 900 million people making money decisions without real knowledge.

Our mission? To turn financial confusion into financial confidence using AI.

Source :Reserve Bank of India & National Centre for Financial Education, 2019



Introducing FinBuddy – Your AI Financial Literacy Agent 🗣️



Bilingual & Friendly

Converses naturally in **English** and **Hindi**.



Verified Knowledge

Simplifies finance using real **RBI** and **SEBI** data.



Instant & Private

Available 24×7, offering judgment-free advice.

Accessibility for All: The Beneficiaries



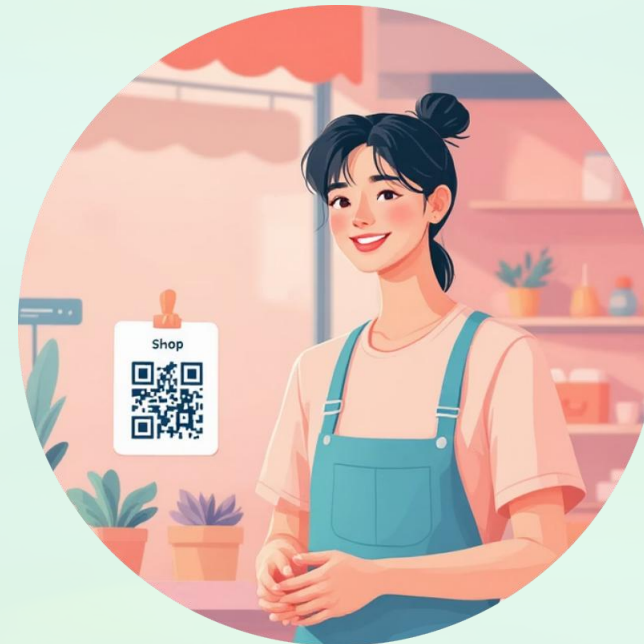
Students

First-time loan applicants, credit card users, and early investors.



Senior Citizens

Navigating the digital economy safely.



Small Business Owners

Understanding loans, GST, and tax compliance basics.



Rural Users

Accessing information in local languages.

Key Tools and Technologies



Watsonx.ai

Foundation Model for core intelligence.



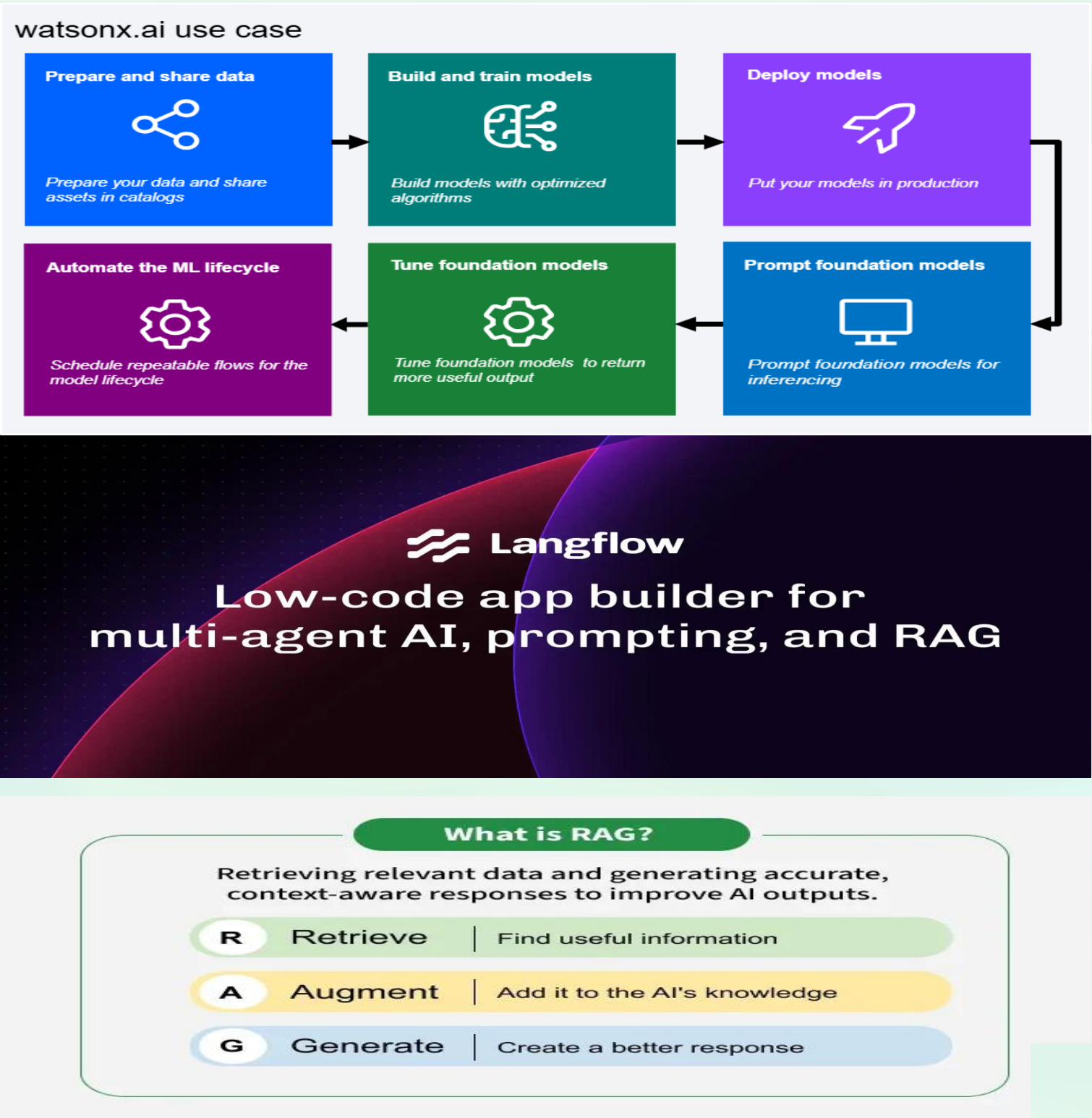
LangFlow

Connects and manages the entire conversational and data retrieval flow.



RAG

Retrieves verified, up-to-date data from RBI, SEBI, and government sources.

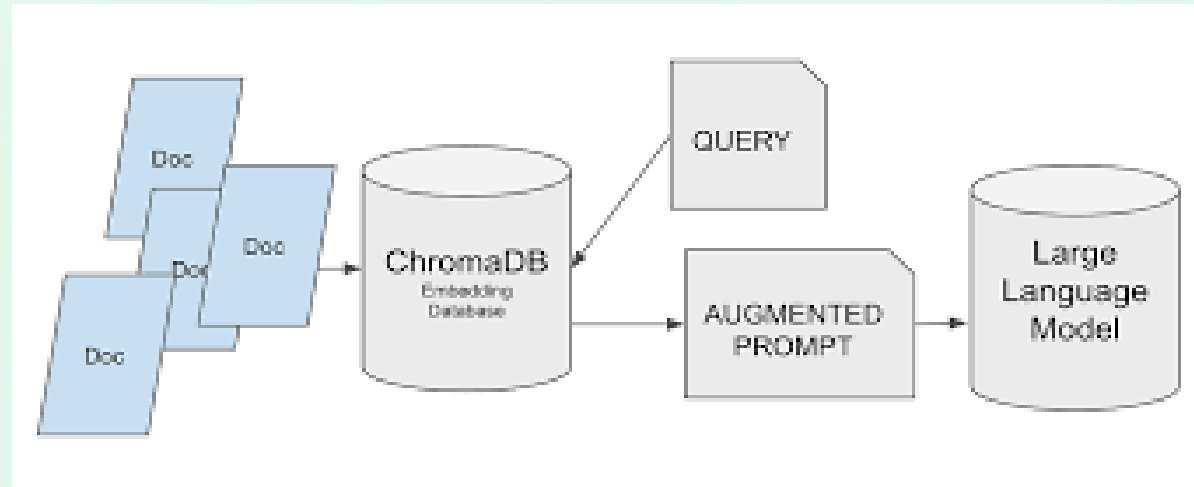


Key Tools and Technologies



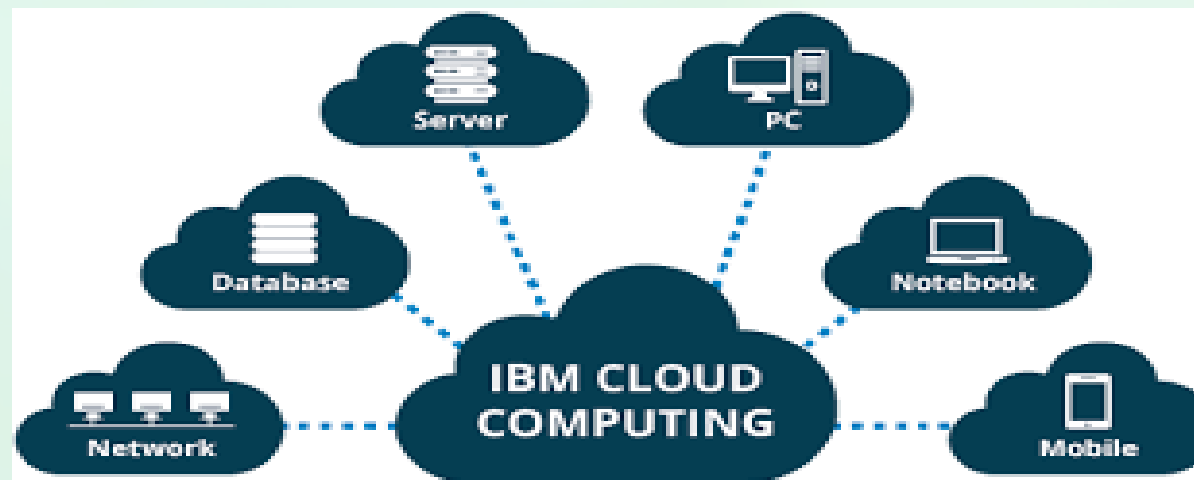
ChromaDB

Vector database for knowledge storage.



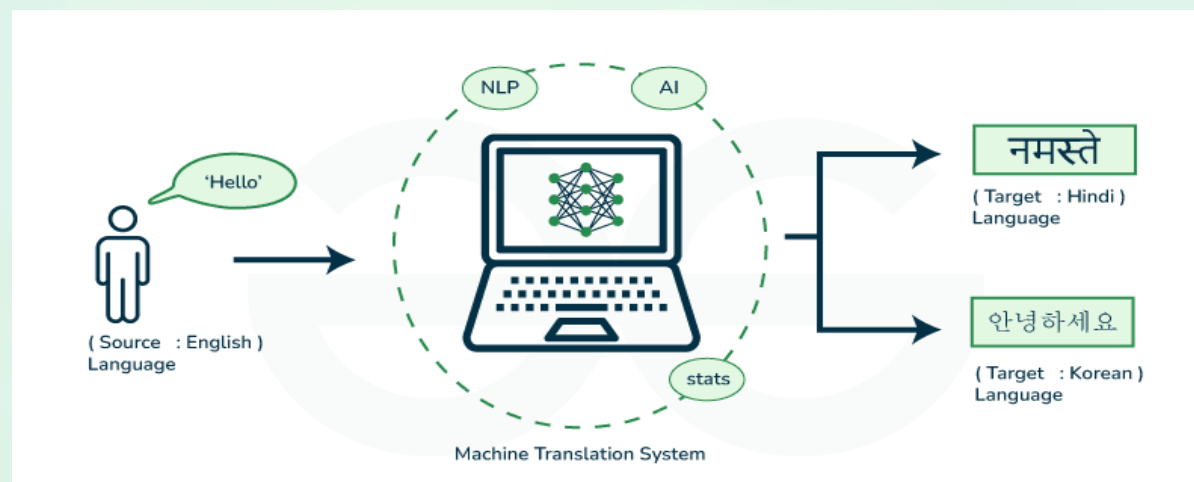
IBM Cloud

Secure and scalable infrastructure.



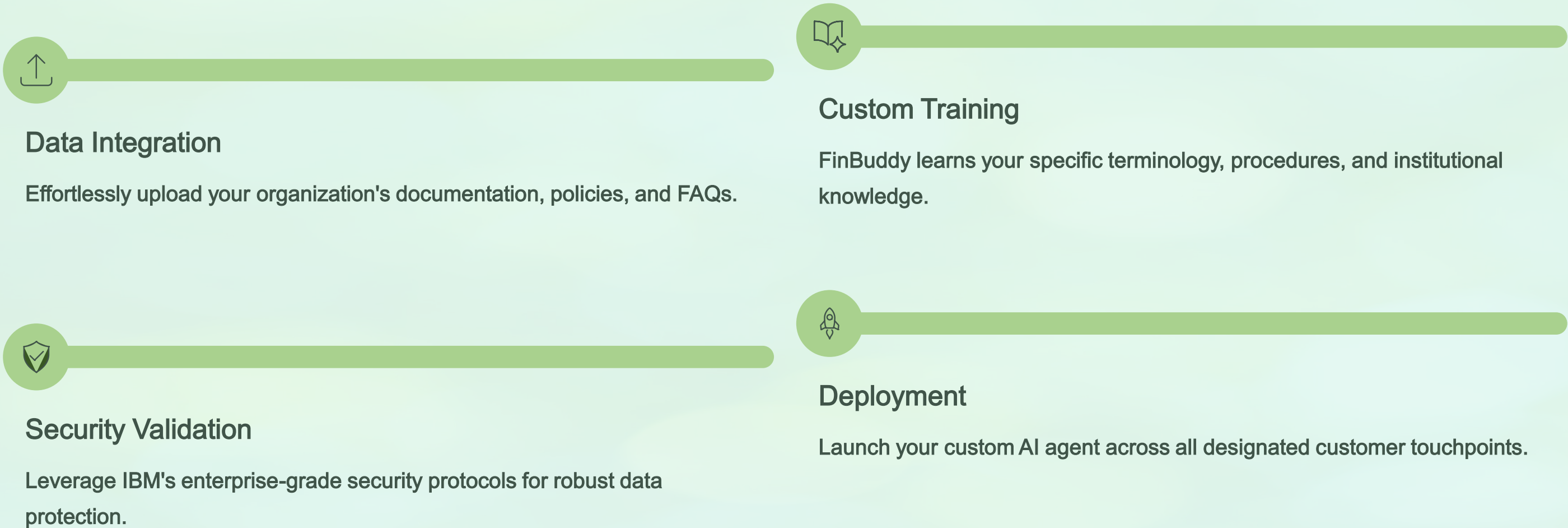
Translator

Bilingual support (English + Hindi).



Seamless Enterprise Integration Process

Implementing FinBuddy is a streamlined journey designed for speed, security, and customization within your organization.



 **Zero Data Breach Guarantee with IBM Cloud Security**

Demo Overview: Real-World Testing

The system's capabilities were validated by testing it against typical user financial queries, showcasing its multilingual and computational strengths.



UPI Setup Guidance

Provided clear, step-by-step UPI setup instructions in Hindi.



EMI Calculation

Calculated monthly EMI values accurately based on user inputs.



Credit Score Advisory

Explained credit score factors and offered improvement tips using contextual recall.

The demo confirmed the system's ability to handle multilingual needs, complex calculations, and contextual conversations—proving its utility as a genuine financial learning tool.



Search



Components



Input / Output



Agents



Models



Data



Processing



Logic



Helpers


Discover more components

+ New Custom Component

>_ Logs



▶ Playground

Share ▼

 **File**

Loads content from one or more files.


Files ⓘ


 You are an AI Financi... 15.06 KB 

Advanced Parser ⓘ

☐


Raw Content ▼




 **Chat Input**


Get chat inputs from the Playground.

Input Text ⓘ

What is this document is about? 

Chat Message



 **Prompt**


Create a prompt template with dynamic variables.

Template


Answer user's questions based on the document below:


{Document}

Document

Receiving input 


Prompt




 **IBM watsonx.ai**

Generate text using IBM watsonx.ai foundation models.


Input

Receiving input 


System Message ⓘ

Receiving input 



watsonx API Endpoint ⓘ

https://us-south.ml.cloud.ibm.c... 


watsonx Project ID* ⓘ

fc305600-700a-4f49-aca9-354d... 


Watsonx API Key* ⓘ


.....  

Model Name*

ibm/granite-3-2-8b-instruct 


Model Response ▼




 **Chat Output**

Display a chat message in the Playground.

Inputs* ⓘ

Receiving input 


Output Message

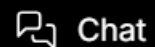




58% ^



 Playground



Chat



Default Session

Session Oct 22, 15:46:11

Session Oct 22, 16:15:41

Session Oct 22, 16:27:46 ...

Session Oct 22, 16:27:46



User

what is upi



AI ibm/granite-3-2-8b-instruct

UPI stands for Unified Payments Interface. It's a system developed by the National Payments Corporation of India (NPCI) that allows you to send and receive money using your smartphone. It's like a digital wallet that connects all your bank accounts into one app, making it easy to transfer money between them or to other people instantly.

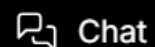
For example, if you have an account with Bank A and want to send money to a friend who uses Bank B, you can do so through UPI without needing their account details. You just need their virtual payment address (VPA), which is usually their phone number or a unique ID they've chosen.

It's as simple as opening your UPI app, selecting the bank account from which you want to send money, entering the VPA of the recipient, and confirming the amount. The transaction is completed in real-time, making it very convenient for daily transactions like paying bills, shopping online, or splitting expenses with friends.



Send

 Playground



Chat



Default Session

Session Oct 22, 15:46:11 ...

Session Oct 22, 16:15:41

Session Oct 22, 16:27:46

Session Oct 22, 15:46:11



User

अगर मेरे साथ बैंक फ्रॉड हो जाए तो क्या करें




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अगर आपको बैंक फ्रॉड (bank fraud) होने का समावेश किया जाता है, तो निम्नलिखित कदम उठाने के लिए करें:

1. **समय-सीमा:** 24-48 घंटे के भीतर, NPCI (National Payments Corporation of India) को, UPI (Unified Payments Interface) के समर्थन करने ेजल बैंक्स (banks) की मुलाकात करनी।
2. **सुरक्षित:** NPCI को, UPI API (Application Programming Interface) के 365 days se access karna hai. Yeh help karega aapko transaction ke bare mein pata chalne mein.
3. **Documentary Evidence:** Fraudulent transaction ke liye documentary evidence rakhna important hai. This could be screenshots of the transaction or any other proof that can help in investigation.
4. **Bank ke sath Contact Karna:** Bank ke sath contact karna aur unse poochhna ki unhone kya kar sakte hain. Unhonge apke account ke bare mein janna aur fraudulent transaction ko stop karne ki capacity hai.



Send

 Playground



Chat



Default Session

Session Oct 22, 15:46:11 ...

Session Oct 22, 16:15:41

Session Oct 22, 16:27:46

Session Oct 22, 15:46:11



User

credit score kya h



AI ibm/granite-3-2-8b-instruct

Credit score, also known as CIBIL score in India, is like a report card for your financial behavior. It's a three-digit number, usually between 300 to 900, that banks and financial institutions use to assess how likely you are to repay loans or credit cards on time.

Just like good grades on your report card can get you into a better school or college, a high credit score can help you get loans with lower interest rates and better terms. Conversely, a low credit score might make it harder for you to get loans or could result in higher interest rates.

Your credit score is based on various factors such as your repayment history of past loans or credit cards, the amount of debt you currently have, the length of your credit history, and more. Regularly paying your bills on time, maintaining low balances on your credit cards, and not applying for too much new credit at once can help improve your credit score over time.

|



Send

Measurable Results

95%

Accuracy

High precision in financial delivery

60%

Hallucination Reduction

Significant decrease in fabricated responses

100%

Accurate EMI & Financial Calculations

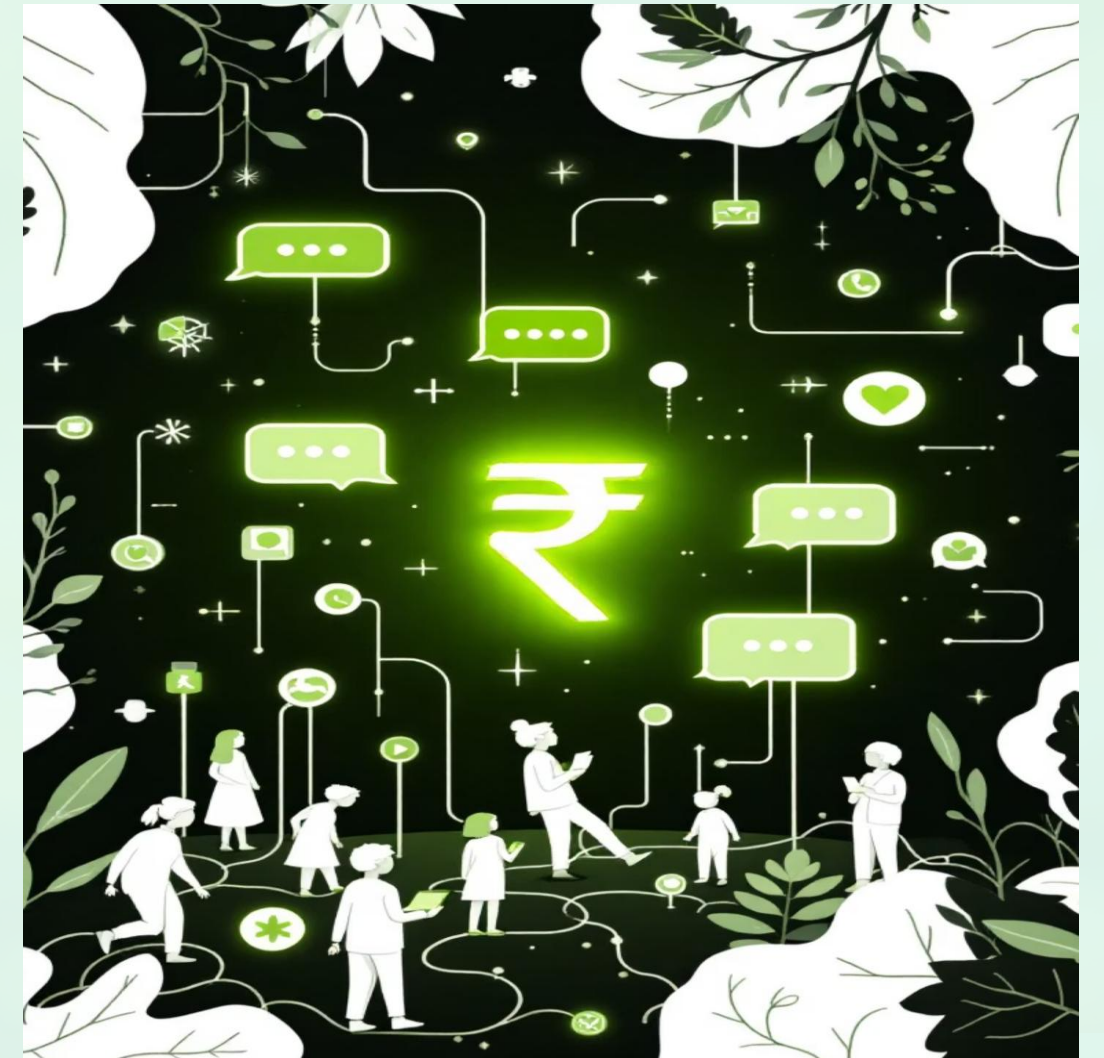
Measurable Business Impact for Financial Institutions

- 80% reduction in customer service tickets
- 24/7 instant multilingual support
- Consistent, accurate responses
- Average 60% cost reduction in operations

Long-term ROI: reduced training cost, higher satisfaction & trust.

Average 60%
Cost Reduction

in Customer Support Operations



Challenges & Future Scope



Data Curation

Maintaining & Expanding Verified Data Sources



Code-Mixing

Handling Mixed English/Hindi Queries Seamlessly



Concept Depth

Explaining Complex Topics Simply

Future Milestones



AI Voice Generation

Deep Learning - Natural Language - Audio Generation



Multilingual Support

Translation - Localization - Global Communication



WhatsApp App Integration

Messaging - Platform - Communication API

Our Vision: A Financially Confident India

Phase 1: Pilot & Validation

Testing RAG accuracy, bilingual capability, and user feedback collection.

Phase 3: Deep Customization

Adding personalized financial planning and localized schemes advice.

Phase 2: Scale & Integrate

Scaling deployment via Replicate API and integrating with partner platforms.

Phase 4: Goal

Mass adoption, significantly raising India's national financial literacy rate.

Let's Empower India. Together.

FinBuddy: Powered by IBM Granite, Langflow & RAG

By:

Archita Sinha

Email me at – architasinha8434@gmail.com

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THANK YOU

