CAPSTONE PROJECT

DIGITAL FINANCE LITERACY AGENT

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OUTLINE

- Problem Statement
- Proposed System/Solution
- System Development Approach
- Algorithm & Deployment
- Result (Output Image)
- Conclusion
- Future Scope
- References

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PROBLEM STATEMENT

- With the rapid adoption of digital payment methods like UPI, many users, especially from rural and semi-urban areas, lack awareness of safe practices. They often face:

  - Risk of digital fraud.
  - Confusion about loans and interest rates.
  - Lack of guidance on budgeting & saving.
  - Limited multilingual support for financial knowledge.
  - Ensuring safe, inclusive, and accessible digital finance education is a growing challenge.

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PROPOSED SOLUTION

- We propose an **AI-powered Digital Finance Literacy Assistant** using IBM Watson Assistant.
  Key features:

- Provides guidance on UPI safety, budgeting, loans, and fraud reporting
- Multilingual support so users can ask in their preferred language
- Accessible through a simple web chat deployed via GitHub Pages
- Empowers users with instant, reliable, and inclusive financial knowledge

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SYSTEM APPROACH

➢ **System Requirements**

- IBM Cloud(Lite Services)
- IBM Granite for multilingual Support.(Mandatory)
- IBM Watson Assistant for Model Development and Deployment.
- IBM Cloud object storage for Data handling.

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ALGORITHM & DEPLOYMENT

- **Algorithm:**
  - Rule-Based conversational AI using IBM Watson Assistant.
  - User queries are classified into intents (UPI, Loan, Budgeting, Fraud).
  - Context variables store user preferences (e.g., username).
- **Data Input:**
  - User questions entered in chat interface (e.g., “How do I avoid UPI fraud”).
  - Multilingual inputs supported (English, Hindi).
- **Training Process:**
  - Intents created: UPI Safety, Loan info, Budgeting tips, Report fraud.
  - Added Multiple sample user questions for each intent.
  - Also added Digital finance Quiz to test user’s Knowledge.
- **Prediction Process:**
  - User input → Intent detected → Matching response delivered.
  - Example: “How to save money monthly?” → Returns guidance that stored in model.
- **Deployment:**
  - Deployed on IBM cloud using Watson assistant and also hosted a web page through Github pages for free public access.
  - Accessed through the Watson Assistant Preview link (Web chat integration)

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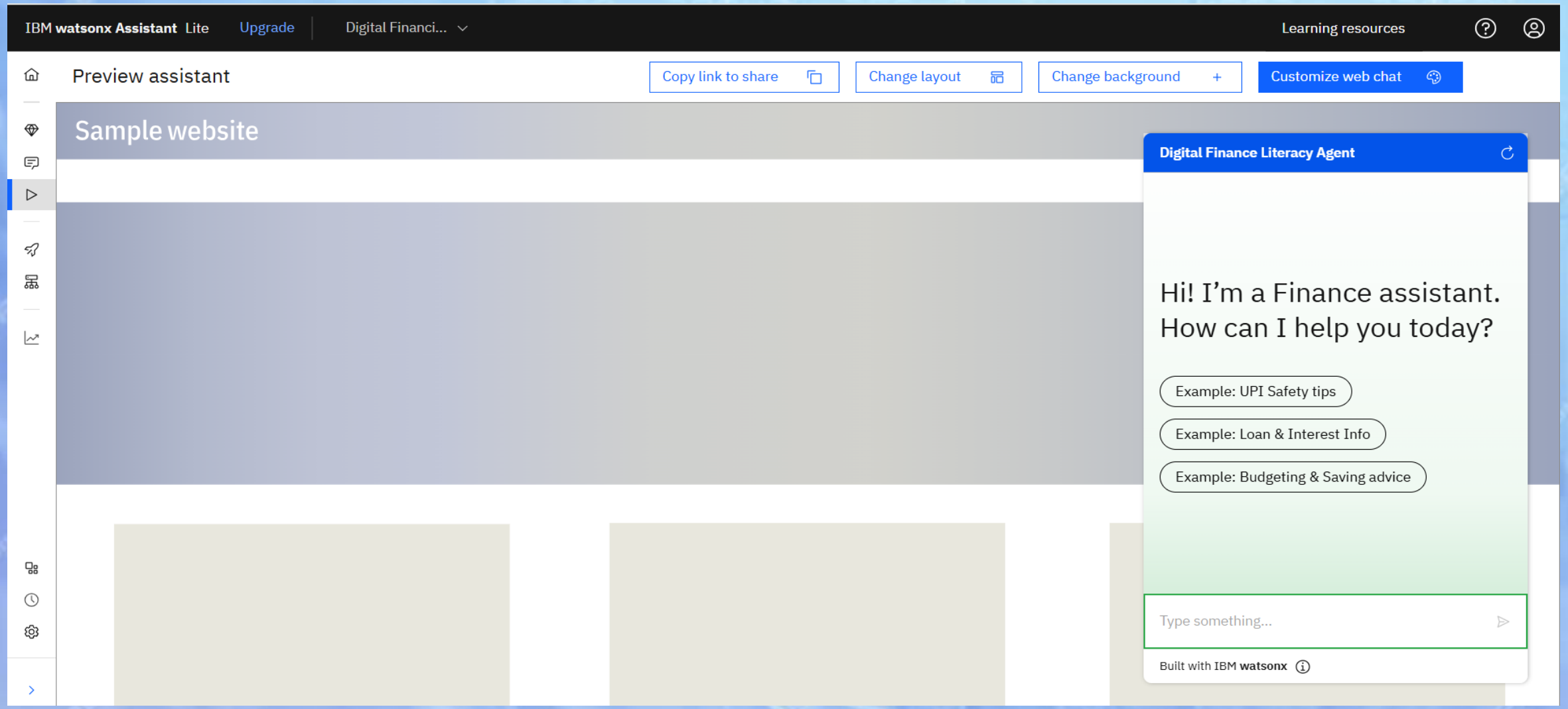
RESULT



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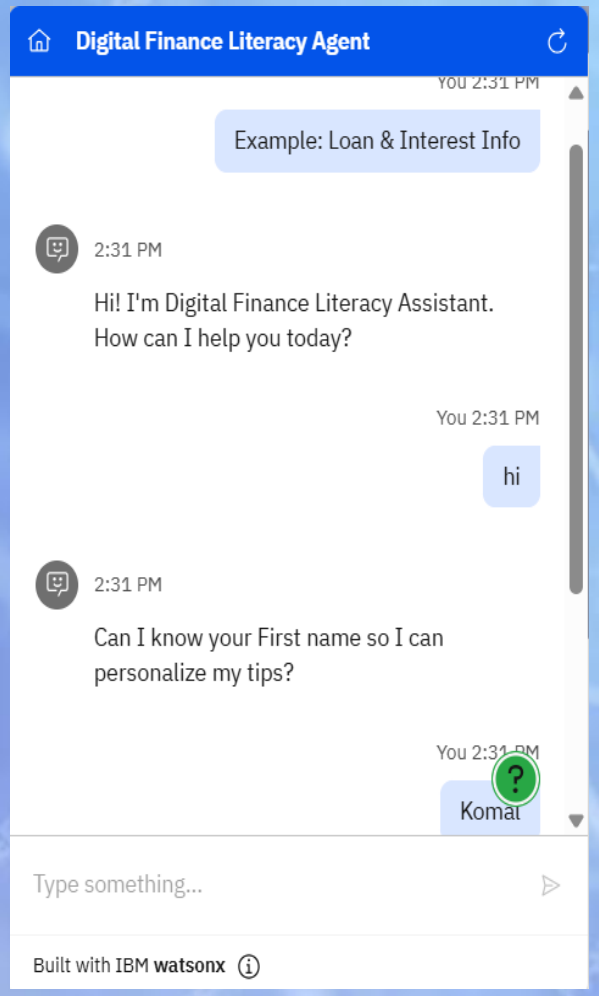
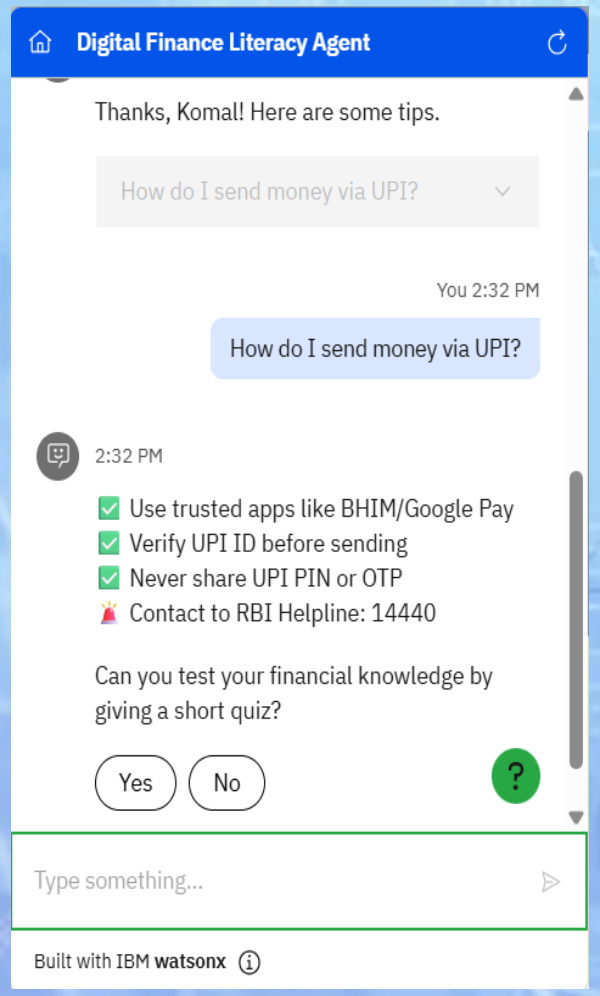
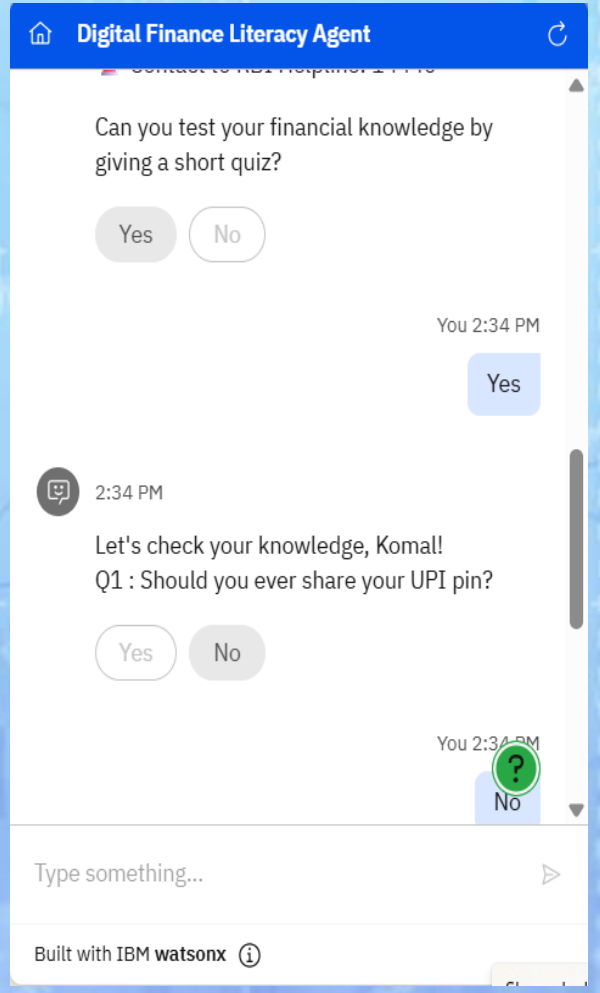
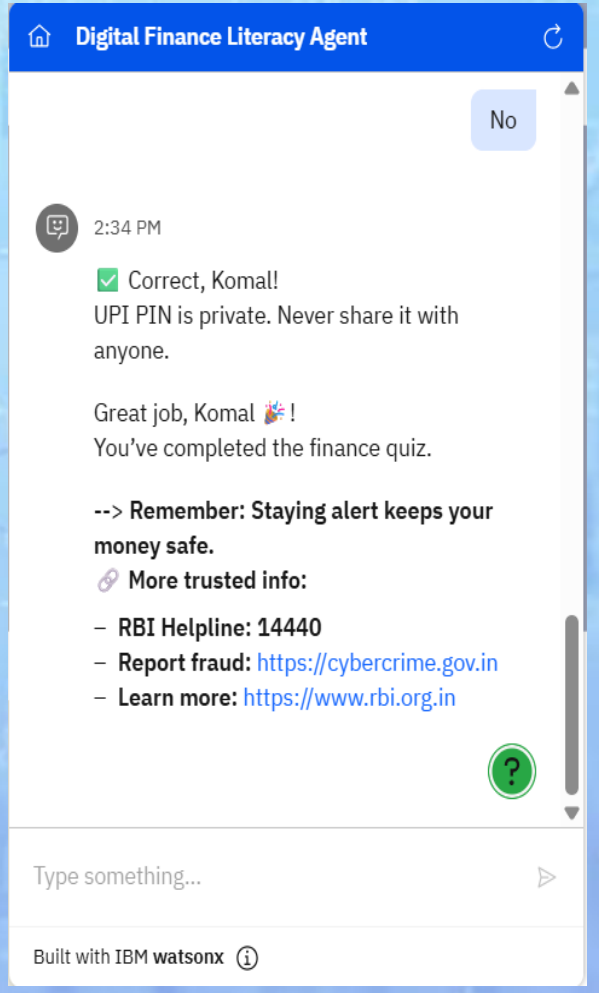
RESULT

→FULL PROCESS









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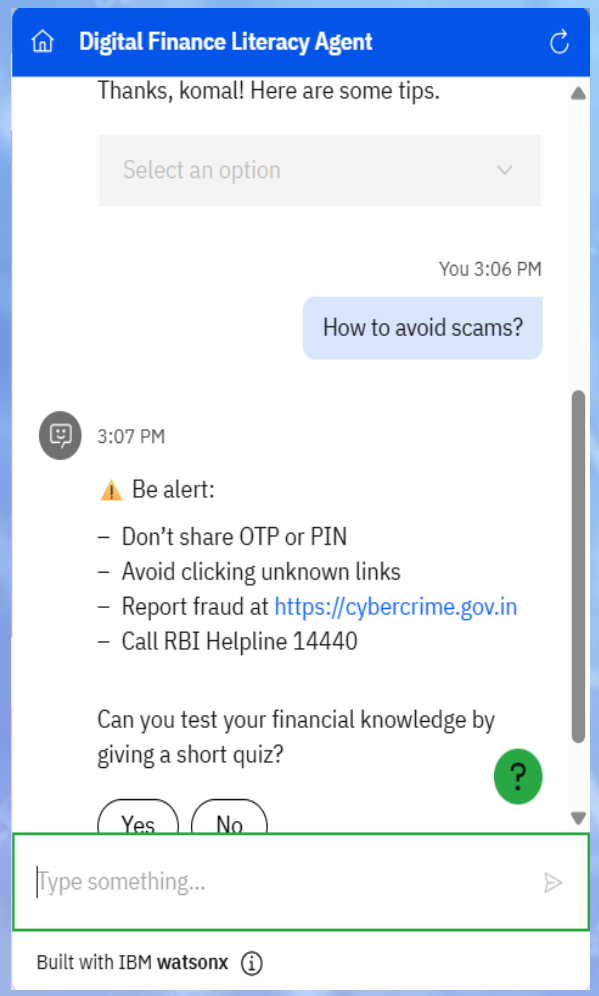
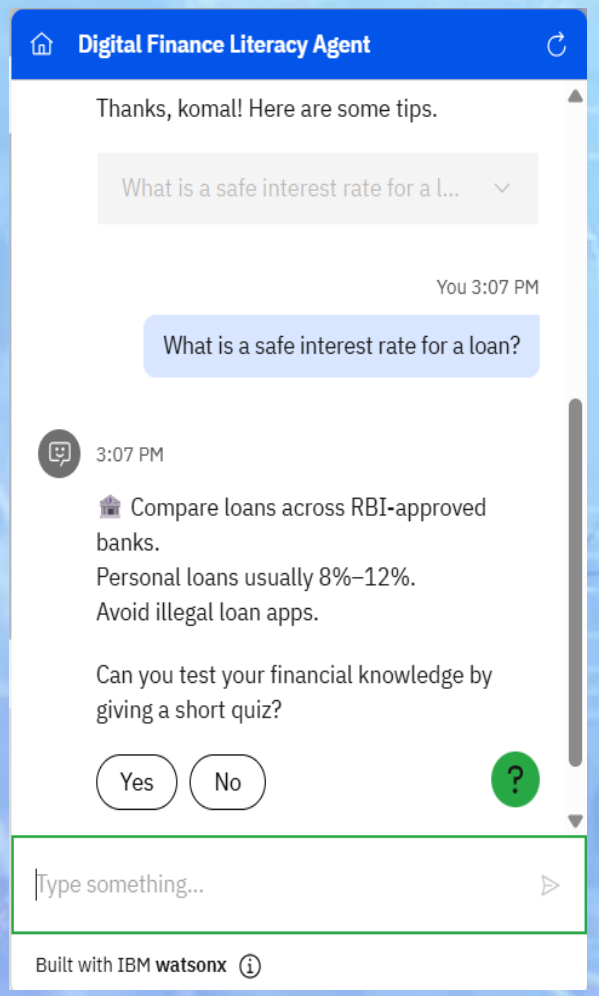
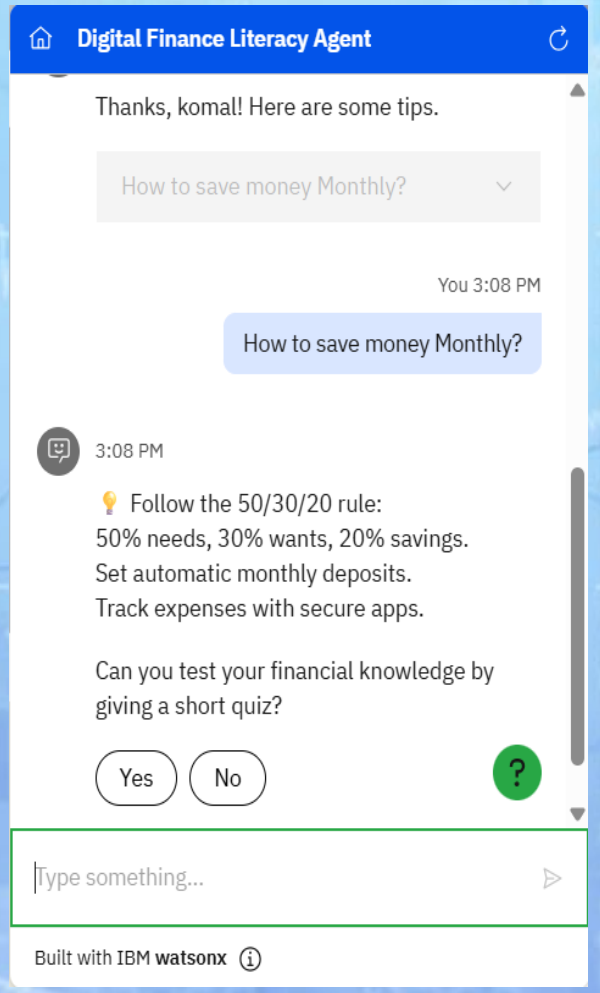
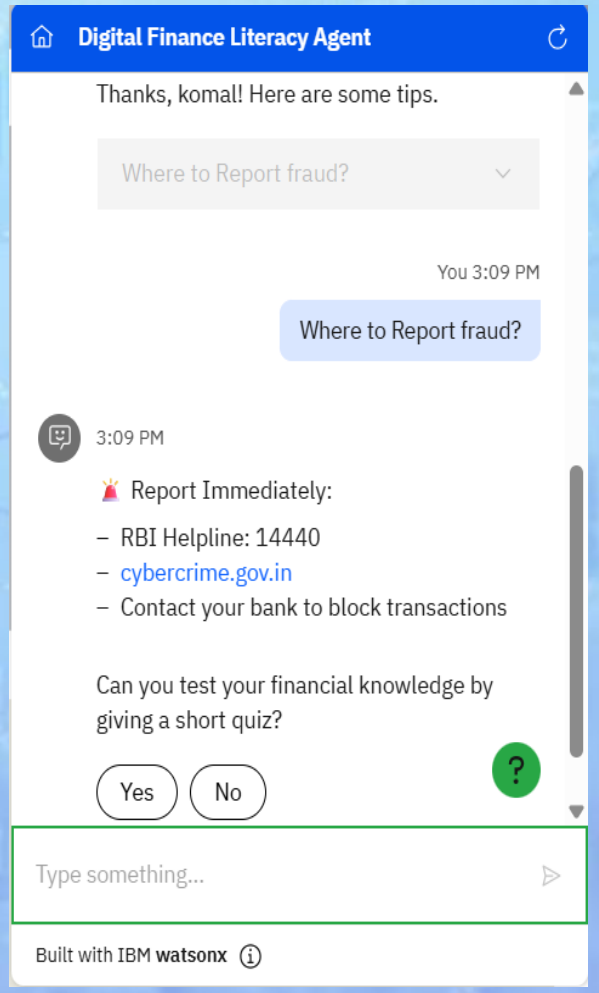
RESULT →CHOOSING DIFFERENT OPTIONS









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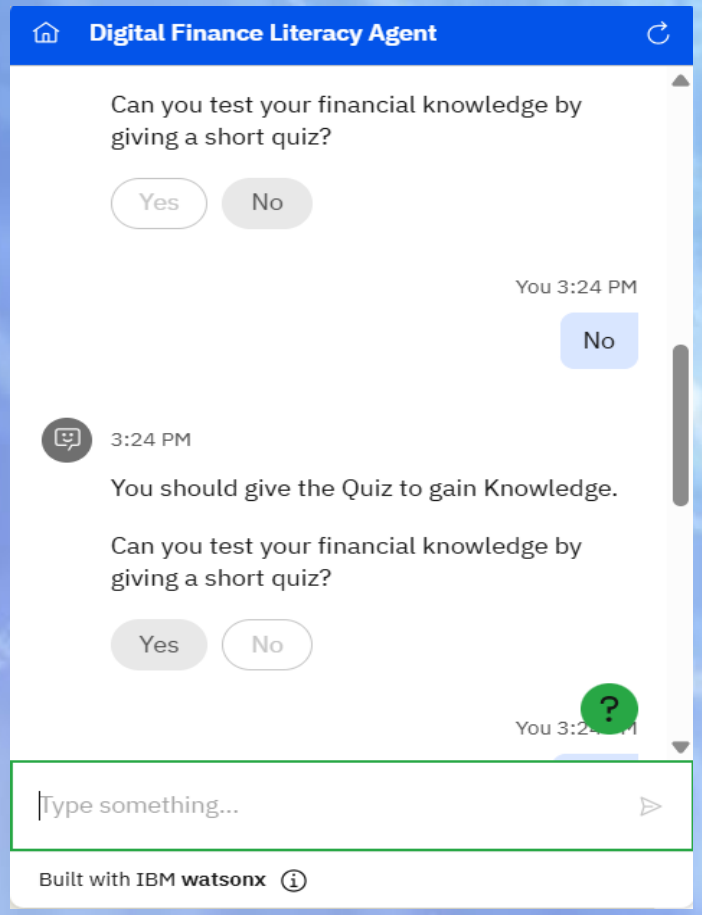
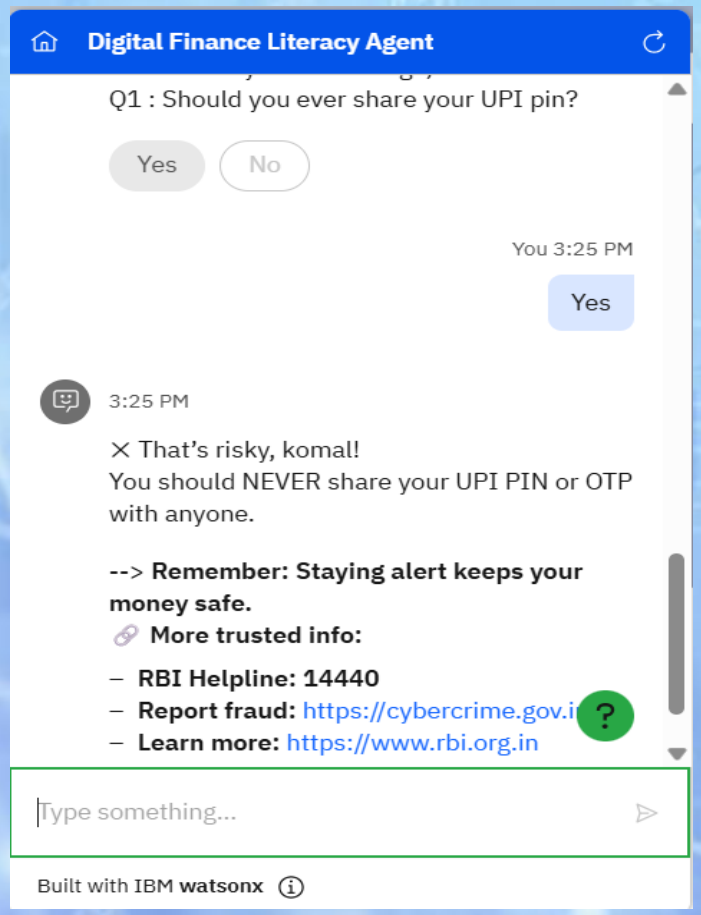
RESULT

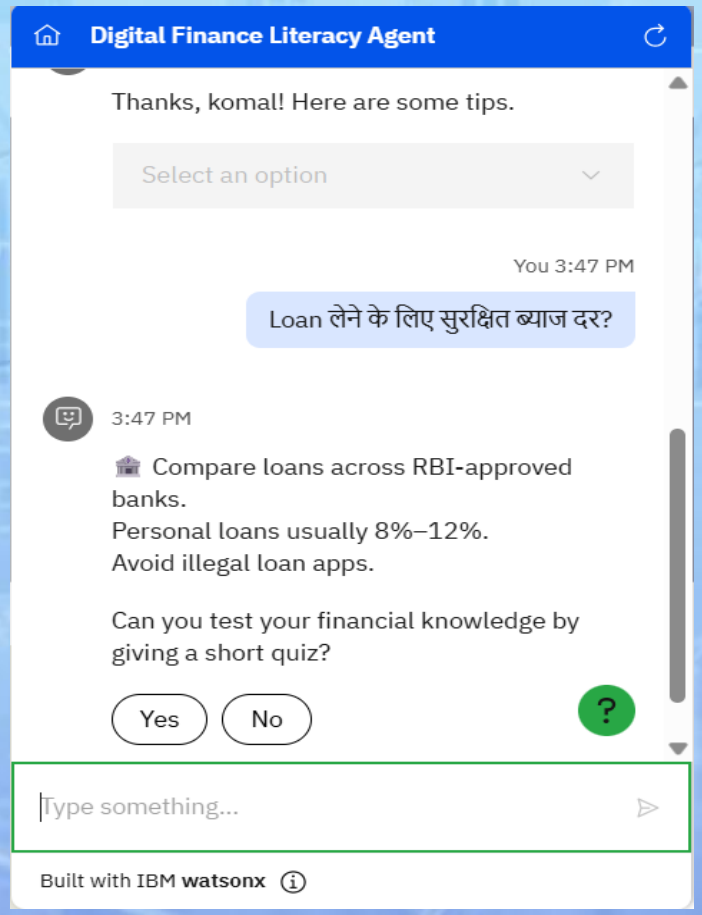
- If user refuses to take the quiz, model asks them again.



- If user answers wrong then model gives them to correct advice.



- Multilingual inputs supported (English, Hindi)



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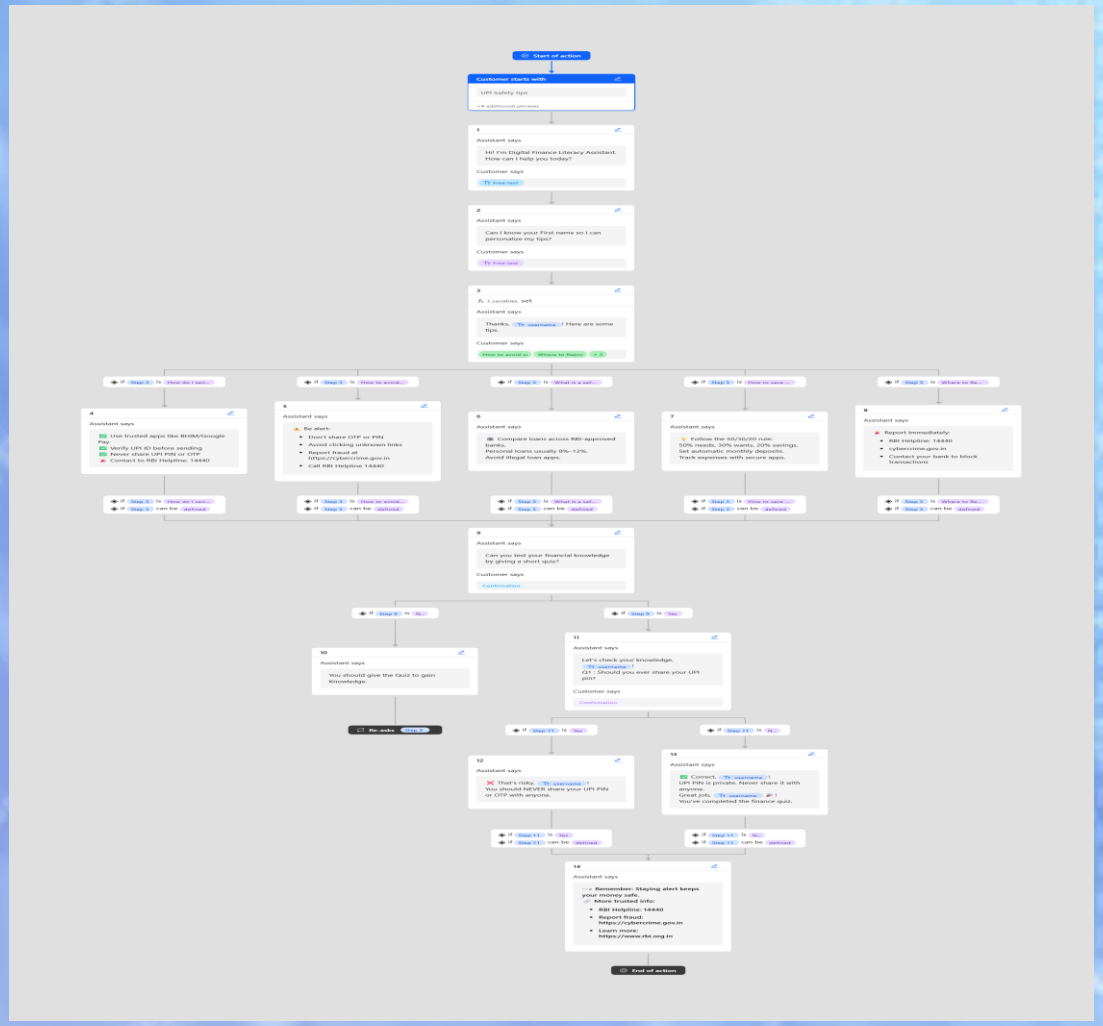
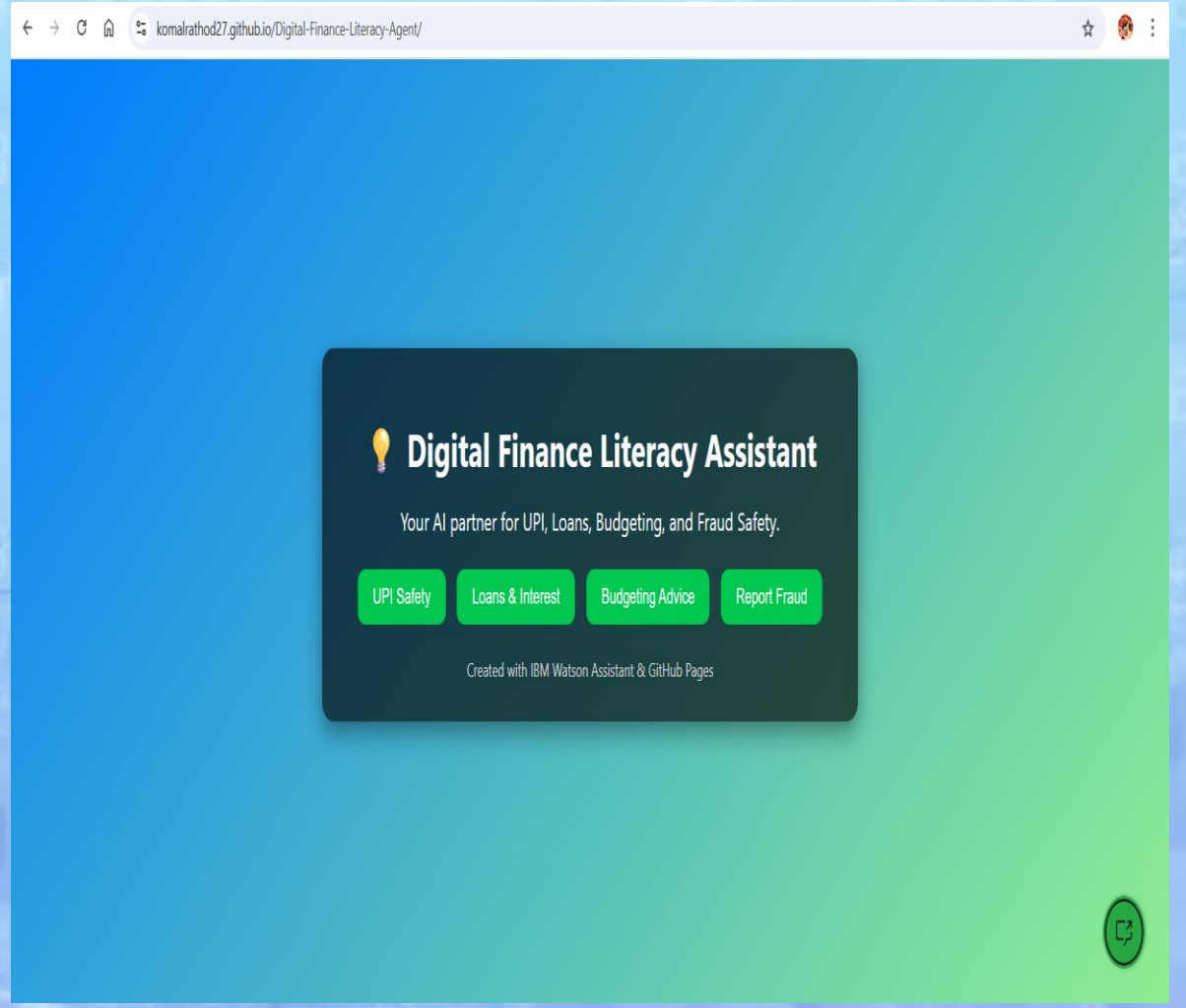
RESULT





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CONCLUSION

- The **Digital Finance Literacy Assistant** successfully demonstrates how AI can:
  - Educate users about safe financial practices
  - Support multiple languages for inclusivity
  - Provide instant responses
  - Help prevent fraud & increase confidence in digital finance

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FUTURE SCOPE

- Add voice support for less-literate users.
- Expand language support with IBM Language translator.
- Integrate with mobile apps/WhatsApp for wider search.
- Include feedback collection to continuously improve answers.
- Use Watson Discovery for real-time financial knowledge updates.

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REFERENCES

- IBM Watson Assistant Documentation
- IBM Cloud free lite plan
- Reserve Bank of India(RBI) – Digital Payments & Security guidelines
- National Centre for financial Education(NCFE)
- Digital India Program - Financial Inclusion

IBM Watson

IBM Cloud

भारतीय रिज़र्व बैंक RESERVE BANK OF INDIA

राष्ट्रीय वित्तीय शिक्षा केन्द्र National Centre for Financial Education

Digital India
Power To Empower

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IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence

Komal Rathod

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence

Issued on: Jul 09, 2025
Issued by: IBM SkillsBuild

Verify: https://www.credly.com/badges/25a5ca0c-a9d4-4302-973c-6ad31031a8b4

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IBM **SkillsBuild** Completion Certificate

This certificate is presented to

Komal Rathod

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

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THANK YOU

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