
CAPSTONE PROJECT

DIGITAL FINANCIAL LITERACY

Presented By:

Student name : Yadnesh Teli

College Name & Department :

Navinchandra Mehta Institute of Technology & Development MCA

OUTLINE

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

PROBLEM STATEMENT

Indian citizens increasingly rely on digital payments yet lack clear, trustworthy guidance on:

- Using UPI, IMPS, NEFT, RTGS, RuPay.
- Recognising OTP, QR-code and phishing scams.
- Understanding RBI regulations and interest-rate mechanics.
- Accessing government schemes such as Jan Dhan Yojana, PMJJBY, PMSBY, Atal Pension Yojana.
- Manual awareness campaigns cannot scale to India's 1.4 billion population or its 22+ major languages.

PROPOSED SOLUTION

FinAdvisor is an Agentic AI assistant that:

- Accepts natural-language queries in English, Hindi or regional languages.
- Retrieves RBI / NPCI / GOI documents via Retrieval-Augmented Generation (RAG).
- Responds with concise, India-specific guidance—never USA or other country content.
- Embeds fraud-prevention tips and directs users to cybercrime.gov.in when needed.
- Runs 24 × 7 as an API and a web chat widget.

TECHNOLOGY USED

- IBM Cloud Lite account
- Watsonx.ai Studio (Prompt & Agent Lab)
- Watsonx.ai Runtime (Lite Plan)
- IBM Granite base model → tuned with Indian finance corpus
- Vector index (in-memory for PoC) for RBI/NPCI PDFs
- LangGraph ReAct framework inside Agent Lab

IBM CLOUD SERVICES USED

Service	Purpose in Project	Plan	Region
Watsonx.ai Studio	No-code Agent Lab development	Lite	eu-gb (London)
Watsonx.ai Runtime	Foundation-model inference	Lite	eu-gb
Cloud Object Storage	Store project assets & PDFs	Lite	Global
Deployment Spaces	Serve FinAdvisor as REST API	Lite	eu-gb

WOW FACTORS

This agent will significantly reduce research time, improve the quality of literature reviews, help early-stage researchers find direction, and foster interdisciplinary collaboration by making knowledge more accessible and actionable.

Unique features:

- India-only focus: auto-refuses USA/foreign banking queries.
- Multilingual answers: English + Hindi + any Indic language supported by Granite.
- Built-in fraud shield: blocks personal-data requests and warns users instantly.
- One-click API deployment on IBM Cloud—zero DevOps.
- Produces RBI-compliant content citations on demand (future).

END USERS

- First-time UPI users in rural/urban India.
- Senior citizens needing digital-banking guidance.
- College students managing budgets.
- NGOs and CSC centres providing financial-literacy workshops.

RESULTS

Resource list - IBM Cloud | FinAdvisor — FinAdvisor | IBM | Settings | IBM watsonx | Personal Access Tokens (Classic) | Digital_Financial_Literacy_Agen | +

cloud.ibm.com/resources

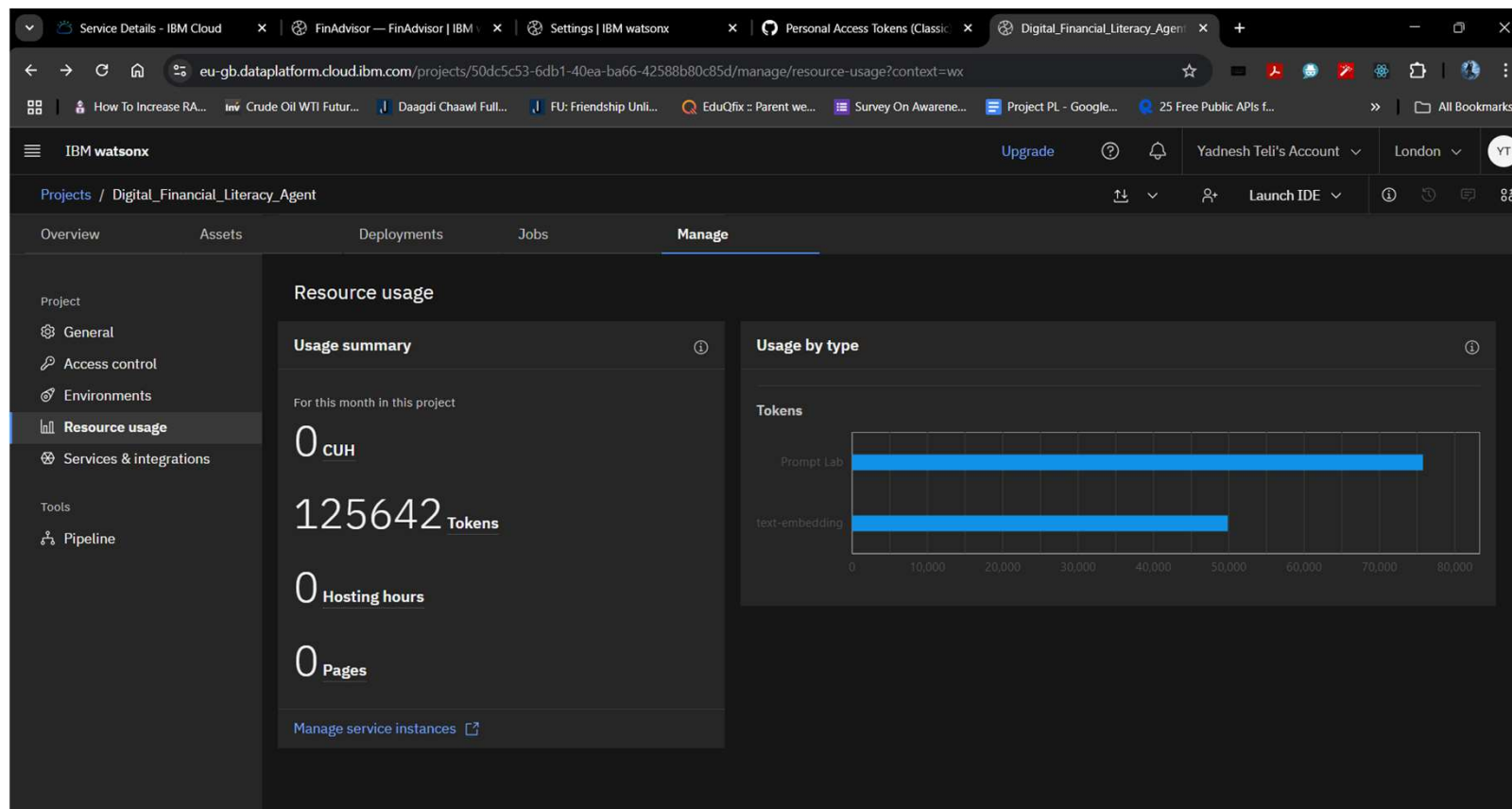
IBM Cloud | Search resources and products... | Catalog | Manage | Yadnesh Teli's Account

Resource list

Create resource +

Name	Group	Location	Product	Status	Tags
Filter by name or IP address... Filter by group... Filter... Filter... Filter... Filter...					
Compute (0)					
Containers (0)					
Networking (0)					
Storage (1)					
CloudObjectStorage	Default	Global	Cloud Object Storage	Active	cpdaas
Converged infrastructure (0)					
Enterprise applications (0)					
AI / Machine Learning (2)					
WatsonMachineLearning	Default	London (eu-gb)	watsonx.ai Runtime	Active	cpdaas
watsonx.ai Studio-2n	Default	London (eu-gb)	watsonx.ai Studio	Active	—
Analytics (0)					

RESULTS



RESULTS

Service Details - IBM Cloud

Deployments | IBM watsonx

Settings | IBM watsonx

Personal Access Tokens (Classic)

Digital_Financial_Literacy_Agent

eu-gb.dataplatform.cloud.ibm.com/ml-runtime/spaces?context=wx

How To Increase RA...Crude Oil WTI Futur...Daagdi Chaaw! Full...FU: Friendship Unli...EduQfix :: Parent we...Survey On Awarene...Project PL - Google...25 Free Public APIs f...All Bookmarks

IBM watsonx

Upgrade

Yadnesh Teli's Account

London

YT

Deployments

1 space

New deployment space +

Activity

Spaces

Filter by: All spaces

Which deployment space are you looking for?

Name	Last modified	Your role	Collaborators	Tags	Type	Online deployments	Jobs
FinAdvisor	Aug 4, 2025, 10:35 AM	Admin	YT		Development	1	0

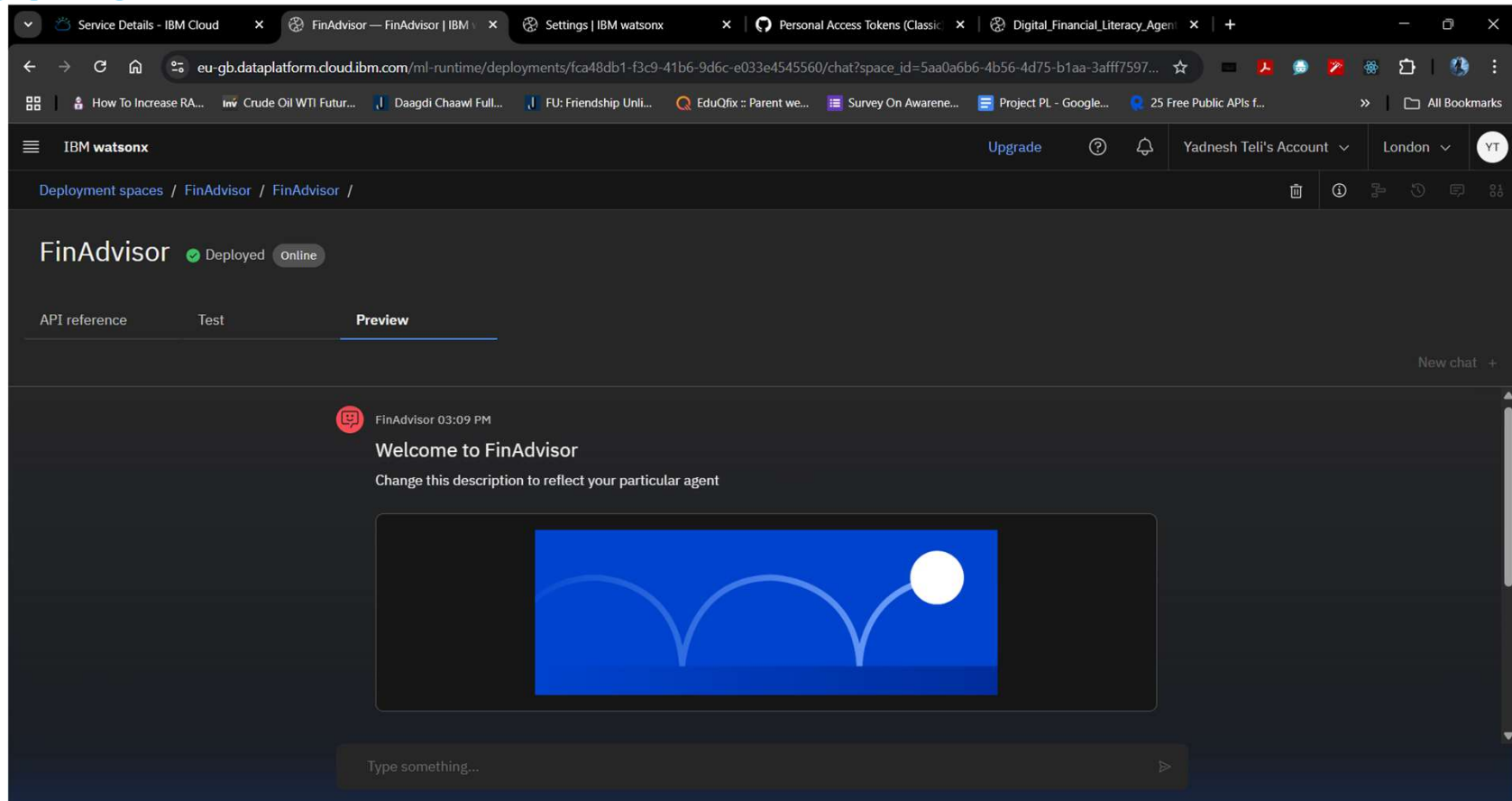
Items per page: 20

1-1 of 1 items

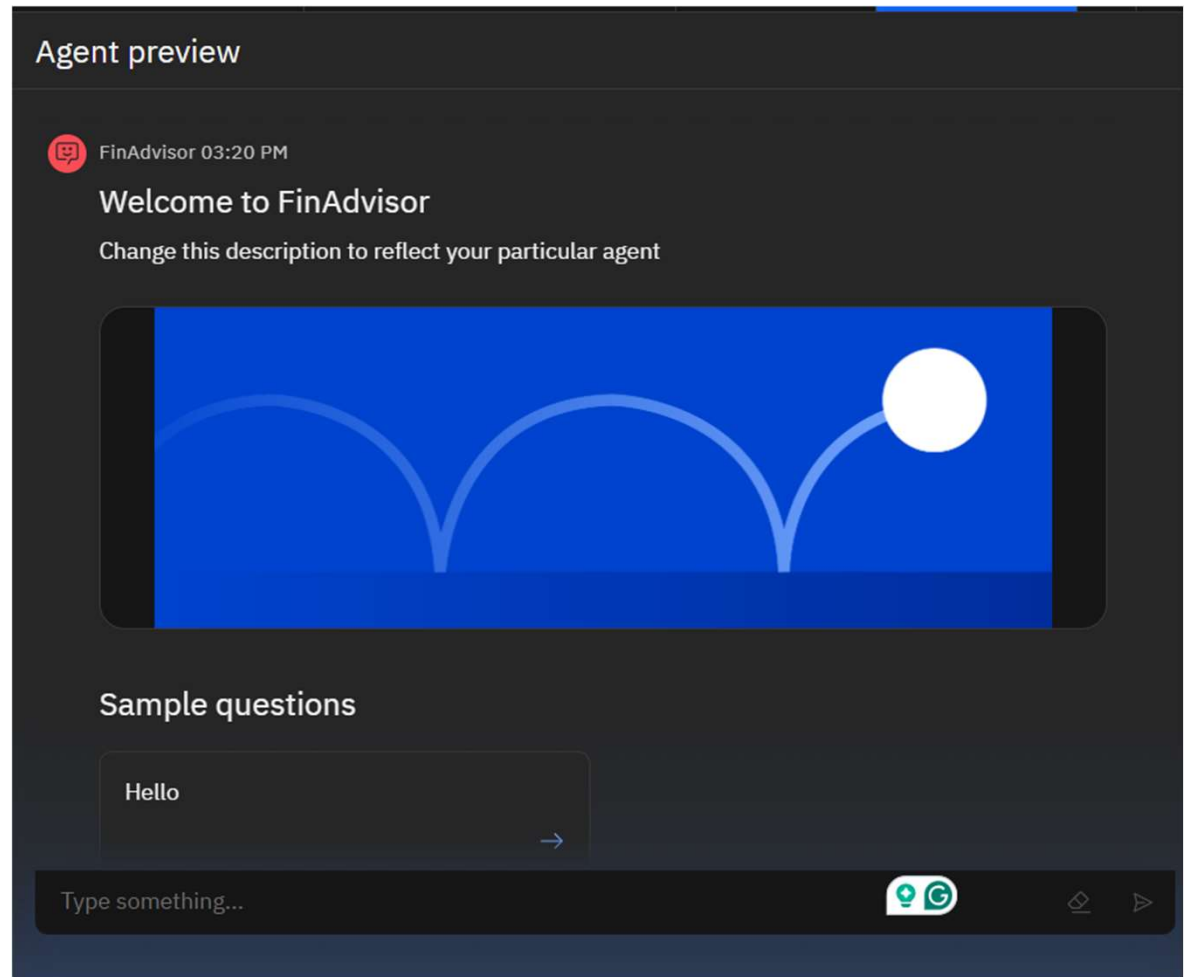
1

1 of 1 pages

RESULTS



RESULTS



RESULTS

Agent preview



You: 03:23 PM

Hello



FinAdvisor 03:23 PM

Hello! How can I assist you today?

► How did I get this answer?



You: 03:23 PM

investment tips



FinAdvisor 03:23 PM

Sure, I can help with that. Could you please provide more details about the type of investment you are interested in? For example, are you looking for tips on stocks, mutual funds, real estate, or something else?

► How did I get this answer?



You: 03:23 PM

anything



Type something...



RESULTS

YT You: 03:23 PM

anything

FinAdvisor 03:23 PM

Here are some investment tips that might help you:

1. **Set investment goals:** Identify your most important short-, medium-, and long-term financial goals.
2. **Know your investment time horizon:** This will help you determine the level of risk you're willing to take.
3. **Learn the basics:** Understand the different types of investments and the risks associated with each.
4. **Diversify your portfolio:** Don't put all your eggs in one basket. Spread your investments across different asset classes.
5. **Stay away from single stocks:** Stick to index funds, ETFs, and mutual funds.
6. **Don't check your account very often:** This can help you avoid making impulsive decisions based on short-term market fluctuations.
7. **Make sure you're on solid ground financially:** Before you start investing, make sure you have an emergency fund and are not carrying high-interest debt.
8. **Determine your goals:** What are you investing for? Retirement, a down payment on a house,

RESULTS

IBM watsonx

Upgrade ?

Yadnesh Teli's Account

London

YT

Deployment spaces / FinAdvisor / FinAdvisor /

FinAdvisor

✓ Deployed

Online

API reference

Test

Preview

New chat +

Y

You 03:10 PM

Hello

FinAdvisor 03:10 PM

Hello! How can I assist you today?

Y

You 03:10 PM


Smart investment for teenagers


FinAdvisor 03:10 PM

आपको मैं FinAdvisor मैं आपका डिजिटल वित्तीय सलाहकार समझता हूँ। मैं FinAdvisor your digital Financial Advisor

Type something...

RESULTS

 IBM watsonx

Upgrade ?  Yadnesh Teli's Account London YT

Deployment spaces / FinAdvisor / FinAdvisor /      

FinAdvisor

 Deployed Online

API reference

Test

Preview

New chat +

 You 03:10 PM

Smart investment for teenagers

 FinAdvisor 03:10 PM

नमस्ते! मैं FinAdvisor हूँ, भारत के लिए आपका डिजिटल वित्तीय साक्षरता सहायक। Hi! I'm FinAdvisor, your digital financial literacy companion for India.

आपको ज़वाब हिंदी में चाहिए, English में, या दोनों में? Would you like answers in Hindi, English, or both?

 You 03:11 PM

both



RESULTS

IBM watsonx

Upgrade ? Yadnesh Teli's Account London YT

Deployment spaces / FinAdvisor / FinAdvisor /

FinAdvisor Deployed Online

API reference Test **Preview**

New chat +

You 03:11 PM

both

FinAdvisor 03:11 PM

Here are some resources to help you get started with smart investing as a teenager:

1. [How to start investing as a teenager](#)
2. [Investing for Teens: How to Invest Money as a Teenager | Financial ...](#)
3. [Smart Investing @ The Library | Santa Clara County Library District](#)
4. [Money Smart | FDIC.gov](#)
5. [Investing for Teens: What They Should Know](#)
6. [Why afterschool programs are a smart investment](#)
7. [Zicklin School's Annual Stock Market Challenge Teaches Teens the ...](#)

Type something...

RESULTS

IBM watsonx

Upgrade ?

Yadnesh Teli's Account

London

YT

Deployment spaces / FinAdvisor / FinAdvisor /

FinAdvisor ✓ Deployed Online

API reference Test **Preview**

New chat +

Y

You 03:11 PM

Digital transaction safety

FinAdvisor 03:11 PM

Digital transaction safety is crucial in today's world where online transactions are becoming increasingly common. Here are some tips to ensure safe digital transactions:

1. Use Strong Passwords: Always use strong and unique passwords for your online accounts. A strong password should be a combination of uppercase and lowercase letters, numbers, and special characters.

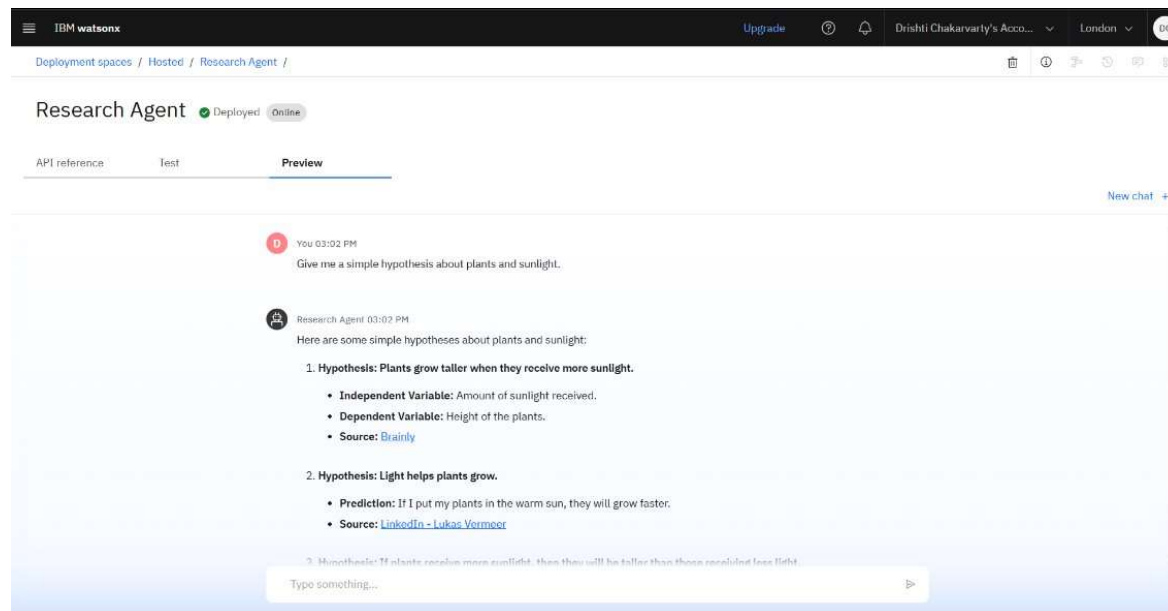
2. Enable Two-Factor Authentication (2FA): Two-factor authentication adds an extra layer of security to your online accounts. It requires you to enter a code sent to your mobile device in addition to your password.

3. Keep Your Software Up-to-Date: Regularly update your operating system, web browser, and other software to protect against security vulnerabilities.

Type something...

RESULTS

Deployed AI Agent



CONCLUSION

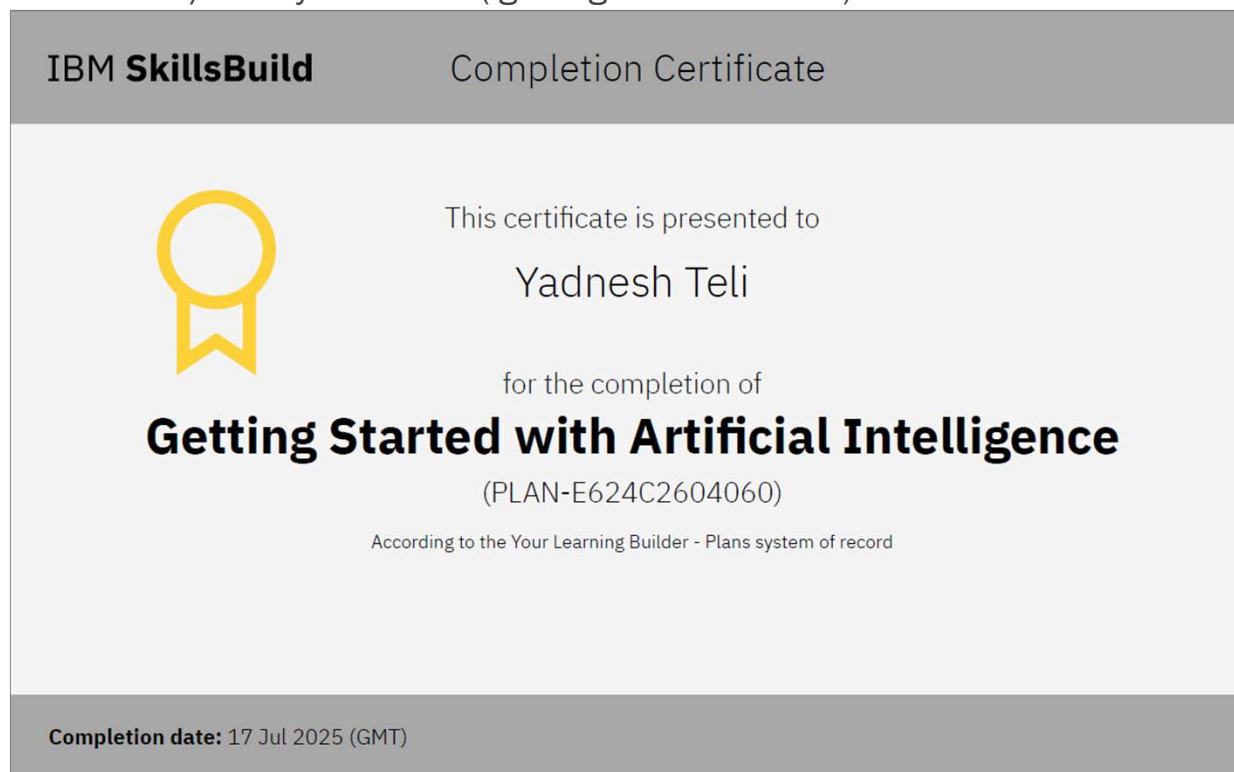
- FinAdvisor proves that a domain-focused Agentic AI can deliver accurate, safe, and localised financial advice at scale in India.
- IBM Cloud Lite stack enabled rapid prototype without extra infrastructure cost.
- The same pattern (Granite + RAG + Agent Lab) is reusable for other GOI missions.

FUTURE SCOPE

- Add voice interface via IBM Watson Speech services.
- Migrate vector store to Milvus for millions of documents.
- Integrate regional news to warn about emerging fraud tactics.
- Push notifications for RBI circular updates.
- Android mini-app for low-bandwidth regions.

IBM CERTIFICATIONS

- Screenshot/ credly certificate(getting started with AI)



RAG LAB certificate

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Yadnesh Teli

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

GITHUB LINK

- <https://github.com/YadneshTeli/FinAdvisor>

THANK YOU