
CAPSTONE PROJECT

AI AGENT FOR DIGITAL FINANCIAL LITERACY

Presented By:

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OUTLINE

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

PROBLEM STATEMENT

- Many individuals struggle to understand and navigate essential financial tools and practices in the digital age.
- There is a lack of accessible and reliable information on topics like UPI, online scams, interest rates, and personal finance.
- This knowledge gap leads to financial insecurity, vulnerability to fraud, and a lack of confidence in digital finance.

Proposed Solution:

The RAG-powered AI Agent helps users understand digital financial tools and practices by retrieving reliable information from government portals, banking websites, and educational platforms.

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

WOW FACTORS

✓ **Diverse Knowledge Base:** Provides information on a range of topics, including:

- Using UPI for payments.
- Avoiding online scams and fraud.
- Understanding interest rates and loan terms.
- Personal finance management and budgeting.

Multilingual Support: Allows users to interact in their preferred language, ensuring accessibility for diverse backgrounds.

- **Culturally Inclusive:** Delivers personalized and culturally relevant financial guidance.
- **Intuitive Q&A:** Answers user questions directly, such as:
 - “How do I send money via UPI?”
 - “What is a safe interest rate for a loan?”

END USERS

Individuals from diverse backgrounds, including those new to digital banking, students, and professionals seeking to improve their financial knowledge.

Impact:

- ❖ **Empowerment:** Equips users with essential knowledge.
- ❖ **Protection:** Helps users protect themselves from fraud.
- ❖ **Confidence:** Builds confidence in using digital financial services.
- ❖ **Accessibility:** Makes financial literacy accessible, personalized, and culturally inclusive.

RESULTS

Agent preview

Finance Advisor 09:17 PM

Welcome to Finance Advisor

Aim to develop an intelligent virtual assistant that enhances financial awareness and digital safety



Sample questions

How do I budget my monthly expenses?



What is the 50-30-20 budgeting rule?



what do you know about stocks?



what do you know about SIP?



Type something...



Agent preview

Finance Advisor 09:21 PM

To budget your monthly expenses, you can follow these steps:

1. Estimate your monthly income.
2. Identify and estimate your monthly expenses.
3. Compare your income and expenses to see where you can make adjustments.
4. Create a plan for how you'll spend your money each month.
5. Track your spending throughout the month to stay on track.

You can also use the 50/30/20 rule as a guideline, where 50% of your income goes towards needs, 30% towards wants, and 20% towards savings and debt paydown.

Additionally, you can use online budgeting tools or spreadsheets to help you track your expenses and stay organized. It's also important to review and adjust your budget regularly to ensure you're on track with your financial goals.

Some recommended budgeting categories include:

- Housing
- Transportation
- Food
- Insurance
- Debt repayment
- Entertainment
- Savings

Remember to be explicit about your goals and include them as line items in your budget. Ideally, you want to put money toward them each month, just as you earmark money for necessities like rent and utilities.

► How did I get this answer?



Type something...



RESULTS

Projects / Rudrakshi's sandbox / Agent Lab

Share feedback β Unsaved New agent + Deploy

Build

AI Model: llama-3-3-70b-instruct

Setup




Name

Financial Advisor

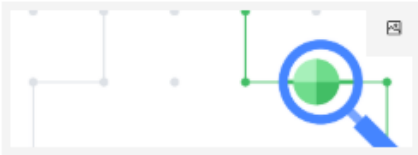
Description 100/100

Aim to develop an intelligent virtual assistant that enhances financial awareness and digital safety

Icon





Placeholder image



Quick start questions

Add up to 4 quick start questions that your users can select. +

How do I budget my monthly expenses? 

What is the 50-30-20 budgeting rule? 

Agent preview

RS You: 08:43 PM

How do I budget my monthly expenses?

Financial Advisor 08:43 PM

Here are some tips for budgeting your monthly expenses:

1. Estimate your monthly income and identify your monthly expenses.
2. Compare your income and expenses to see where you can make adjustments.
3. Create a budget plan that allocates 50% of your income towards needs, 30% towards wants, and 20% towards savings and debt paydown.
4. Be explicit about your goals and include them as line items in your budget.
5. Use a budgeting tool or spreadsheet to track your expenses and stay on top of your finances.



Some recommended budgeting categories include:

- Housing
- Transportation
- Food
- Insurance
- Debt repayment
- Entertainment
- Savings

Remember to review and adjust your budget regularly to ensure you're on track with your financial goals.

Sources:

- Division of Financial Regulation: Creating a personal budget

Type something...  

edunet
foundation

RESULTS

Projects / Rudrakshi's sandbox / Agent Lab

Share feedback β Unsaved 📁 New agent + Deploy 🚀

Build

AI Model: llama-3-3-70b-instruct 🔄 <

Setup




Name

Finance Advisor


Description 100/100

Aim to develop an intelligent virtual assistant that enhances financial awareness and digital safety

Icon



Placeholder image



Quick start questions

Add up to 4 quick start questions that your users can select. +


How do I budget my monthly expenses? 🗑️

What is the 50-30-20 budgeting rule? 🗑️

what do you know about stocks? 🗑️


Agent preview

What is the 50-30-20 budgeting rule?


 Finance Advisor 09:23 PM

The 50-30-20 budgeting rule is a popular budgeting framework that divides your net income into three categories: 50% for needs, 30% for wants, and 20% for savings and debt repayment. This rule helps individuals allocate their income towards necessary expenses, discretionary spending, and long-term financial goals. It's a simple and effective way to manage your finances and achieve financial stability.

► How did I get this answer?

 You: 09:23 PM

row

 Finance Advisor 09:23 PM


The 50-30-20 budgeting rule is a popular budgeting framework that divides your net income into three categories: 50% for needs, 30% for wants, and 20% for savings and debt repayment. This rule helps individuals allocate their income towards necessary expenses, discretionary spending, and long-term financial goals. It's a simple and effective way to manage your finances and achieve financial stability.



For example, if you earn \$4,000 per month, you would allocate:

- 50% (\$2,000) towards needs such as rent, utilities, groceries, and transportation
- 30% (\$1,200) towards wants such as entertainment, hobbies, and travel
- 20% (\$800) towards savings and debt repayment such as paying off credit cards, building an emergency fund, and retirement savings

It's important to note that this is just a guideline, and you may need to adjust the proportions based on your individual circumstances. Additionally, it's a good idea to review and adjust your budget regularly to ensure you're on track with your financial goals.

► How did I get this answer?





RESULTS

Deployed AI Agent

The screenshot displays the IBM watsonx user interface. At the top, the navigation bar includes the IBM watsonx logo, an 'Upgrade' button, a help icon, a notification bell, and the user's account information: 'Rudrakshi Singh's Account', 'Dallas', and a profile icon labeled 'RS'. Below the navigation bar, the breadcrumb trail reads 'Deployment spaces / Agentic_AI_01 / Sous Chef /'. The main content area is titled 'Sous Chef' with a green checkmark and the status 'Deployed Online'. It features four tabs: 'API reference', 'Test', 'Evaluations', and 'Preview', with the 'Preview' tab currently selected. The preview content shows a response to a query about ROI, listing various business and finance applications. A 'New chat +' button is located to the right of the preview content. On the right side of the interface, a sidebar titled 'About this deployment' provides detailed information about the agent, including its name, description, deployment ID, serving name, software and hardware specifications, and associated assets.

IBM watsonx Upgrade ? Bell Rudrakshi Singh's Account Dallas RS

Deployment spaces / Agentic_AI_01 / Sous Chef /

Sous Chef ✓ Deployed Online

API reference Test Evaluations **Preview**

ROI can be applied to various aspects of business and finance, such as:

- Financial investments (e.g., stocks, bonds, real estate)
- Marketing campaigns
- Project management
- Business expansion
- Training and development programs

A higher ROI indicates a more efficient use of resources, while a lower ROI may indicate that an investment is not generating sufficient returns.

► How did I get this answer?

Type something...

About this deployment ✕

Name ✎
Sous Chef

Description ✎
Generating tasty recipe ideas based on the ingredients they have available.

Deployment Details

Deployment ID: 67700a5f-311c-4b...

Serving name: ✎
No serving name.

Software specification: ✎
runtime-24.1-py3.11 ⚙️

Hardware specification: ✎
Extra extra small: 1 CPU and 2 GB RAM

Copies: ✎
1

Tags ✎
wx-agent

Associated asset ✎
Sous Chef

CONCLUSION

- Leverages RAG to bridge the financial knowledge gap.
- Provides reliable, multilingual, and personalized information.
- Empowers users with confidence.
- Protects them from common pitfalls in the digital financial world.

FUTURE SCOPE

- **Integration with Financial Planning Tools:** Connect with budgeting and investment apps for a seamless user experience.
- **AI-Assisted Financial Goal Setting:** Help users set and track personal financial goals.
- **Interactive Simulations:** Provide a safe environment for users to practice financial scenarios like investing or loan management.
- **Partnerships with Financial Institutions:** Collaborate with banks and financial advisors to offer direct, expert guidance.

GITHUB LINK

- Git hub link: <https://github.com/rudrakshisingh16/AI-Agent-for-Digital-Financial-Literacy.git>

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Rudrakshi Singh

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 23, 2025
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/31c57a88-a58b-4714-8a89-8fb120c93d87>



IBM SkillsBuild

Completion Certificate



This certificate is presented to

Rudrakshi Singh

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 27 Jul 2025 (GMT)

Learning hours: 20 mins

In recognition of the commitment to achieve
professional excellence



Rudrakshi Singh

Has successfully satisfied the requirements for:

Journey to Cloud: Envisioning Your Solution



Issued on: Jul 27, 2025
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/c5556e0a-dba5-4bd0-88c4-39e9b39ecb92>





THANK YOU