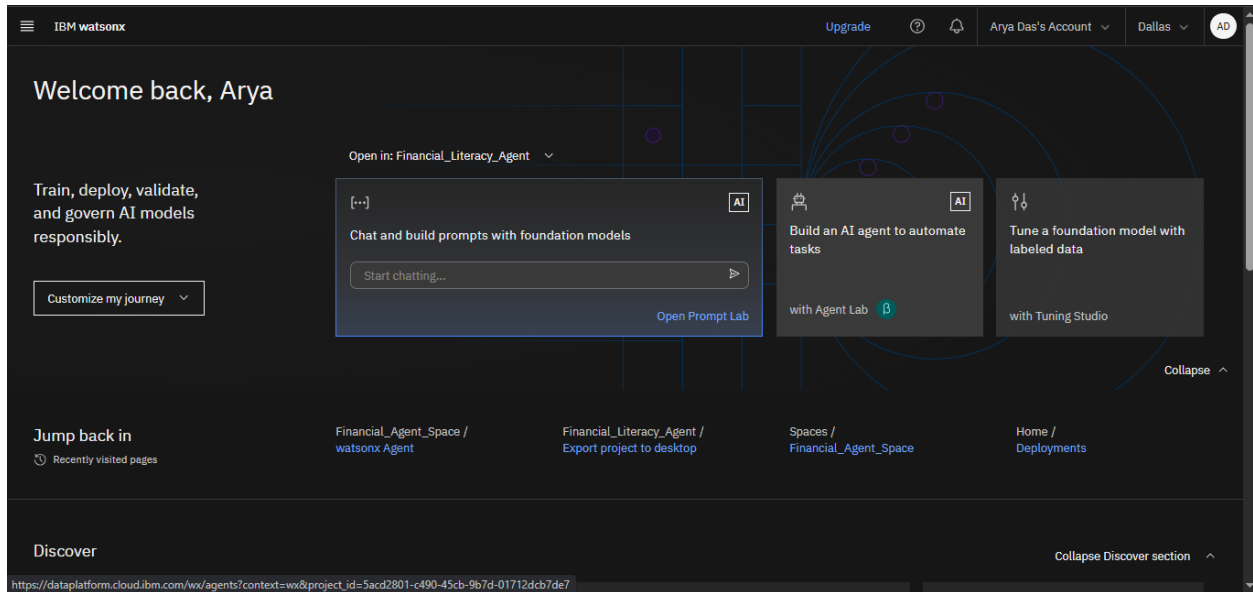
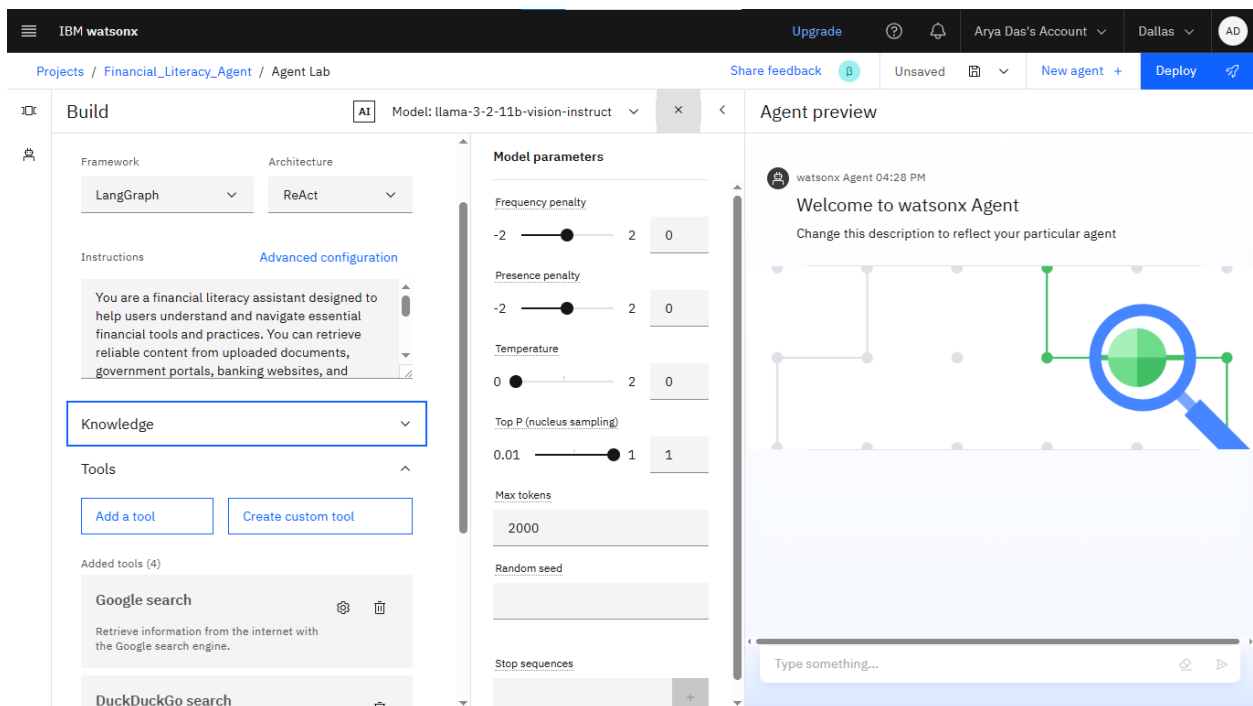


The steps to complete the Final Project

❖ Build an AI Agent:



❖ Model Parameter:



❖ Chat Outputs:

IBM watsonx

Upgrade ? Arya Das's Account Dallas AD

Projects / Financial_Literacy_Agent / Agent Lab

Share feedback β Unsaved New agent + Deploy

Build

AI Model: llama-3-2-11b-vision-instruct

Knowledge

Vector index [Clear chat](#)

Select or create vector index

If you want to add a vector index to the agent, clear the agent preview chat.

Tools

[Add a tool](#) [Create custom tool](#)

Added tools (4)

- Google search**
Retrieve information from the internet with the Google search engine.
- DuckDuckGo search**
Retrieve information from the internet with the DuckDuckGo search engine.
- Wikipedia search**
Retrieve information from Wikipedia articles.

Agent preview

You: 04:20 PM
How do I send money via UPI?

watsonx Agent 04:20 PM
To send money via UPI, you can follow these steps:

1. Open Google Pay on your mobile device.
2. Search for the receiver's VPA, UPI ID, or phone number at the top search bar.
3. Select the receiver.
4. After selecting the receiver, you can initiate the transaction via UPI.

You can also use other UPI apps like BHIM, iMobile, or HDFC Bank's UPI app to send money. Additionally, you can use services like Remitly, Xoom, or Wise to send money to UPI IDs in India.

Please note that you should be cautious when sending money to unknown recipients, and make sure to verify the recipient's details before initiating the transaction.

► How did I get this answer?

Type something...

IBM watsonx

Upgrade ? Arya Das's Account Dallas AD

Projects / Financial_Literacy_Agent / Agent Lab

Share feedback β Unsaved New agent + Deploy

Build

AI Model: llama-3-2-11b-vision-instruct

Setup

Configuration

Framework: **LangGraph** Architecture: **ReAct**

Instructions

[Advanced configuration](#)

You are a financial literacy assistant designed to help users understand and navigate essential financial tools and practices. You can retrieve reliable content from uploaded documents, government portals, banking websites, and educational platforms to answer questions about UPI, online scams, interest rates, budgeting, and personal finance management. You support multiple

Knowledge

Tools

[Add a tool](#) [Create custom tool](#)

Added tools (4)

- Google search**

Agent preview

You: 04:31 PM
What is a safe interest rate for a loan?

watsonx Agent 04:31 PM
The safe interest rate for a loan can vary depending on the type of loan, the lender, and the borrower's creditworthiness. However, some general guidelines can be found in the search results.

For example, the Wisconsin Department of Natural Resources provides a guide to interest rates for loans, which includes a table showing the determination of the loan interest rate by project type, based on the current market rate.

SAFE Federal Credit Union offers low-interest loans, including auto loans and personal loans, with rates as low as 6.24% APR for 84 months.

The Consumer Financial Protection Bureau provides a safe harbor for loans that are not higher-priced covered transactions, which includes a fixed interest rate and permits interest-only payments.

The California State Water Resources Control Board provides information on the interest rate for Drinking Water State Revolving Fund loans, which is half of the current market rate.

The USDA provides information on single-family housing direct home loans, which have a fixed interest rate based on current market rates at loan approval or loan closing, whichever is lower.

Type something...

❖ Save the model:

Projects / Financial_Literacy_Agent / Agent Lab

Share feedback β Unsaved 📁 New agent + Deploy

Save your work

Specify how to save your work by selecting an asset type and defining details.

Asset type

Agent ✔
Save as an editable agent asset that can be reopened in this tool.

Standard notebook
Save the current agent as a notebook.

Deployment notebook
Save a notebook that can deploy your agent as an AI service.

Define details

Name
watsonx Agent

Description (optional)
Change this description to reflect your particular agent

☐ View in project after saving ⓘ

Cancel Save

❖ Saved agent:

IBM watsonx Upgrade ⓘ Arya Das's Account Dallas AD

Projects / Financial_Literacy_Agent / watsonx Agent Share feedback β Autosave on 📁 New agent + Deploy 🔗 ⓘ

Saved agents

From Financial_Literacy_Agent

watsonx Agent
Change this description to reflect your particular agent

Build

Model: llama-3-2-11b-vision-instruct

Setup

Configuration

Instructions

Knowledge

Tools

Framework

Architecture

LangGraph

ReAct

You are a financial literacy assistant designed to help users understand and navigate essential financial tools and practices. You can retrieve reliable content from uploaded documents, government portals, banking websites, and educational platforms to answer questions.

Agent preview

watsonx Agent 04:35 PM

Welcome to watsonx Agent

Change this description to reflect your particular agent

Type something...

❖ Create API Key:

The screenshot shows the IBM watsonx user interface. At the top, there's a navigation bar with 'IBM watsonx', 'Upgrade', a help icon, a bell icon, 'Arya Das's Account', 'Dallas', and a user profile icon 'AD'. Below the navigation bar, the user's profile 'Arya Das' is shown with email 'aryadasmid@gmail.com' and a link to 'Edit IBMId profile'. A 'Dark theme on' toggle is visible. The 'User API key' tab is selected in the sidebar. A green success message states: 'User API key is successfully created. Your new key is stored in IBM watsonx and IBM Cloud.' Below this, a section titled 'User API key' explains its purpose and provides a 'Learn more' link. A table lists the API keys with columns for Name, Creation date, and Status. One key is listed: 'cpd-apikey-IBMId-697000Z9ES-2025-07-31T11:08:02Z' created on 'July 31, 2025 at 4:38:02 PM' with status 'Active'. Action buttons like 'Rotate' and 'Delete' are visible for the key.

IBM watsonx Upgrade ? ? Arya Das's Account Dallas AD

Arya Das
aryadasmid@gmail.com
[Edit IBMId profile](#)

Profile Git integrations **User API key**

✓ **User API key is successfully created.**
Your new key is stored in IBM watsonx and IBM Cloud.

User API key
A user API key is required to authenticate runtime operations in IBM watsonx.
Rotate keys as needed to create a new key and phase out the current key. [Learn more](#)

Name	Creation date	Status
cpd-apikey-IBMId-697000Z9ES-2025-07-31T11:08:02Z	July 31, 2025 at 4:38:02 PM	Active

❖ New deployment space:

The screenshot shows the 'Create a deployment space' form in the IBM watsonx interface. The header includes the same navigation bar as the previous screenshot. The main heading is 'Create a deployment space' with a subtitle 'Use a space to collect assets in one place to create, run, and manage deployments'. On the left, there's a sidebar with '+ New' and 'Local file'. The 'Define details' section contains several fields: 'Name' (filled with 'Financial_Agent_Space'), 'Description (Optional)' (0/100 characters, placeholder text 'What's the purpose of this space?'), 'Deployment stage' (dropdown menu, 'Development' selected), 'Tags (optional)' (dropdown menu, 'Find or create tags' selected), 'Storage' (dropdown menu, 'CloudObjectStorage' selected), and 'watsonx.ai Runtime (optional)' (dropdown menu, 'WatsonMachineLearning' selected). A note states: 'Space will include integration with Cloud Object Storage for storing space assets.' At the bottom right, there are 'Cancel' and 'Create' buttons.

IBM watsonx Upgrade ? ? Arya Das's Account Dallas AD

Create a deployment space
Use a space to collect assets in one place to create, run, and manage deployments

+ New
Local file

Define details

Name
Financial_Agent_Space

Description (Optional) 0/100
What's the purpose of this space?

Deployment stage ⓘ
Development

Tags (optional)
Find or create tags

Add tags to make assets easier to find

Storage
CloudObjectStorage
Space will include integration with Cloud Object Storage for storing space assets.

watsonx.ai Runtime (optional)
WatsonMachineLearning

Cancel Create

❖ Deployment:

The screenshot shows the IBM watsonx interface for the 'Financial_Agent_Space'. The 'Deployments' tab is active, displaying a table with the following data:

Name	Type	Status	Asset	Asset type	Tags	Last modified
watsonx Agent	Online	Deployed	watsonx Agent	Ai service	wx-agent	50 seconds ago Arya Das (You)

At the bottom, it indicates 'Items per page: 20' and '1-1 of 1 items'.

❖ API Reference:

The screenshot shows the IBM watsonx interface for the 'watsonx Agent' API reference. The 'API reference' tab is active, displaying the following information:

Endpoints for inferencing

Private endpoint

- `https://us-south.ml.cloud.ibm.com/ml/v4/deployments/cc4ff7db-f6d7-4cb3-b15b-fadf3bd5ed5d/ai_service?version=2021-05-01`
- `https://us-south.ml.cloud.ibm.com/ml/v4/deployments/cc4ff7db-f6d7-4cb3-b15b-fadf3bd5ed5d/ai_service_stream?version=2021-05-01`

Public endpoint

- `https://us-south.ml.cloud.ibm.com/ml/v4/deployments/cc4ff7db-f6d7-4cb3-b15b-fadf3bd5ed5d/ai_service?version=2021-05-01`
- `https://us-south.ml.cloud.ibm.com/ml/v4/deployments/cc4ff7db-f6d7-4cb3-b15b-fadf3bd5ed5d/ai_service_stream?version=2021-05-01`

[Learn more about the 2021-05-01 version query parameter](#)

Code snippets

Available languages: cURL, Java, JavaScript, Python, Scala.

NOTE: you must set \$API_KEY below using information retrieved from your IBM Cloud account (<https://dataplatform.cloud.ibm.com/docs/content/wsj/analyze-data/m...>)

❖ Previews:

The screenshot shows the IBM watsonx Agent interface. At the top, there's a navigation bar with "IBM watsonx", an "Upgrade" button, and user information "Arya Das's Account" and "Dallas". Below this is a breadcrumb trail: "Deployment spaces / Financial_Agent_Space / watsonx Agent /". The main header displays "watsonx Agent" with a green "Deployed" status and an "Online" indicator. A tab bar at the bottom of the header includes "API reference", "Test", "Evaluations", and "Preview" (which is selected). On the right, there's a "New chat +" button. The chat area shows a conversation starting at 05:06 PM. The user asks, "What are the best practices for managing personal finances?". The agent responds with a message stating that tools are unable to provide the requested information but can offer general tips. It then lists six numbered tips: 1. Create a budget, 2. Prioritize needs over wants, 3. Build an emergency fund, 4. Pay off high-interest debt, 5. Invest for the future, and 6. Monitor and adjust. The agent concludes by suggesting consultation with a financial advisor. At the bottom, there's a text input field with the placeholder "Type something..." and a send button.

This screenshot shows the IBM watsonx Agent interface with a different chat conversation and an expanded sidebar. The navigation bar and breadcrumb trail are identical to the first screenshot. The main header shows "watsonx Agent" as "Deployed" and "Online". The "Preview" tab is selected. The chat area shows a conversation starting at 05:02 PM. The user asks, "What are the common signs of an online scam?". The agent responds with a message stating "Common signs of an online scam include:" followed by a list of 10 numbered signs: 1. Unsolicited contact, 2. Stolen images, 3. Lack of personal information, 4. Compliments, 5. Requests for money, 6. Promises of a future meeting, 7. Pressure to keep the relationship a secret, 8. Poor grammar and spelling, 9. Urgency, and 10. Threats. The agent concludes by advising caution when interacting with strangers online. The sidebar on the right, titled "About this deployment", contains the following information: Name (watsonx Agent), Description (Change this description to reflect your particular agent), Deployment Details (Deployment ID: cc4ff7db-f6d7-4c..., 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 (vx-agent), Associated asset (watsonx Agent, 54c0e0f5-fc32-4364-83ab-cf38a7bf3444), Last modified (7 minutes ago), and Created on (Jul 31, 2025). At the bottom, there's a text input field with the placeholder "Type something..." and a send button.

❖ Creating RAG:

Ground gen AI with vectorized documents

Add documents to vectorize and create a vector index in memory. Otherwise, select your vector database and specify index details.

Vector stores

- In memory
- watsonx.data Milvus
- Elasticsearch

Drop data files or browse to upload

Add PPTX, DOCX, PDF, or TXT files or select from project.

Add up to 300 MB with PPTX files, 50 MB of PDF files, 50 MB of DOCX files, or 5 MB with TXT and other files.

Browse

Select from project

Personal_Finance.docx
251.4KB

Name

Finance_Knowledge_Base

Description (optional)

What's the purpose of this vector index?

Advanced settings

Cancel

Create

❖ Agentic RAG Outputs:

Agent preview

AD You: 05:26 PM

How do I send money using UPI?

watsonx Agent 05:26 PM

To send money using UPI, you can follow these steps:

1. Open the Google Pay app on your mobile device.
2. Search for the receiver's VPA (Virtual Payment Address), UPI ID, or phone number at the top search bar.
3. Select the receiver.
4. Enter the amount you want to send.
5. Confirm the transaction.

You can also use other UPI-enabled apps like Paytm, PhonePe, or BHIM to send money to UPI IDs.

Additionally, you can use services like Xoom, Remitly, or Wise to send money to UPI IDs from outside India.

It's essential to note that UPI transactions are secure and instant, and you can use UPI Lite for payments up to ₹1,000 INR each.

Please ensure you have the necessary information and follow the instructions provided by the service you choose to send money using UPI.

► How did I get this answer?

type something...

Agent preview

AD You: 05:28 PM

How can I create a monthly budget?

watsonx Agent 05:28 PM

To create a monthly budget, you can follow these steps:

1. Make a list of your bills and other expenses and the amounts.
2. Use your pay stubs to write down how much money you make.
3. Estimate your monthly income.
4. Identify and estimate your monthly expenses.
5. Compare your income and expenses to create a budget plan.
6. Use a budget calculator or template to simplify the process.
7. Track your spending and adjust your budget as needed.

type something...