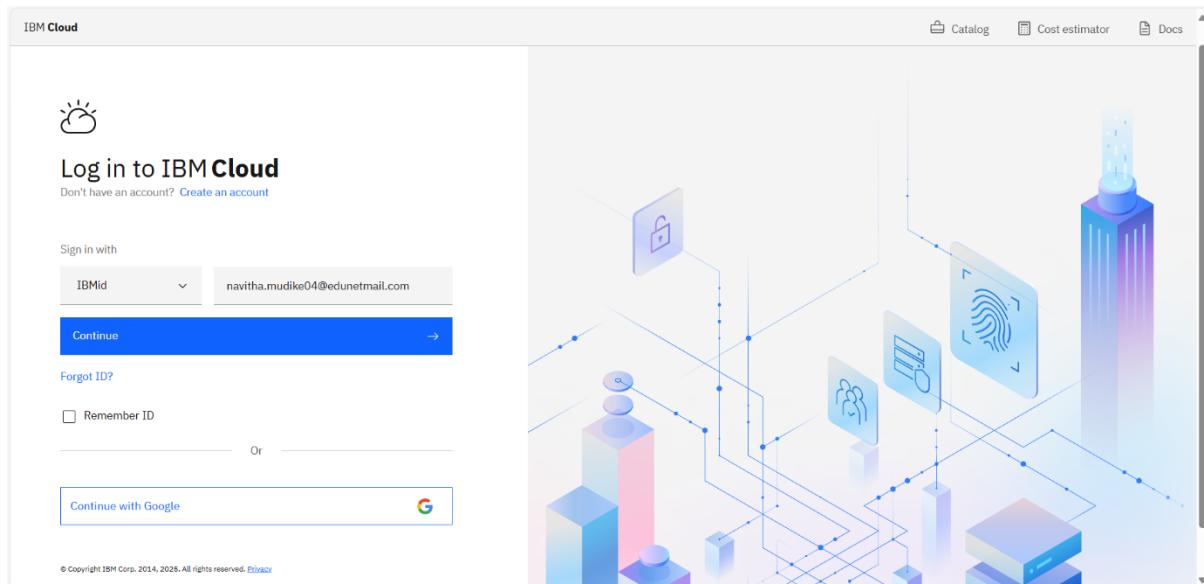


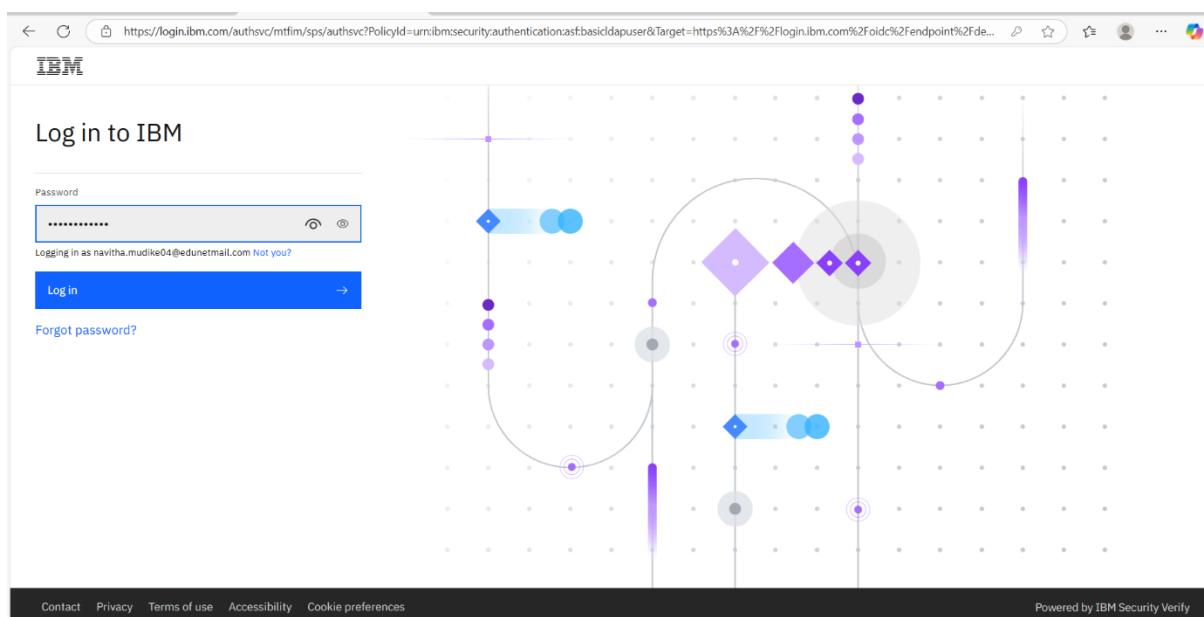
Agentic AI on IBM Cloud

(AI- Nutrition Agent)

Step1: Open IBM Cloud login page using the link cloud.ibm.com, enter your Gmail and click on Continue.



Step2: Enter your password click on login.



Step3: IBM Cloud Dashboard.

The screenshot shows the IBM Cloud Dashboard. At the top, there's a navigation bar with links for Catalog, Manage, and account information. Below the navigation is a search bar labeled "Search resources and products...". The main area is titled "Dashboard" and contains several service cards:

- Build**: Explore IBM Cloud with this selection of easy starter tutorials and services. (Recommended)
- Track emissions with Carbon Calculator**: View estimated greenhouse gas emissions for your IBM Cloud account and export data for ESG reporting. (1 min)
- Use Watson Assistant**: Watson Assistant lets you build conversational interfaces into any application, device, or channel. (Popular)
- Use Watson Studio**: Watson Studio provides a suite of tools and a collaborative environment for data scientists, developers and domain experts. (2 min)
- Build with Watson**: Chatbots, insights, recognizers, and more. Explore the AI platform for business. (Popular)
- Retrieval Augmented Generation (RAG) Pattern**: Create a secure and trustworthy deployment of generative AI applications on IBM Cloud. (3 min)

Below the cards, there are sections for "IBM Cloud status", "Recent support cases", "Planned maintenance", and "Total emissions".

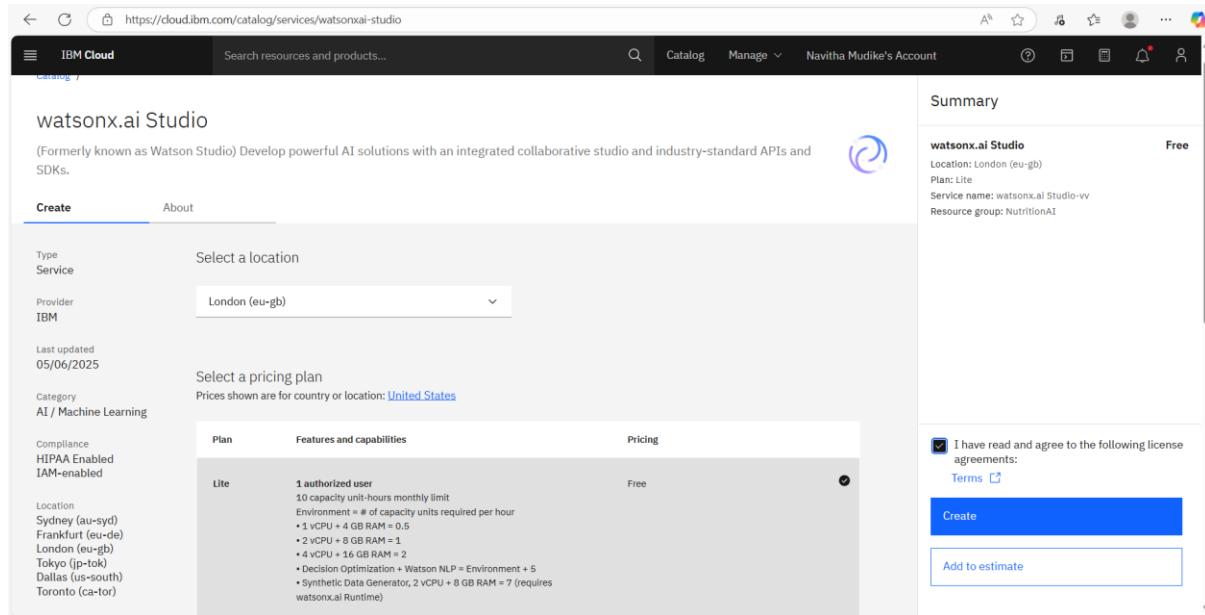
Step-4 Now click on the Search bar and write “Watsonx.ai Studio”.

The screenshot shows the IBM Cloud Catalog Results page with the search term "watsonx.ai studio" entered in the search bar. The results section is titled "Catalog Results" and shows the following items:

- watsonx.ai Studio**: Service
- watsonx**: Service
- NeuralSeek**: Service
- Cloud automation for watsonx.ai**: Software
- Watsonx.ai SaaS with Assistant and Governance**: Software

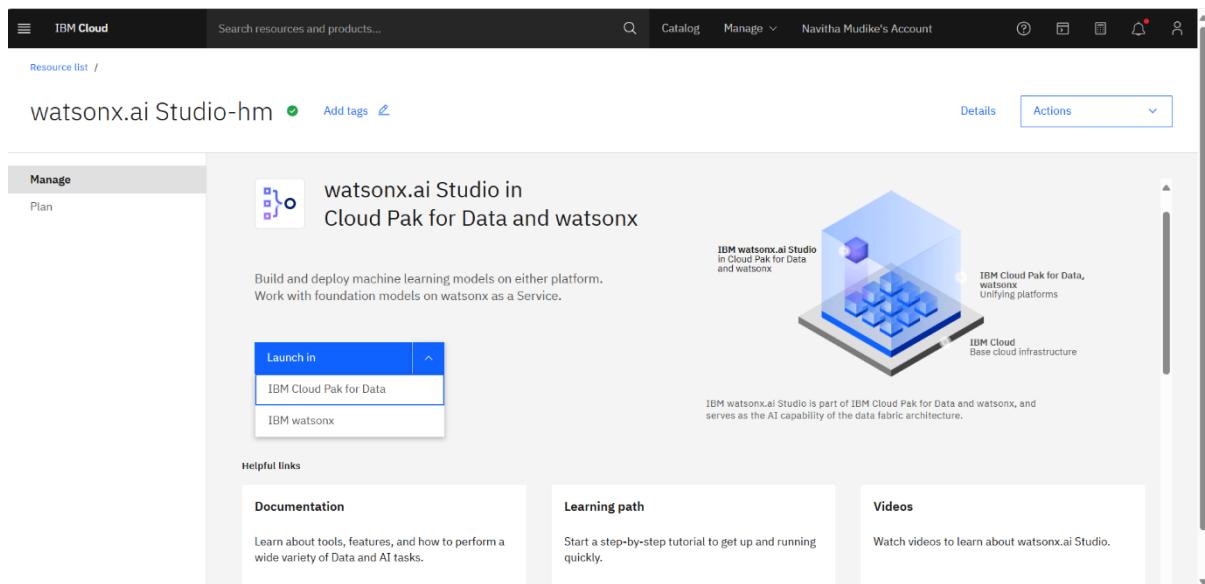
Below the catalog results, there are sections for "IBM Cloud status", "Recent support cases", "Planned maintenance", and "Total emissions".

Step-5 Now select the Region as London and then click on Create.



The screenshot shows the IBM Cloud Catalog interface for creating a Watsonx.ai Studio service. The 'Create' tab is selected. In the 'Select a location' section, 'London (eu-gb)' is chosen from a dropdown. Below it, the 'Select a pricing plan' section shows the 'Lite' plan is free. A table details the features and capabilities of the Lite plan. On the right, a summary box shows the service name is 'watsonx.ai Studio-vv', located in London, and the resource group is 'NutritionAI'. A checkbox for accepting license agreements is checked, and the 'Create' button is visible.

Step-6 Now click on the Dropdown and then select IBM watsonx.



The screenshot shows the details page for a Watsonx.ai Studio service named 'watsonx.ai Studio-hm'. The 'Actions' tab is selected. On the left, a sidebar shows 'Manage Plan'. The main content area displays the service's purpose: 'Build and deploy machine learning models on either platform. Work with foundation models on watsonx as a Service.' It features a diagram showing 'IBM Watsonx AI Studio in Cloud Pak for Data and watsonx' running on 'IBM Cloud Base cloud infrastructure'. A callout notes it's part of 'Cloud Pak for Data' and 'watsonx'. Below, a 'Launch in' dropdown is open, showing 'IBM Cloud Pak for Data' is selected. Helpful links for documentation, learning path, and videos are also present.

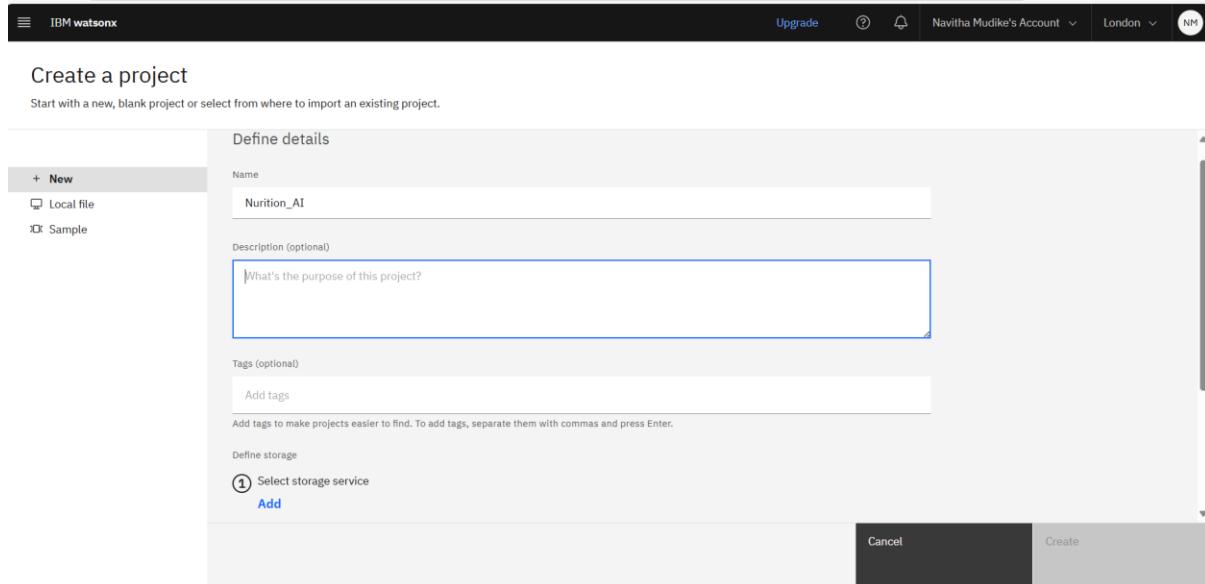
Step-7 You will be redirected to this interface.

The screenshot shows the IBM Watsonx interface. At the top, there's a navigation bar with 'IBM watsonx' on the left, 'Upgrade' and account information on the right. Below the header, a 'Welcome, Navitha' message is displayed. A central 'AI' workspace features a circular diagram with nodes like 'Train, validate, tune and deploy AI models.', 'Chat and build prompt...', 'Build an AI agent to automate tasks with Agent Lab', and 'Tune a foundation model with labeled data with Tuning Studio'. A tooltip says: 'Once you create a sandbox project or migrate projects, you will be able to open a task directly in your project and start working.' On the left, a 'Discover' section includes 'Developer access' (with fields for Project or deployment space and Project ID) and a 'Developer hub' (with a link to 'New watsonx Developer Hub to start coding fast.'). A 'Customize my journey' button is also visible.

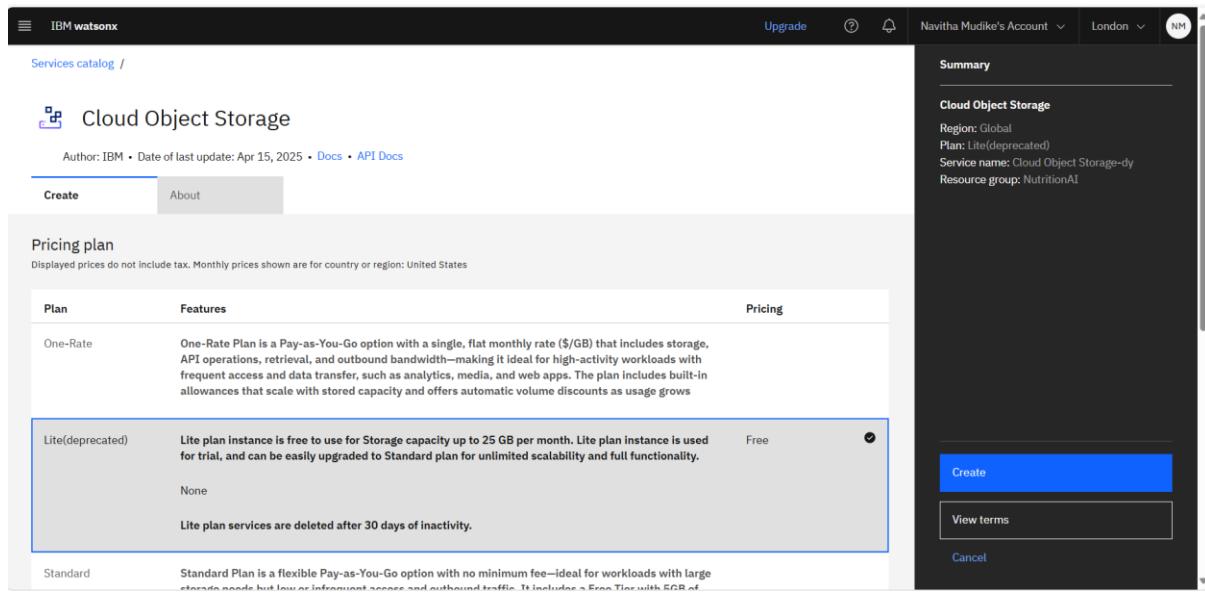
Step-9 Now click on Create a Project.

This screenshot shows the IBM Watsonx interface after creating a project. The top navigation bar and 'Discover' section are similar to the previous screen. The main area now features a 'Resource hub' on the left with sections for 'Foundation models', 'Prompts', 'Data', 'Projects', 'Notebooks', and 'Agents'. To the right, a 'What's new' section lists updates: 'Save resources by training, deploying, and inferencing foundation models that are fine tuned with the low-rank adaptation technique' (Aug 01, 2025), 'The mistral-medium-2505 foundation model is now available in the Frankfurt region' (Jul 30, 2025), and 'Token usage limit increased with the watsonx.ai Runtime Lite plan' (Jul 30, 2025). Below the resource hub is a 'Recent work' section with 'Projects' and 'Deployment spaces' panels. The 'Projects' panel shows a message: 'Your sandbox project creation is taking longer than expected... Click Reload to check its progress or create a project yourself.' It has 'Reload' and 'Create a project' buttons. The 'Deployment spaces' panel shows a rocket icon and the message: 'After you create or join deployment spaces, they will appear here.'

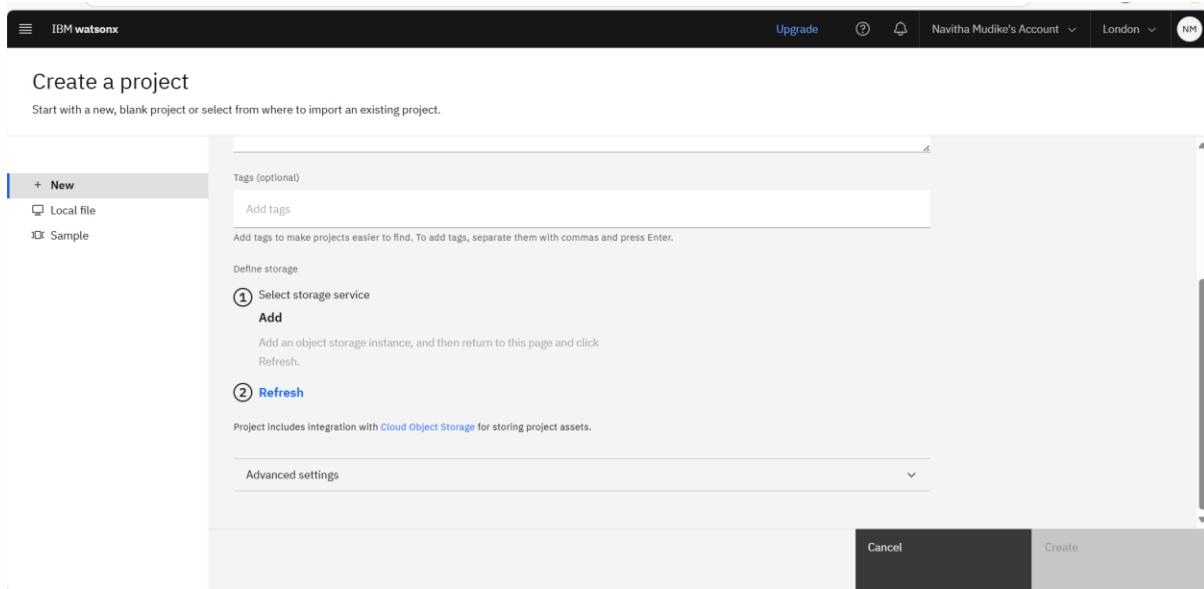
Step-10 Now give the name to your project and then click on Add to add the storage.



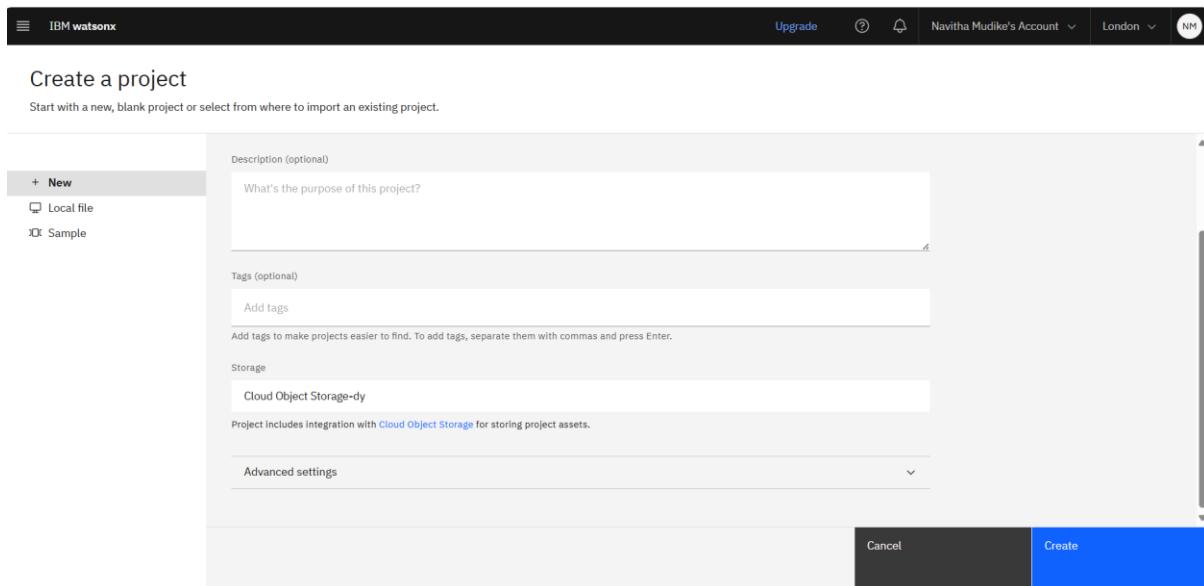
Step-11 Now create the Cloud Object Storage, make sure to select the lite plan and then click on Create.



Step-12 Now click on Refresh.



Step-13 Now click on Create. Your project has been successfully created.



Step-14 Now click on Manage.

The screenshot shows the IBM Watsonx interface for a project named 'Nurition_AI'. The top navigation bar includes 'Upgrade', 'Navitha Mudike's Account', 'London', and various user icons. Below the bar, there are tabs for 'Overview', 'Assets', 'Jobs', and 'Manage', with 'Overview' being the active tab. A main section titled 'Start working' contains four cards: 'Add users as collaborators', 'Add data to work with', 'Chat and build prompts with foundation models', and 'Tune a foundation model with labeled data'. Below this is a 'Jump back in' section with a 'View all' button, followed by 'Resource usage' and 'Your documentation' sections. The 'Manage' tab is highlighted with a blue border.

Step-15 Click on Services & Integrations and then click on Associate Service.

The screenshot shows the 'General' settings page for the 'Nurition_AI' project. The left sidebar has sections for 'Project' (selected), 'General' (selected), 'Access control', 'Environments', 'Resource usage', and 'Services & integrations'. The 'General' section contains tabs for 'Details' (selected) and 'Storage'. Under 'Details', fields include 'Name' (Nurition_AI), 'Description' (What's the purpose of this project?), and 'Tags' (Add tags to make projects easier to find). Under 'Storage', it shows 'Storage used' (0 Bytes) and a 'Bucket' (nuritionai-donotdelete-pr-oval7x3y7wryx0) with a 'Manage in IBM Cloud' link. The 'Manage' tab in the top navigation bar is highlighted with a blue border.

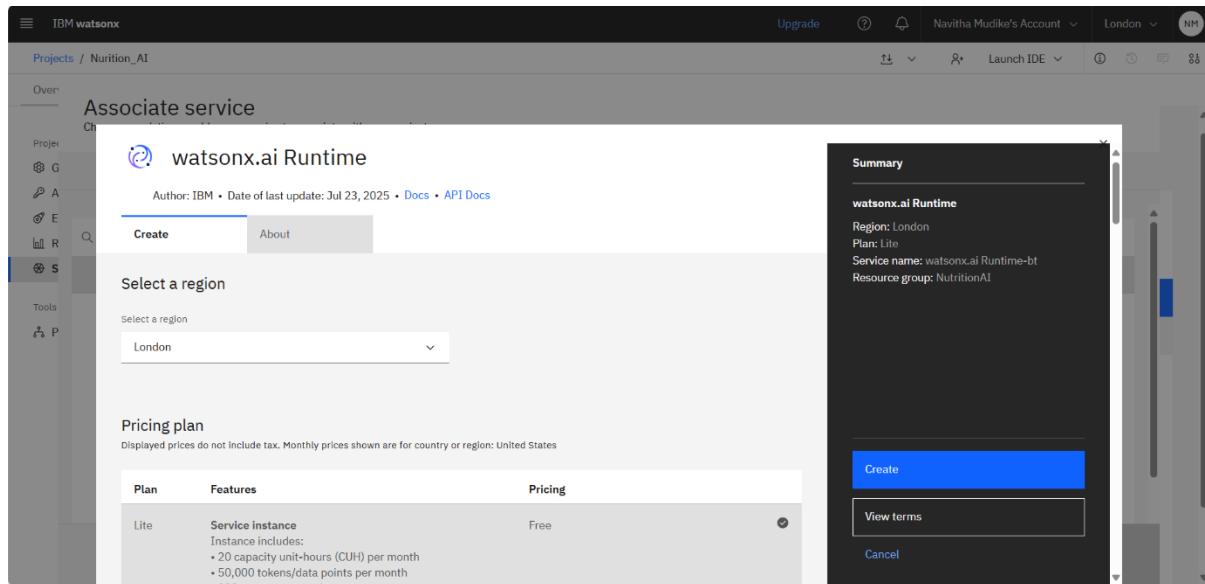
Step-16 Now click on New Service.

The screenshot shows the 'Associate service' dialog in the IBM WatsonX interface. At the top, it says 'Associate service' and 'Choose an existing or add a new service to associate with your project.' Below this, there are two tabs: 'NutritionAI' (selected) and 'Locations'. A search bar labeled 'Find services' is present. A large central area displays a character holding a book and a cube, with the text 'No services available' and a message: 'You don't have a service available to associate with this project. Change your filters to display more services, or click Add service to create a new service instance.' At the bottom are 'Cancel' and 'Associate' buttons.

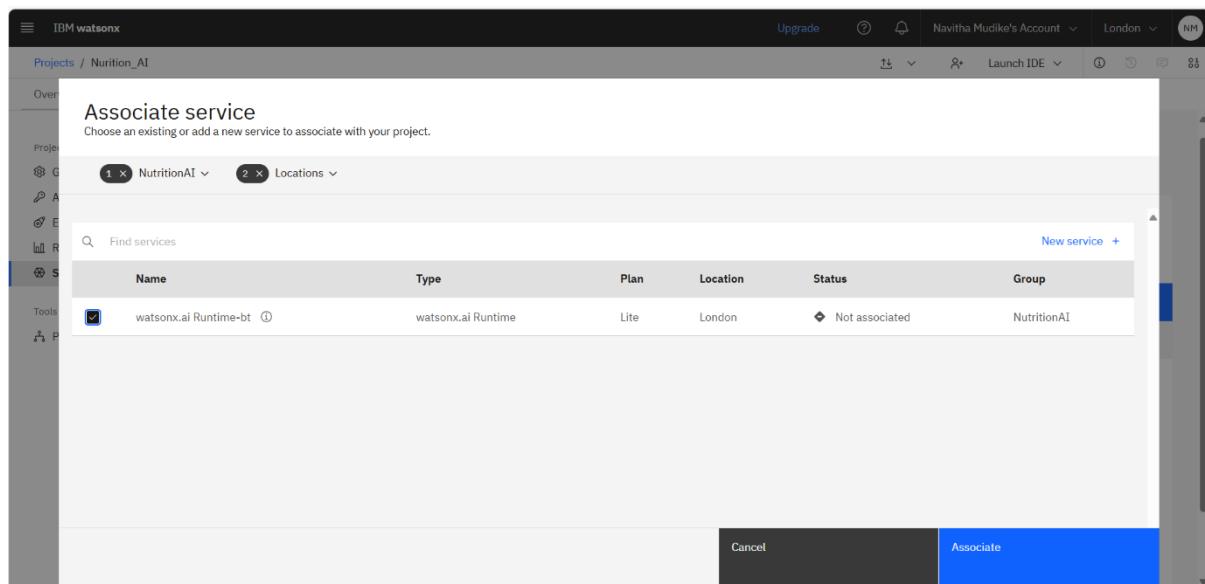
Step-17 Now select the watsonx.ai Runtime.

The screenshot shows the 'Associate service' dialog in the IBM WatsonX interface, specifically the 'Services' section under 'AI / Machine Learning'. On the left, a sidebar lists categories: AI / Machine Learning, Analytics, Databases, Developer tools, Integration, and Storage. The 'AI / Machine Learning' category is expanded. In the main area, three services are listed: 'watsonx.ai Runtime' (selected), 'watsonx.ai Studio' (AI / Machine Learning), and 'watsonx.governance' (AI / Machine Learning + Analytics). Each service has a brief description and a 'Lite • Free' button. The 'Analytics' section is partially visible below.

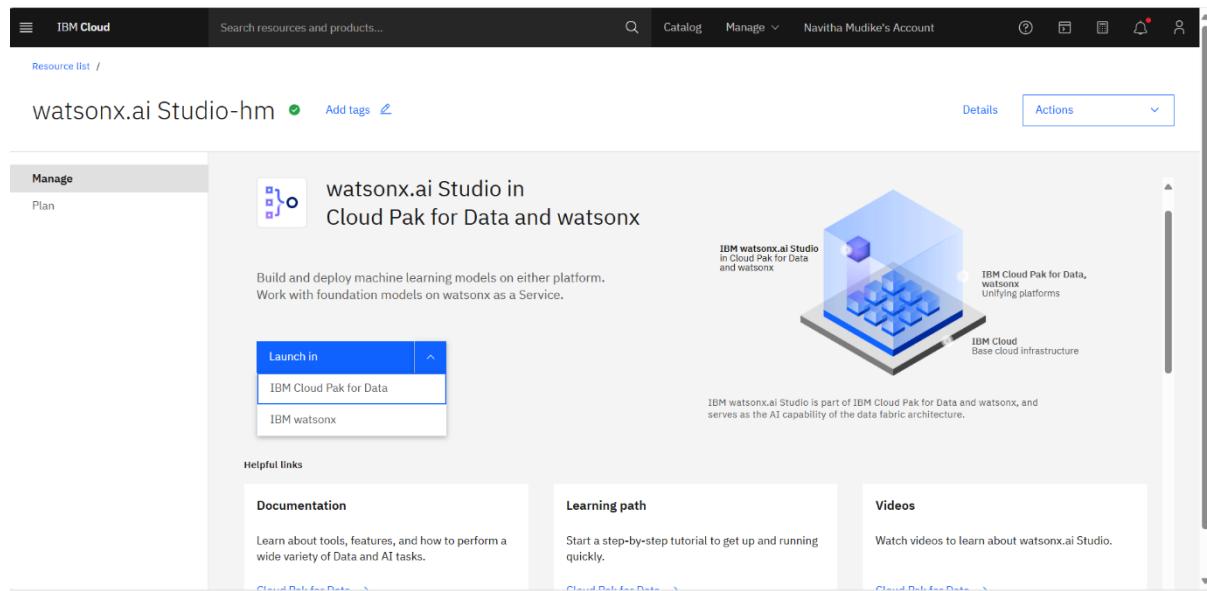
Step-18 Click on Create.



Step-19 Select the created Runtime service and then click on Associate.

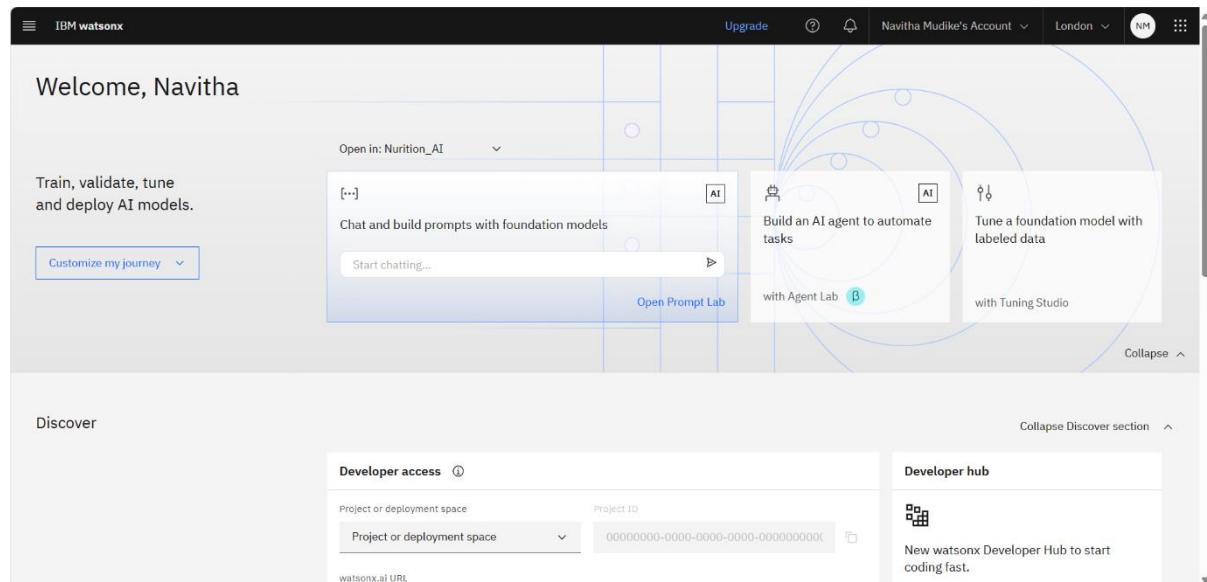


Step-20 Now again go back to the previous tab and again click on IBM watsonx.



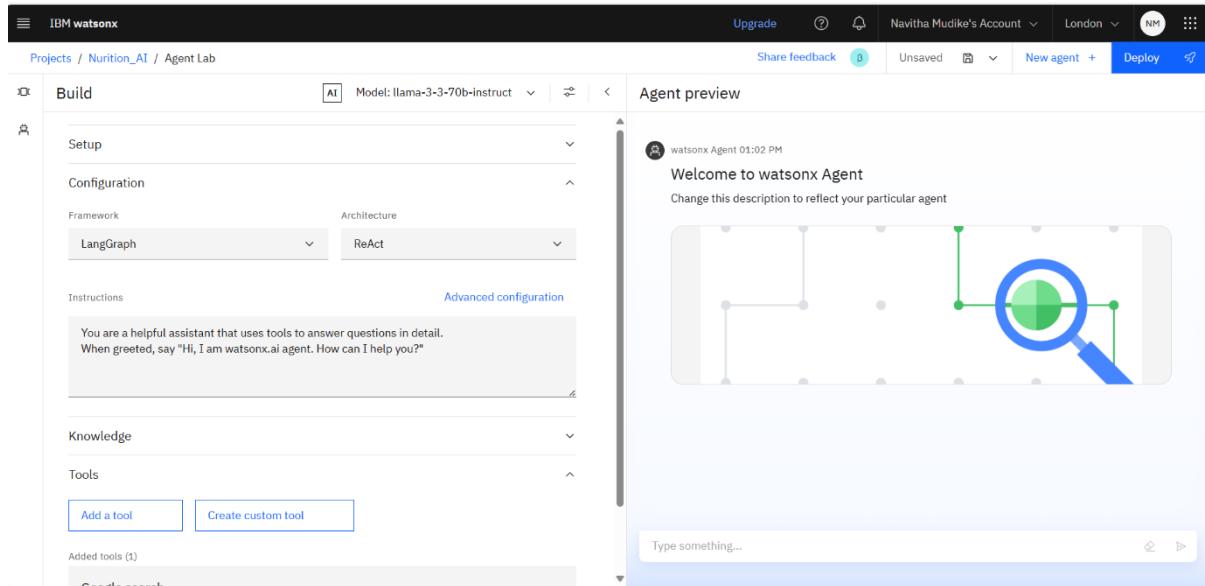
The screenshot shows the IBM Cloud interface with the 'watsonx.ai Studio-hm' resource selected. The 'Actions' button is highlighted. On the left, a sidebar titled 'Manage' has 'Plan' selected. The main content area displays the 'watsonx.ai Studio in Cloud Pak for Data and watsonx' service. A 'Launch in' dropdown menu is open, showing options: 'IBM Cloud Pak for Data' (selected) and 'IBM watsonx'. Below the dropdown are sections for 'Helpful links', 'Documentation', 'Learning path', and 'Videos'.

Step-21 Now click on Build AI agent to automate tasks.



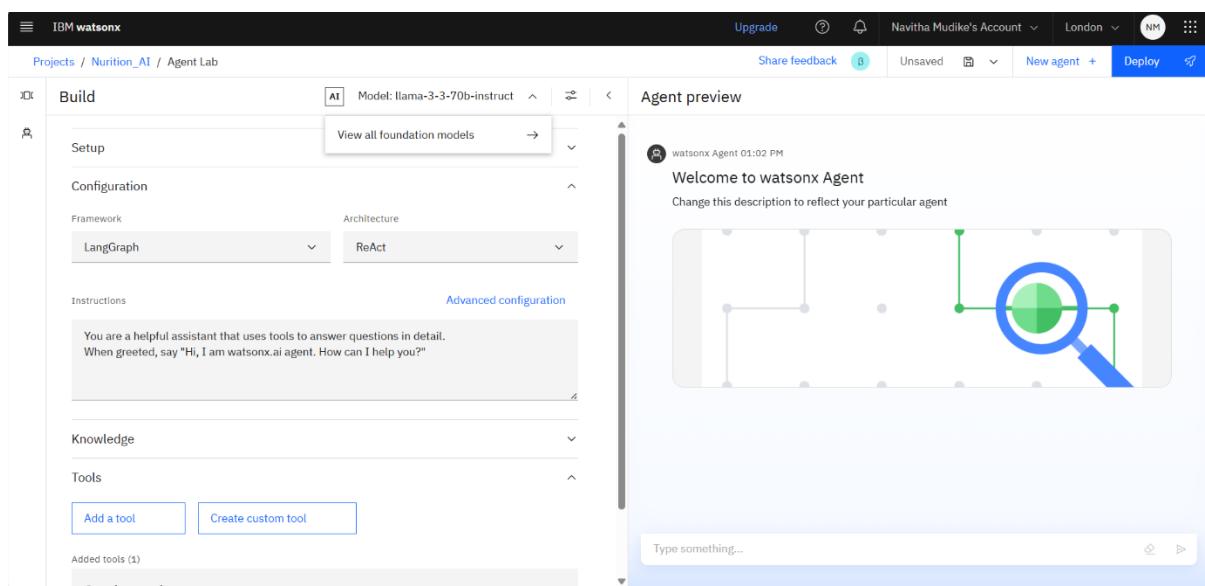
The screenshot shows the IBM Watsonx interface. The top navigation bar includes 'Upgrade', 'Navitha Mudike's Account', 'London', and a user icon. The main area features a 'Welcome, Navitha' message and a central workspace titled 'Open in: Nurition_AI'. The workspace contains several cards: 'Chat and build prompts with foundation models' (with a 'Start chatting...' button), 'Build an AI agent to automate tasks' (with 'with Agent Lab' and a beta indicator), and 'Tune a foundation model with labeled data' (with 'with Tuning Studio'). A 'Discover' section at the bottom left includes 'Developer access' (Project ID: 00000000-0000-0000-0000-000000000000) and 'Developer hub' (link to New watsonx Developer Hub). A 'Discover' section button is also present.

Step-22 This is Watsonx Agent , now change the model here



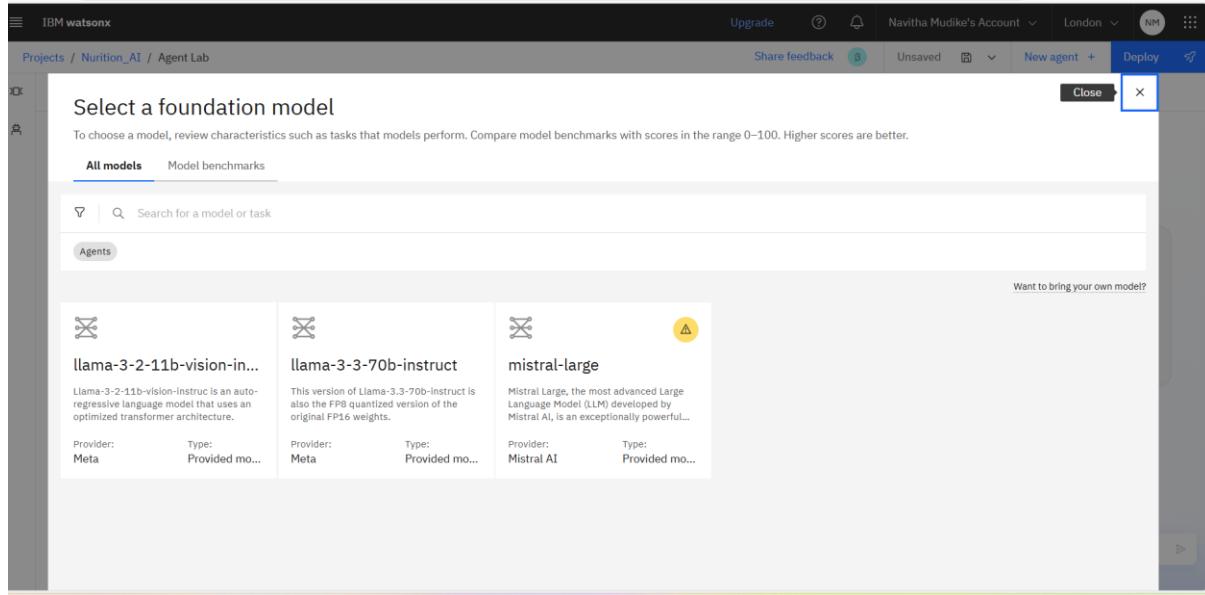
The screenshot shows the IBM Watsonx interface for creating an Agent Lab. On the left, the 'Build' section is open, showing the 'Model' dropdown set to 'llama-3-3-70b-instruct'. The 'Agent preview' on the right displays a welcome message: 'Welcome to watsonx Agent' and 'Change this description to reflect your particular agent'. Below the message is a graphic of a magnifying glass over a green circle.

Step-23 Click on “ View all foundation models” to change the model.



The screenshot shows the same IBM Watsonx interface as above, but the 'Model' dropdown has been changed to 'View all foundation models'. The 'Agent preview' remains the same, displaying the welcome message and the magnifying glass graphic.

Step-24 Now select mistral – large model .



Select a foundation model

To choose a model, review characteristics such as tasks that models perform. Compare model benchmarks with scores in the range 0–100. Higher scores are better.

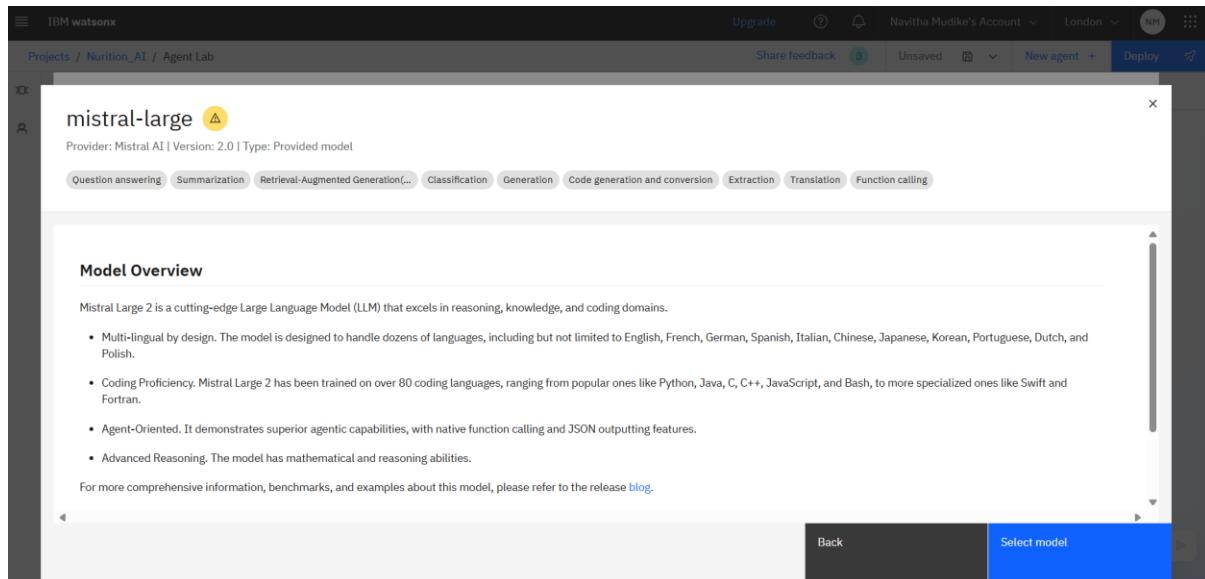
All models Model benchmarks

Agents

Want to bring your own model?

Model	Description	Provider	Type
llama-3-2-11b-vision-instruct	Llama-3-2-11b-vision-instruct is an auto-regressive language model that uses an optimized transformer architecture.	Meta	Provided model
llama-3-3-70b-instruct	This version of Llama-3.3-70b-instruct is also the FP8 quantized version of the original FP16 weights.	Meta	Provided model
mistral-large	Mistral Large, the most advanced Large Language Model (LLM) developed by Mistral AI, is an exceptionally powerful...	Mistral AI	Provided model

Step-25 Now click on Select model .



Upgrades Share feedback Unsaved New agent Deploy

mistral-large ▲

Provider: Mistral AI | Version: 2.0 | Type: Provided model

Question answering Summarization Retrieval-Augmented Generation... Classification Generation Code generation and conversion Extraction Translation Function calling

Model Overview

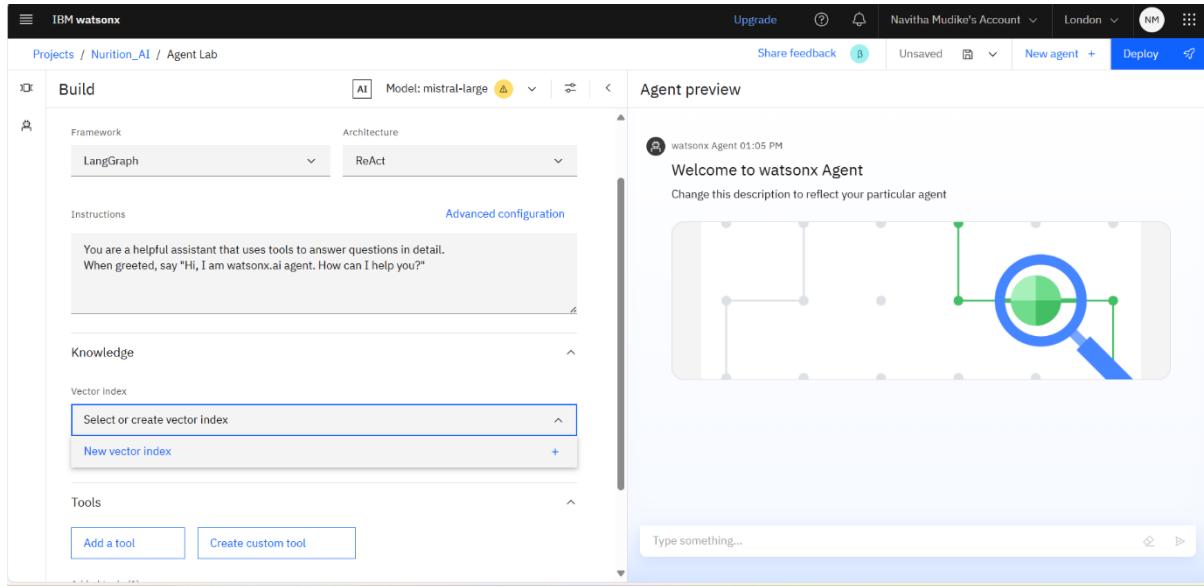
Mistral Large 2 is a cutting-edge Large Language Model (LLM) that excels in reasoning, knowledge, and coding domains.

- Multi-lingual by design. The model is designed to handle dozens of languages, including but not limited to English, French, German, Spanish, Italian, Chinese, Japanese, Korean, Portuguese, Dutch, and Polish.
- Coding Proficiency: Mistral Large 2 has been trained on over 80 coding languages, ranging from popular ones like Python, Java, C, C++, JavaScript, and Bash, to more specialized ones like Swift and Fortran.
- Agent-Oriented. It demonstrates superior agentic capabilities, with native function calling and JSON outputting features.
- Advanced Reasoning. The model has mathematical and reasoning abilities.

For more comprehensive information, benchmarks, and examples about this model, please refer to the release [blog](#).

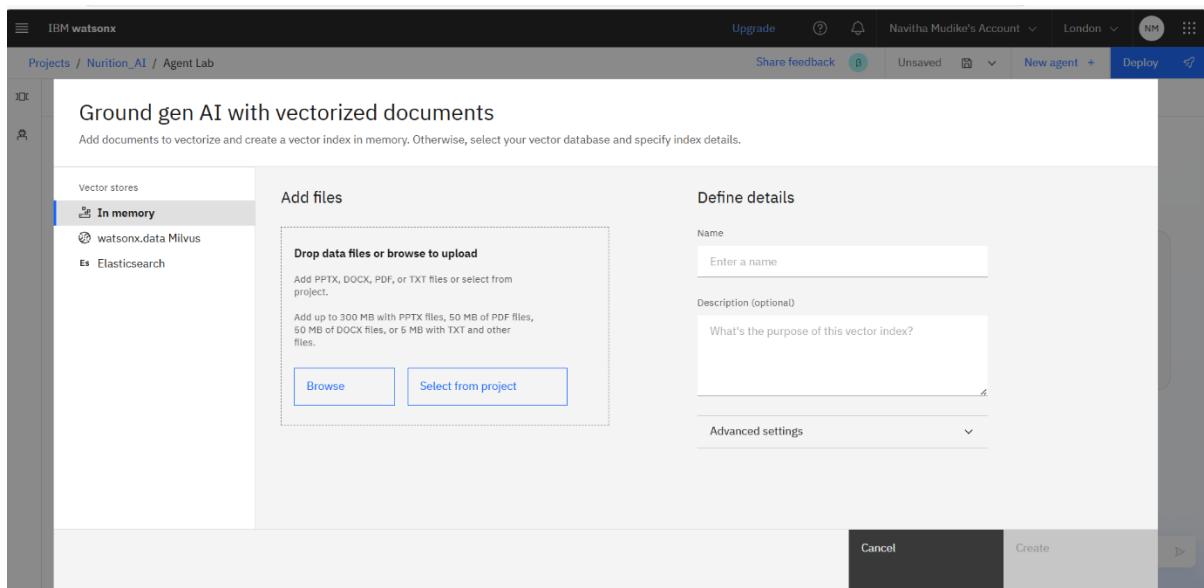
Back Select model

Step-26 Click on the knowledge and then click on New vector index.



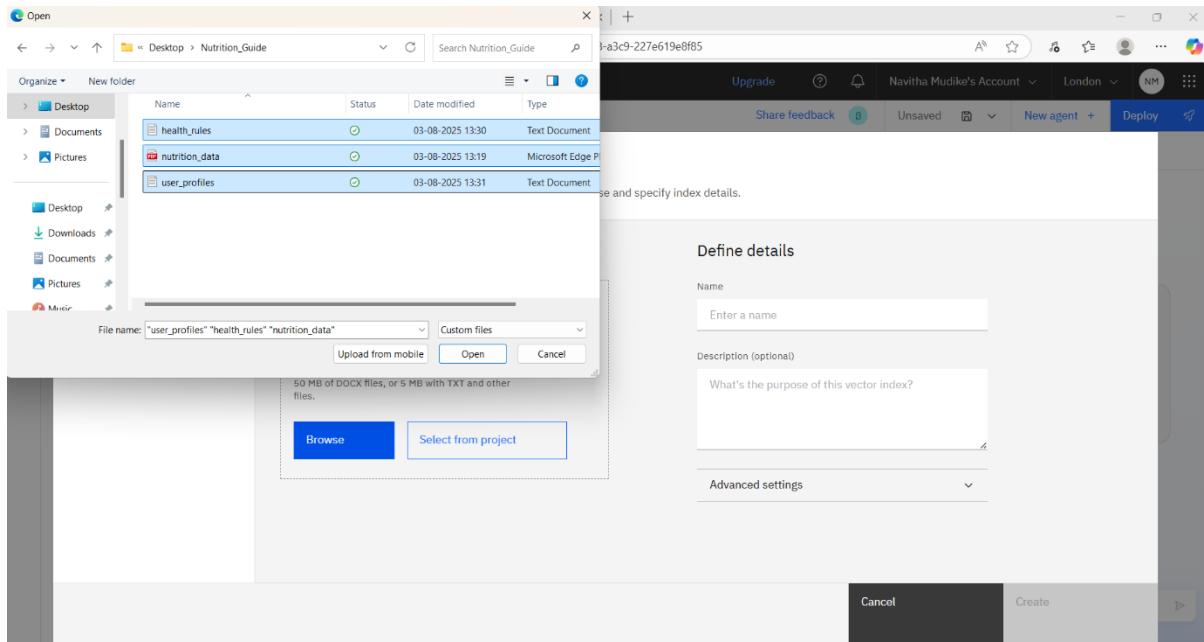
The screenshot shows the IBM watsonx Agent Lab interface. On the left, under the 'Build' tab, there's a 'Knowledge' section. Within this section, a dropdown menu titled 'Vector Index' has 'Select or create vector index' selected. Below it, a blue button labeled 'New vector index' is visible. The right side of the screen displays the 'Agent preview' window, which includes a welcome message and a search interface.

Step-27 Now click on Browse.

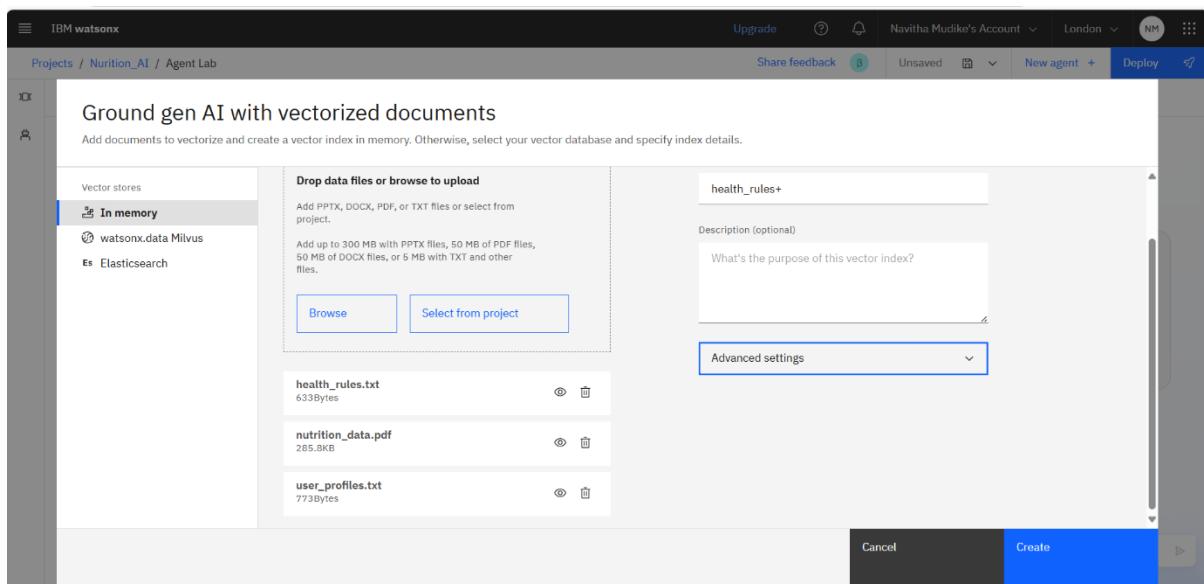


The screenshot shows the 'Ground gen AI with vectorized documents' page. On the left, there's a sidebar with 'Vector stores' and 'In memory' is selected. The main area has sections for 'Add files' (with 'Drop data files or browse to upload' and 'Browse' and 'Select from project' buttons) and 'Define details' (with fields for 'Name' and 'Description (optional)'). At the bottom right are 'Cancel' and 'Create' buttons.

Step-28 Now select your document.



Step-29 Now Select Nutrition data and click on Create.



Step-30 Now you can ask questions related to your document.

The screenshot shows the IBM WatsonX interface for building an AI agent. On the left, under 'Build', there's an 'Instructions' section with a placeholder message: 'You are a helpful assistant that uses tools to answer questions in detail. When greeted, say "Hi, I am watsonx.ai agent. How can I help you?"'. Below it is a 'Knowledge' section with a 'Vector index' dropdown containing 'nutrition_data-1'. Under 'Tools', there are buttons for 'Add a tool' and 'Create custom tool', and a list of added tools: 'Google search' and 'Document search - nutrition_data-1'. On the right, the 'Agent preview' window shows a conversation. It starts with a user message 'which document do you have' at 02:44 PM, followed by an agent response 'I have access to the following documents:' listing 'nutrition_data-1' and a link 'How did I get this answer?'. The user then asks 'summarize the document' at 02:45 PM, and the agent responds with a detailed summary of Indian dishes, ingredients, dietary preferences, preparation time, and taste. A text input field at the bottom says 'Type something...'. The top navigation bar includes links for 'Upgrade', 'Share feedback', 'Unsaved', 'New agent', and 'Deploy'.

Step-31 Click on Add a tool.

This screenshot shows the same interface as above, but with a key difference: the 'Tools' section now has a 'Google search' tool added. The rest of the interface remains the same, including the 'Build' panel with instructions and knowledge, and the 'Agent preview' window displaying the welcome message and a magnifying glass icon over a grid background.

Step-32 Enable the tools (Shown in picture)

The screenshot shows the 'Select a tool' interface in IBM Watsonx. It displays a grid of eight tool cards, each with an icon, name, and a brief description. The tools are:

- 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.
- Document search: Search documents with vector indexes.
- Tavily search: Retrieve information from the internet with the Tavily search engine.
- Webcrawler: Retrieve information from a website.
- Python Interpreter: Execute Python code generated by the agent.
- Weather: Retrieve the weather of a city.

Step-33 Type here your question here. This is output.

The screenshot shows the 'Build' interface in IBM Watsonx. On the left, there's a sidebar with sections for 'Framework' (LangGraph, ReAct), 'Instructions' (maintain a helpful, respectful, and supportive tone), 'Knowledge', 'Tools' (Add a tool, Create custom tool), and 'Added tools (5)' which include 'Google search' and 'DuckDuckGo search'. On the right, the 'Agent preview' pane shows a conversation history:

- You: 03:27 PM
give me diet plan for diabetes
- Nutrition Agent 03:27 PM
Here are some resources that can help you create a diet plan for diabetes:
 1. [Simple Diabetes Meal Plan: Manage Blood Glucose with the...](#)
 - The Diabetes Plate is the easiest way to create healthy meals that can help manage blood glucose. You can create perfectly portioned meals.
 2. [Diabetes Meal Planning | Diabetes | CDC](#)
 - You'll want to plan for regular, balanced meals to avoid high or low blood sugar levels. Eating about the same amount of carbs at each meal can ...
 3. [Diabetes Meal Patterns: Science-Based Nutrition Plans for Weight...](#)
 - The ADA focuses on meal patterns that are scientifically proven to help manage diabetes. These meal patterns are meant to be a way of eating that lasts.
 4. [Diabetes diet: Create your healthy-eating plan - Mayo Clinic](#)

Step-34 Click on Save as icon .

The screenshot shows the IBM WatsonX interface for the 'Nutrition_AI' project. On the left, there's a sidebar titled 'Build' with sections for 'Framework' (LangGraph), 'Instructions' (with a note to maintain a helpful tone), 'Knowledge', 'Tools', and search tools ('Google search' and 'DuckDuckGo search'). The main area is titled 'Agent preview' and shows a simulated conversation between a user ('You') and a nutrition agent. The user asks for a diet plan for diabetes, and the agent responds with a list of resources, including links to 'Simple Diabetes Meal Plan', 'Diabetes Meal Planning', 'Diabetes Meal Patterns', and 'Diabetes diet'. A 'Save as' button is visible in the top right corner of the preview area.

Step-35 Save your work, choose Agent , click on save

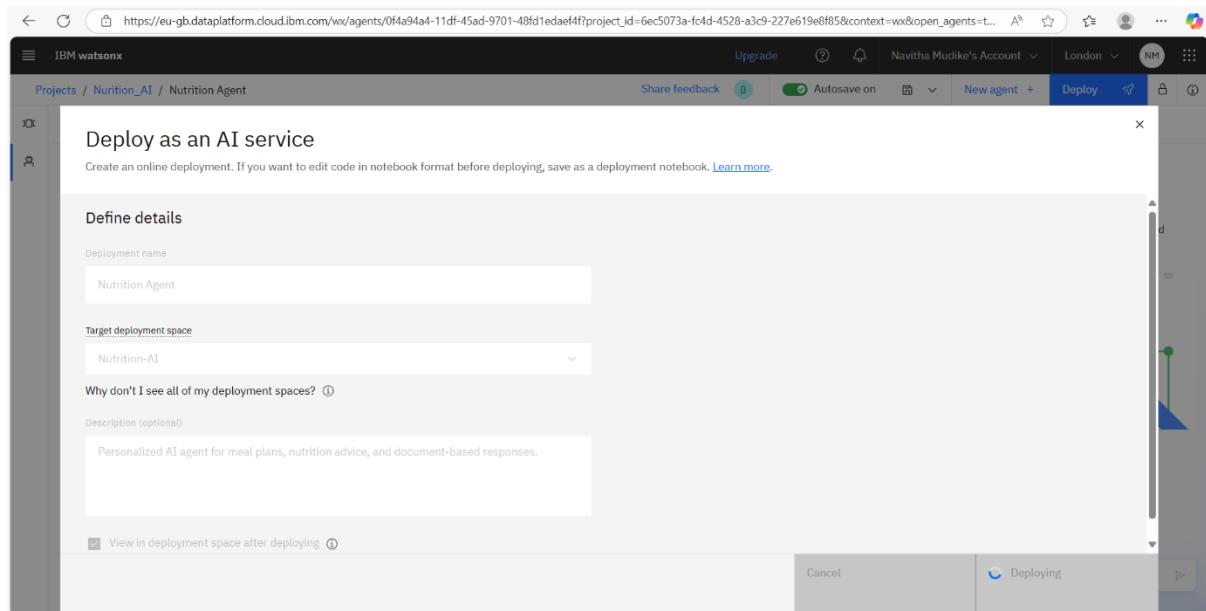
The screenshot shows the 'Save your work' dialog box. Under 'Asset type', the 'Agent' option is selected, indicated by a blue border. There are also 'Standard notebook' and 'Deployment notebook' options. In the 'Define details' section, the 'Name' field is filled with 'Nutrition Agent'. A checkbox for 'View in project after saving' is present. At the bottom, there are 'Cancel' and 'Save' buttons, with 'Save' being highlighted in blue.

Step-36 Your saved agents are available here

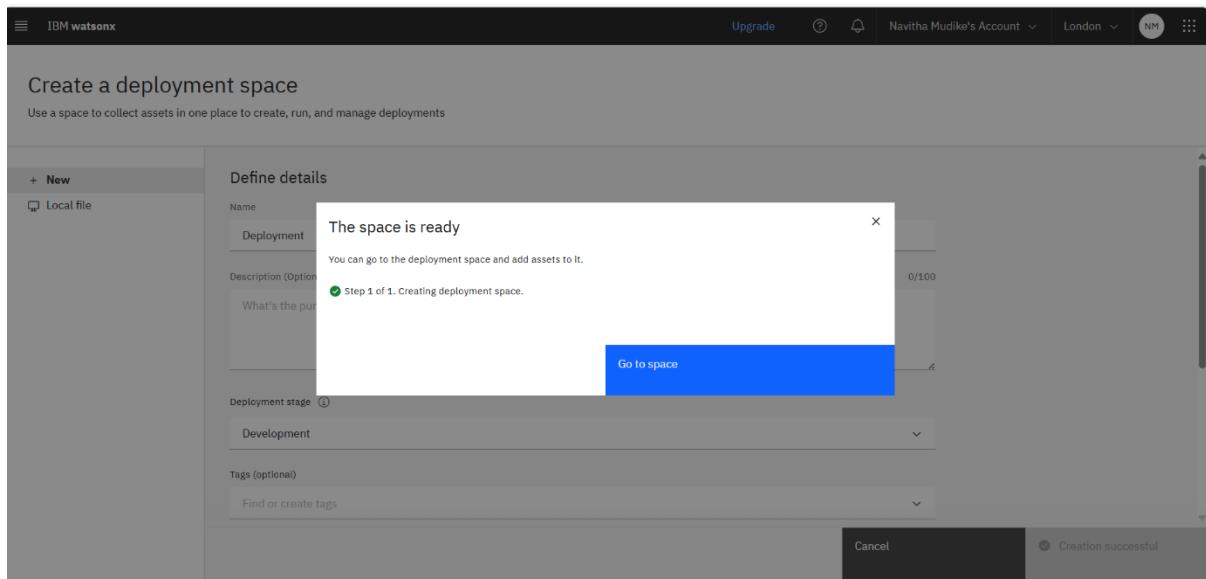
The screenshot shows the IBM WatsonX interface. On the left, there's a sidebar titled 'Saved agents' with a single entry: 'Nutrition Agent' from 'Nutrition_AI'. The main area is titled 'Build' and shows configuration options for an AI model named 'mistral-large'. The 'Agent preview' window on the right displays a welcome message for the Nutrition Agent, stating it's a personalized AI agent for meal plans, nutrition advice, and document-based responses. It features a large magnifying glass icon over a network graph.

Step-39 This is the output from sample agent & click on Deploy.

This screenshot is identical to the one above, showing the IBM WatsonX interface. The 'Saved agents' section contains the 'Nutrition Agent' entry. The 'Build' configuration screen is visible, and the 'Agent preview' window on the right shows the same welcome message and graphical interface as the previous screenshot.



Step-42 You will get a pop-up displaying The space is ready.



Step-45 Click on View Status.

The screenshot shows the IBM WatsonX interface for managing AI agents. On the left, there's a sidebar titled 'Saved agents' with a section for 'Nutrition Agent'. The main area is titled 'Build' and shows configuration details for the 'Nutrition Agent'. A large 'Agent preview' window on the right displays a welcome message: 'Welcome to Nutrition Personalized AI agent for meal responses.' Below this, there's a circular diagram with a magnifying glass icon. A tooltip box is overlaid on the preview window, stating 'Deployment has started Your AI service deployment has started.' and 'View status' with a timestamp of 'Timestamp 9:00:46 PM'.

Step-46 You will see that your agent is getting deployed.

The screenshot shows the 'Deployment spaces' interface in IBM WatsonX. It lists a single deployment entry for the 'Nutrition-AI' space. The table shows the following details:

Name	Type	Status	Asset	Asset type	Tags	Last modified
Nutrition Agent	Online	Deployed	Nutrition Agent	Ai service	wx-agent	1 minute ago Navitha Mudike (You)

At the bottom, there are pagination controls: 'Items per page: 20' and '1 of 1 pages'.

Step-48 You can see the API references for your Deployed agent.

The screenshot shows the IBM WatsonX interface for a deployed Nutrition Agent. On the left, there's a sidebar with 'Deployment spaces / Nutrition-AI / Nutrition Agent /'. Below it, the main area has tabs for 'API reference' (which is selected), 'Test', and 'Preview'. Under 'API reference', there are sections for 'Endpoints for inferencing' (both private and public) and 'Code snippets' (with tabs for cURL, Java, JavaScript, Python, and Scala). To the right, a vertical panel titled 'About this deployment' provides details: Name (Nutrition Agent), Description (Personalized AI agent for meal plans, nutrition advice, and document-based responses), Deployment Details (Deployment ID: fd72c0a1-dfb1-41c1-b46f-6c214b83f66d, 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), and Associated asset (Nutrition Agent, ID: zeeff2855-58db-474b-85e4-870f6cababec).

Step-49 Now you can click on Preview and ask questions to your agent.

The screenshot shows the IBM WatsonX interface with the 'Preview' tab selected. The main area displays a chat window where the agent says 'Welcome to Nutrition Agent' and 'Personalized AI agent for meal plans, nutrition advice, and document-based responses.' Below the message is a large graphic of a magnifying glass over a green circle. At the bottom, there's a text input field with the placeholder 'Type something...'. The right side of the screen contains the same 'About this deployment' panel as the previous screenshot, providing detailed information about the deployment.

IBM watsonx

Upgrade ⚡ ⓘ 🔔 Navitha Mudike's Account London NM ⋮

Deployment spaces / Nutrition-AI / Nutrition Agent /

Nutrition Agent Deployed Online

API reference Test Preview New chat +

You 09:03 PM what is nutrition

Nutrition Agent 09:03 PM Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism and excretion.

The diet of an organism is what it eats, which is largely determined by the availability and palatability of foods. For humans, a healthy diet includes preparation of food and storage methods that preserve nutrients from oxidation, heat or leaching, and that reduces risk of foodborne illnesses.

In humans, an unhealthy diet can cause deficiency-related diseases such as blindness, anemia, scurvy, preterm birth, stillbirth and cretinism, or nutrient excess health-threatening conditions such as obesity and metabolic syndrome; and such common chronic systemic diseases as cardiovascular disease, diabetes, and osteoporosis. Undernutrition can lead to wasting in acute cases, and the stunting of marasmus in chronic cases of malnutrition.

Type something...

About this deployment

Name Nutrition Agent

Description Personalized AI agent for meal plans, nutrition advice, and document-based responses.

Deployment Details

Deployment ID: fd72c0a1-dfb1-41...
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 Nutrition Agent
2eeef2056-58db-474b-85e4-870f6cababec

This screenshot captures the IBM WatsonX interface for managing AI agents. At the top, the navigation bar includes links for Upgrade, Help, Notifications, and account information. Below the header, the path Deployment spaces / Nutrition-AI / Nutrition Agent / is displayed. The main content area features a card for the 'Nutrition Agent', which is currently 'Deployed' and 'Online'. Three tabs are available: API reference, Test, and Preview, with Preview being the active tab. In the Preview section, a simulated conversation is shown between a user ('You') asking 'what is nutrition' and the AI agent responding with a detailed explanation of nutrition as a science and its impact on health. A text input field at the bottom allows users to type additional questions. To the right of the preview, a sidebar provides detailed deployment information, including the deployment ID (fd72c0a1-dfb1-41...), serving name (No serving name), software specification (runtime-24.1-py3.11), hardware specification (Extra extra small: 1 CPU and 2 GB RAM), and a single copy. The sidebar also lists associated assets, specifically the 'Nutrition Agent' asset with the identifier 2eeef2056-58db-474b-85e4-870f6cababec.