

Tri-Virtual Assistant Chatbot DEMO

Using NVIDIA Workbench AI and NVIDIA NIM

Mentor :

Prof. Manjul Krishna Gupta

TEAM MEMBERS :

1) Renu Bojja:1RVU22CSE129

2) Karmishtha P:1RVU22CSE077


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Thank you!



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Entitlement Date

Entitlement Type

NVIDIA Sales Order

163868

08 NOV 2024

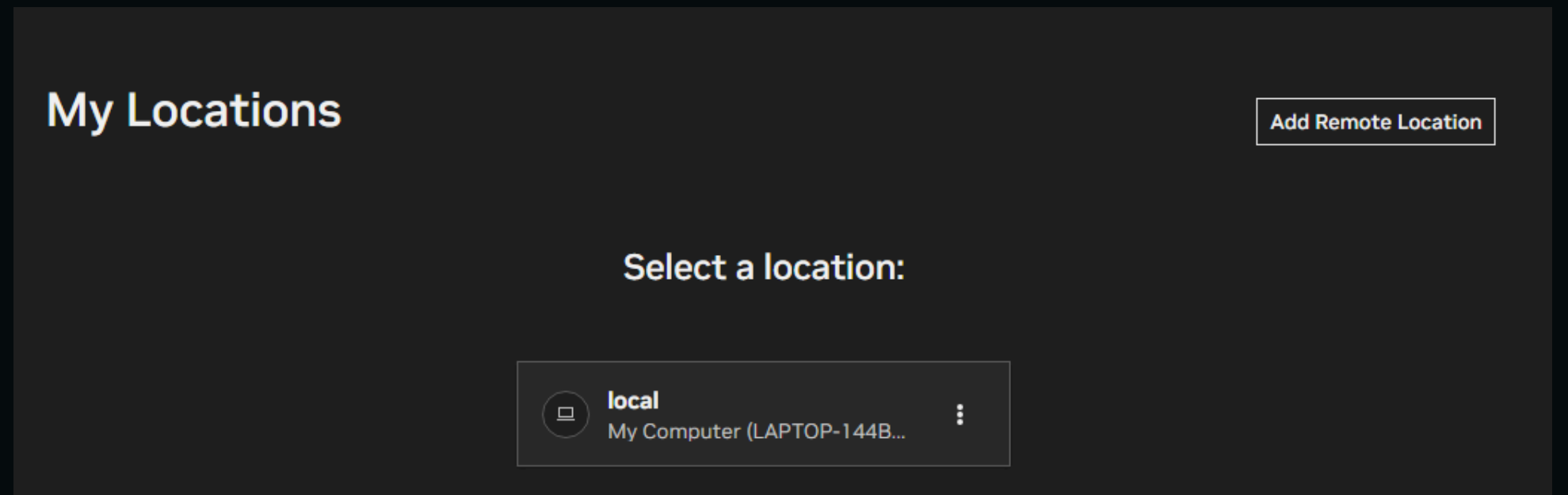
Eval - NVAIE

NA

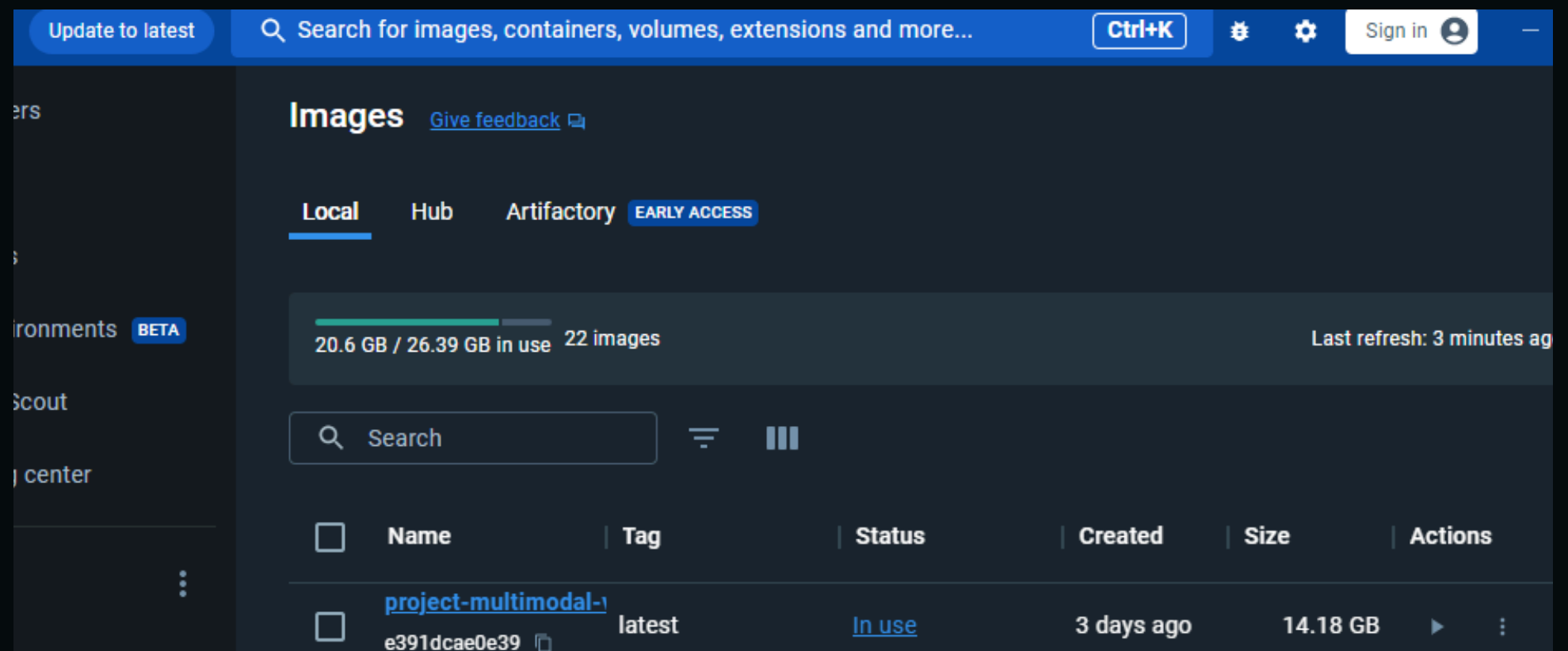
No	Entitlement Description	Quantity	Sales Type	Term	Start Date	End Date
1	NVIDIA AI Enterprise Evaluation PAK ID: ofegqpwugo-77ojnlfod2-splwfpkx6t	6 EA	Initial	N/A	08 NOV 2024	06 FEB 2025

DOWNLOAD LINK

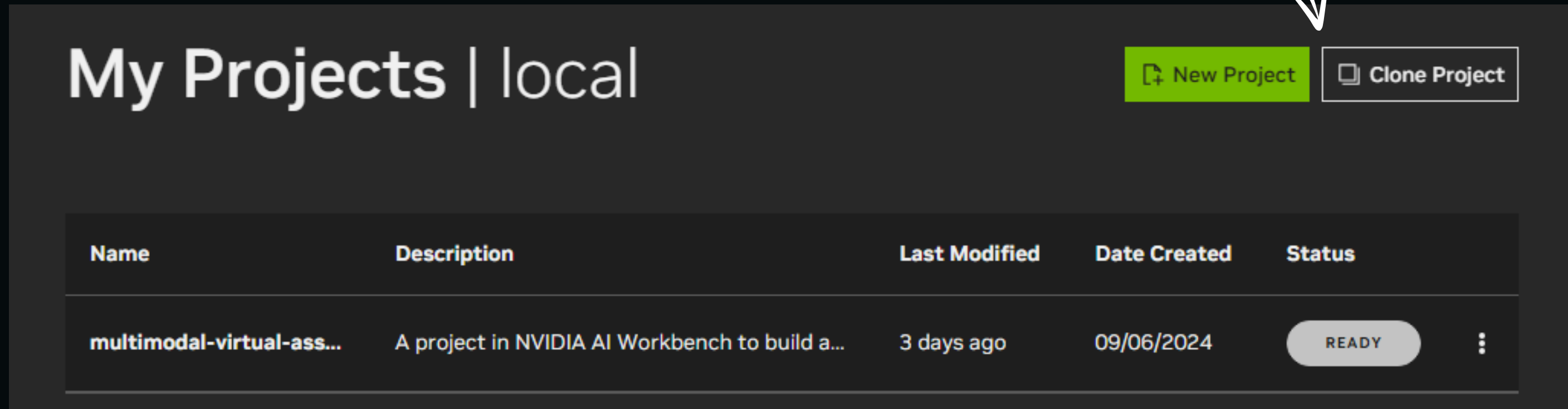
Select local location.



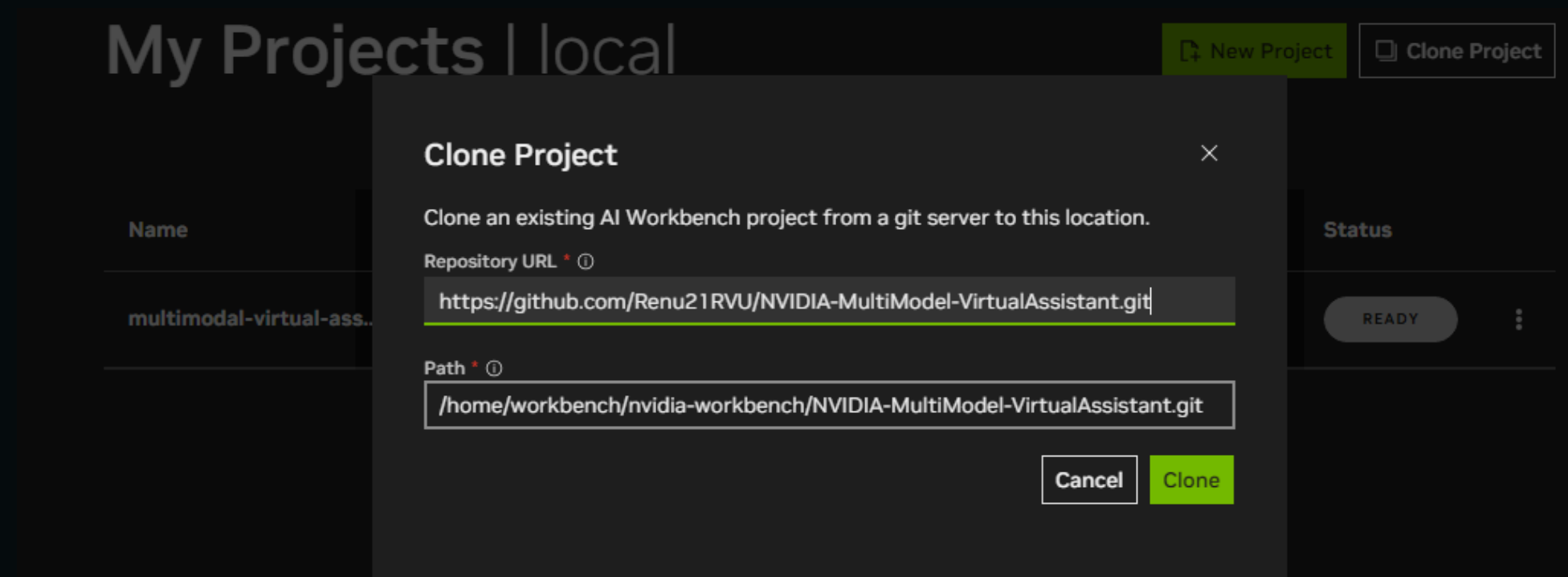
Docker opens automatically. Don't close it.



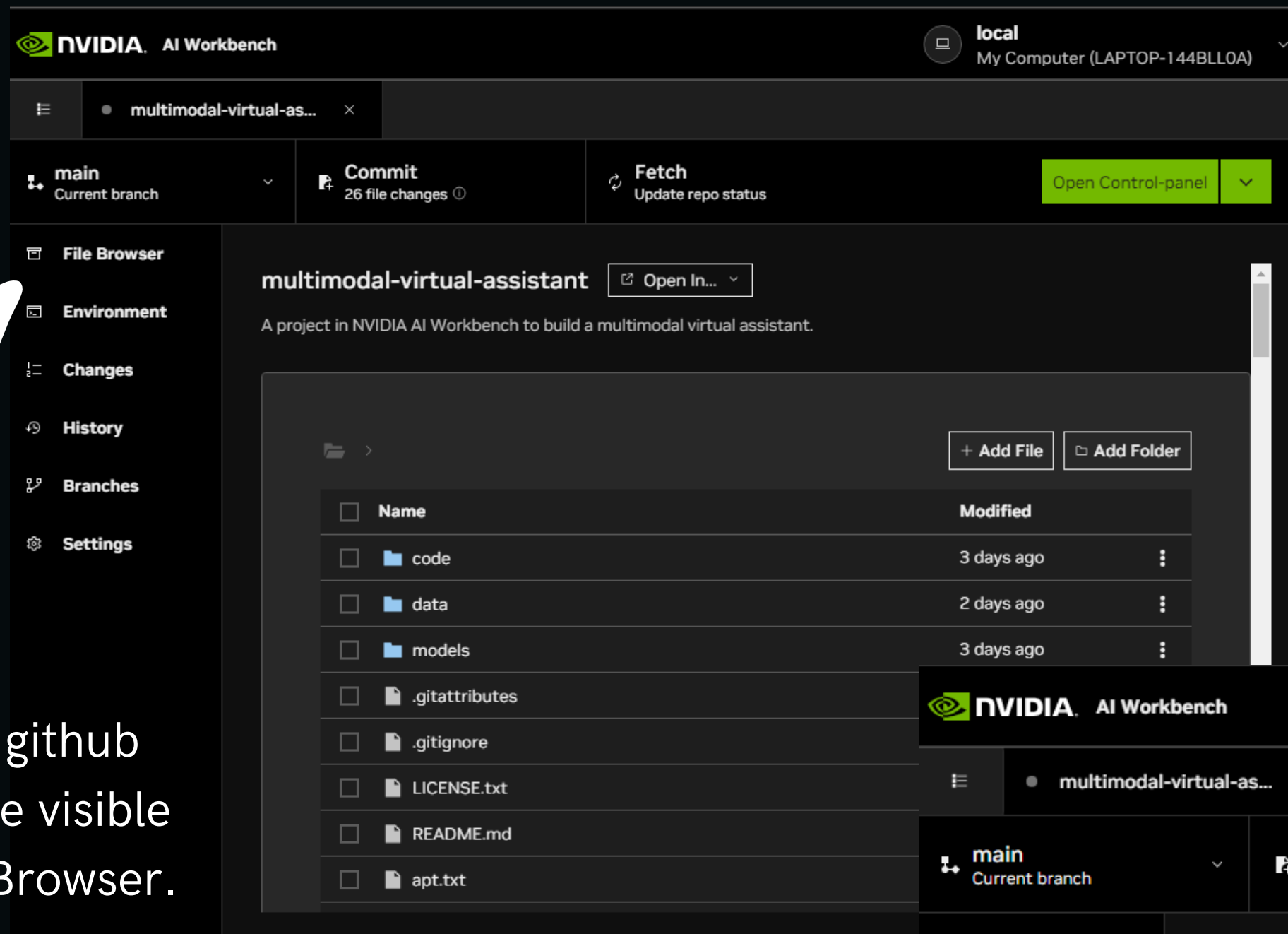
If you have your project on github click on Clone Project else you can click on New Project and start coding/upload your code files.



- Add your Repository URL in the space provided.
- Path is automatically created.
- Click on Clone.

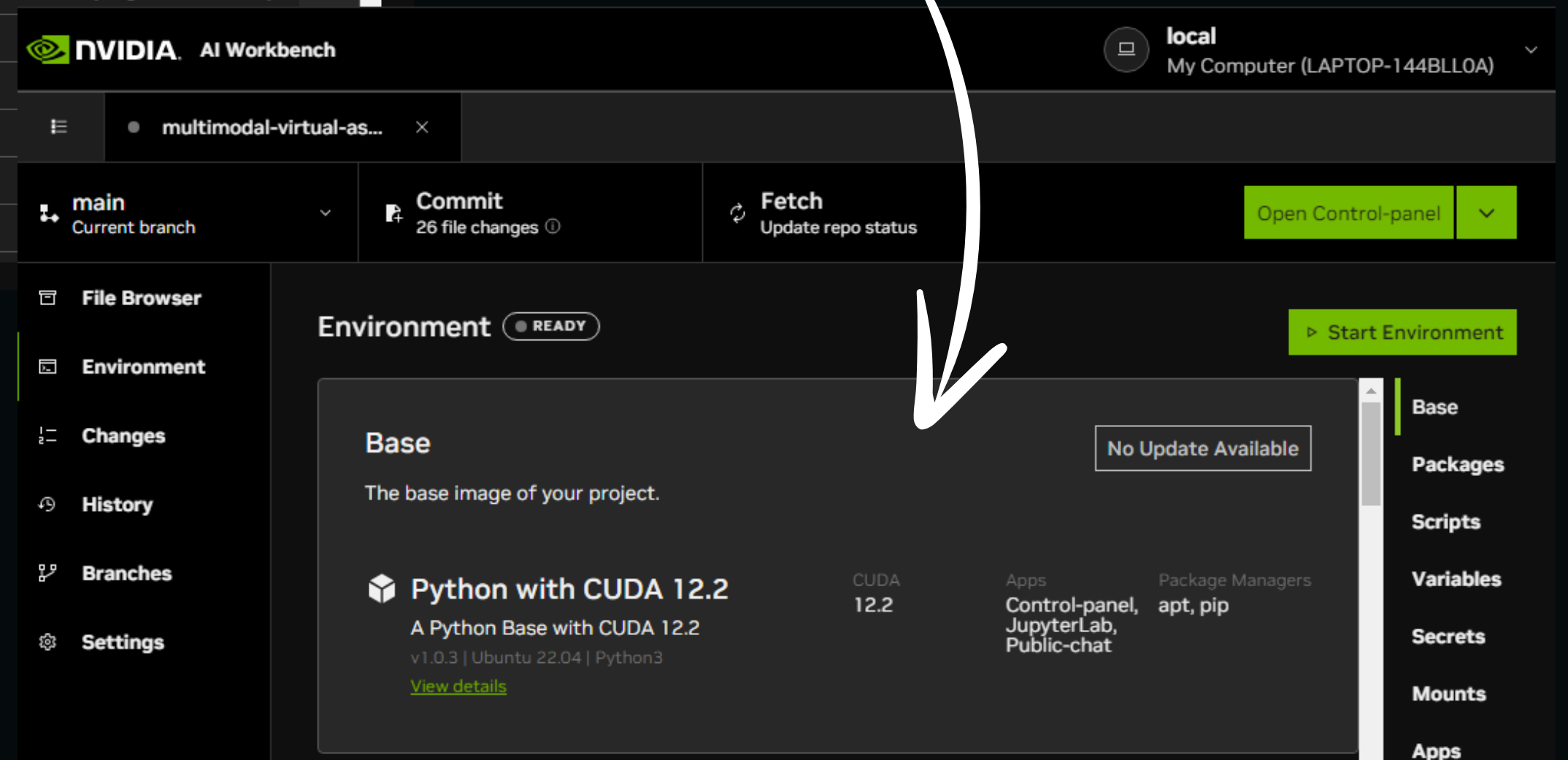


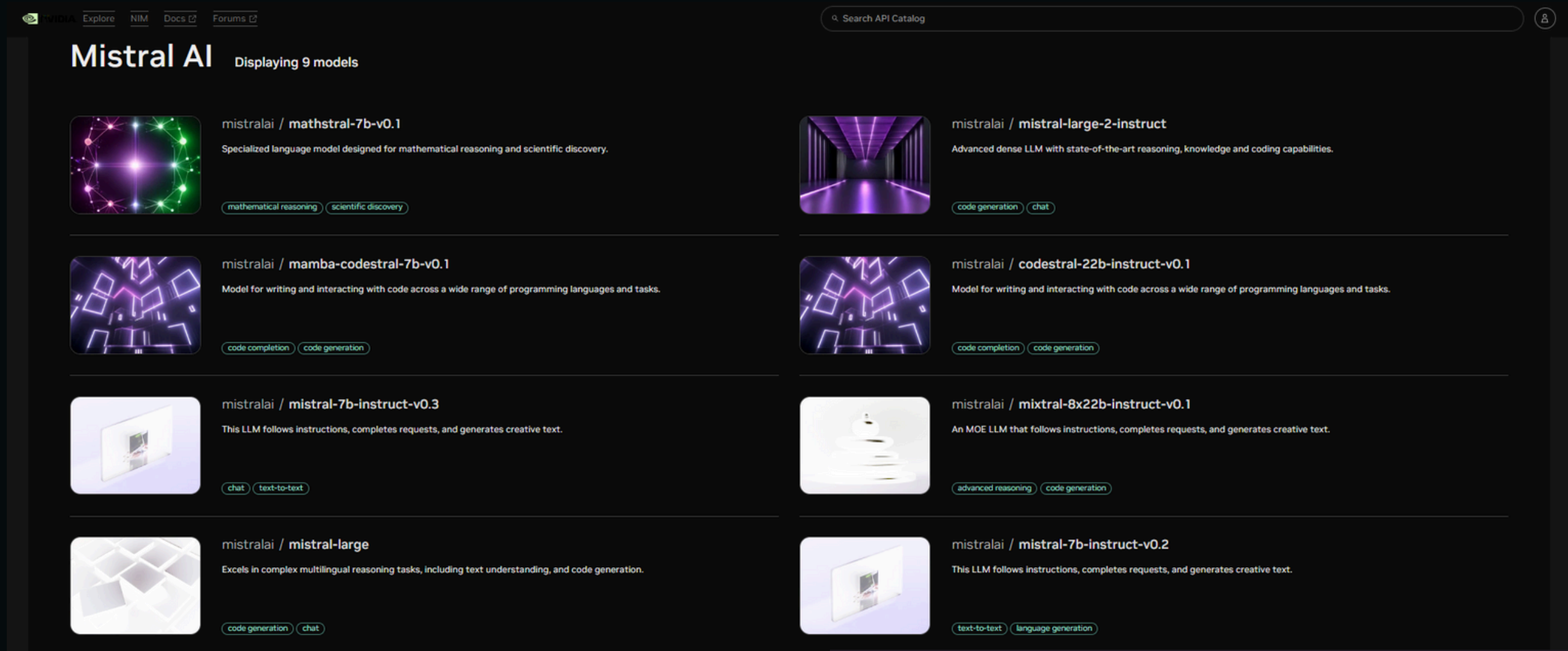
GITHUB : <https://github.com/Renu21RVU/NVIDIA-MultiModel-VirtualAssistant.git>



Your github files are visible in File Browser.

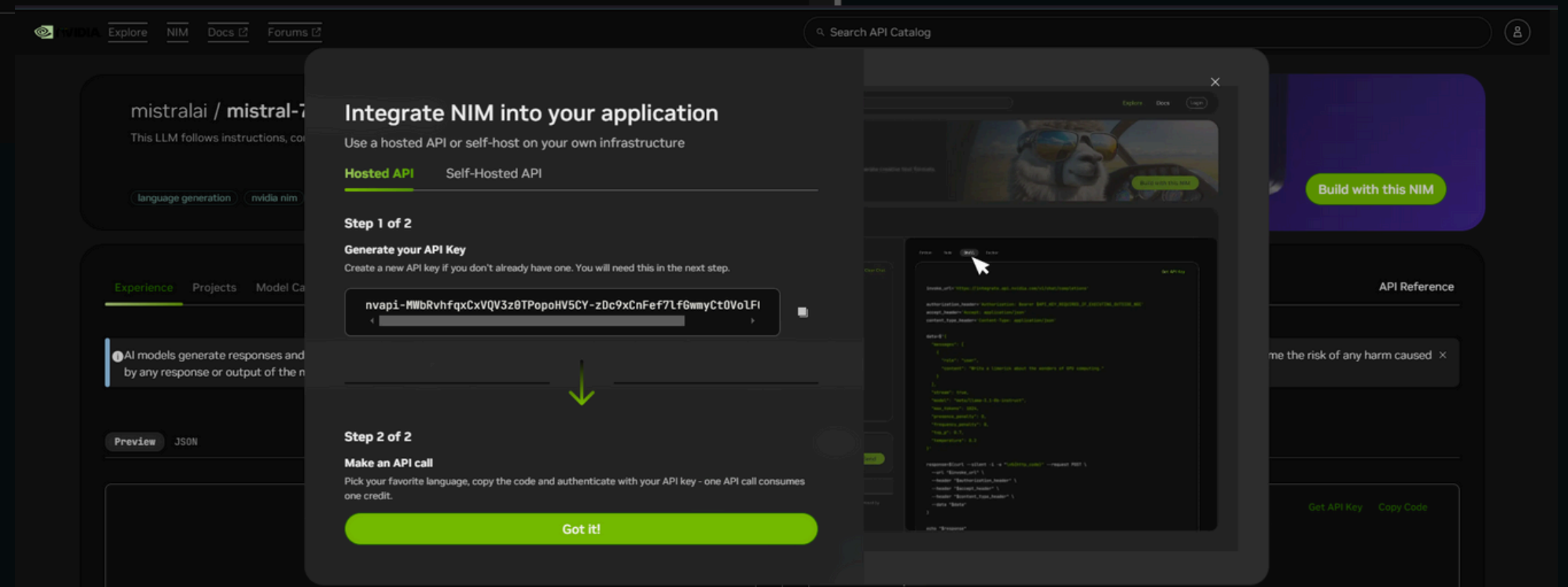
NVIDIA AI Workbench provides a default container with CUDA 12.2, Python 3.10, and JupyterLab installed. This container can be used as a starting point for creating a new project.

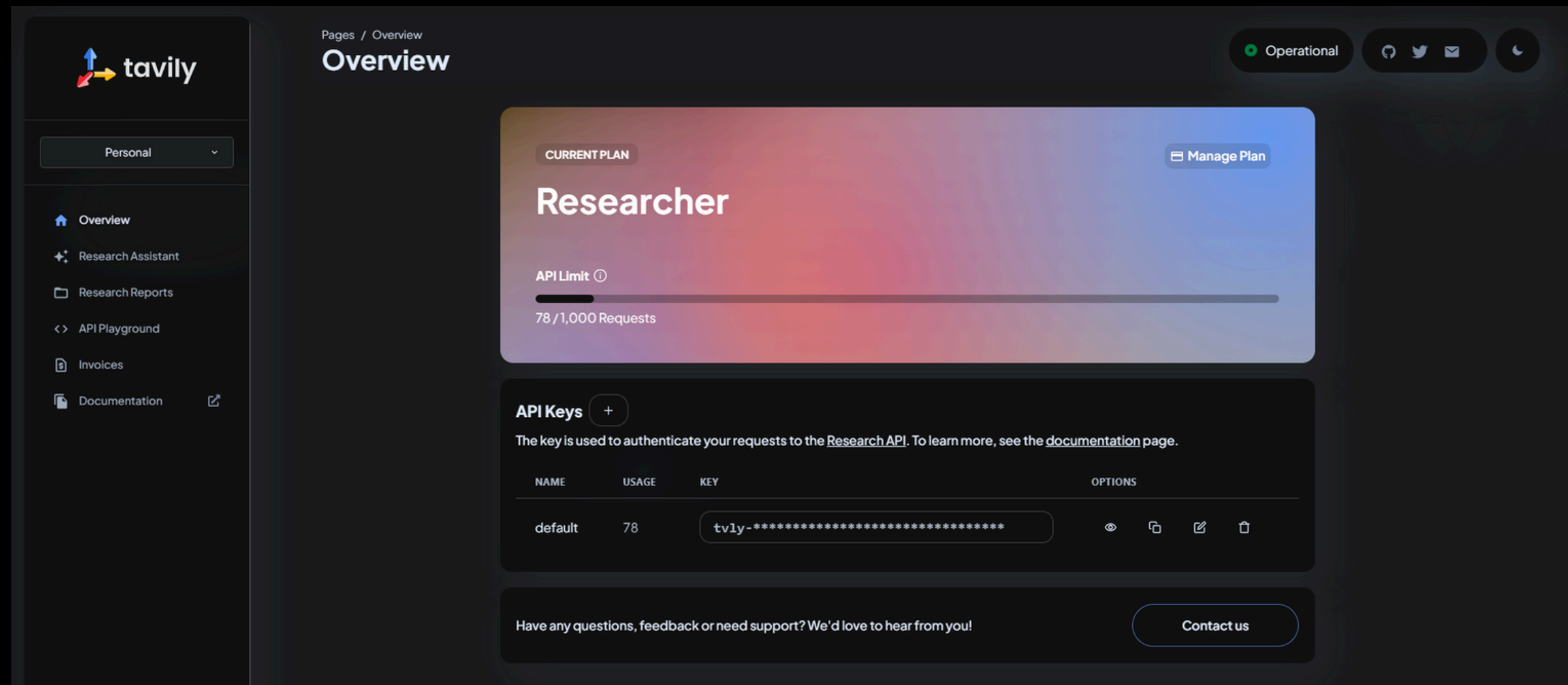




Mistral-7B-Instruct is a language model that can follow instructions, complete requests, and generate creative text formats. It is an instruct version of the Mistral-7B-v0.2 generative text model fine-tuned using a variety of publicly available conversation datasets.

NVIDIA_API_KEY :
<https://build.nvidia.com/mistralai/mistral-7b-instruct-v2>





Create an Account in Tavily:

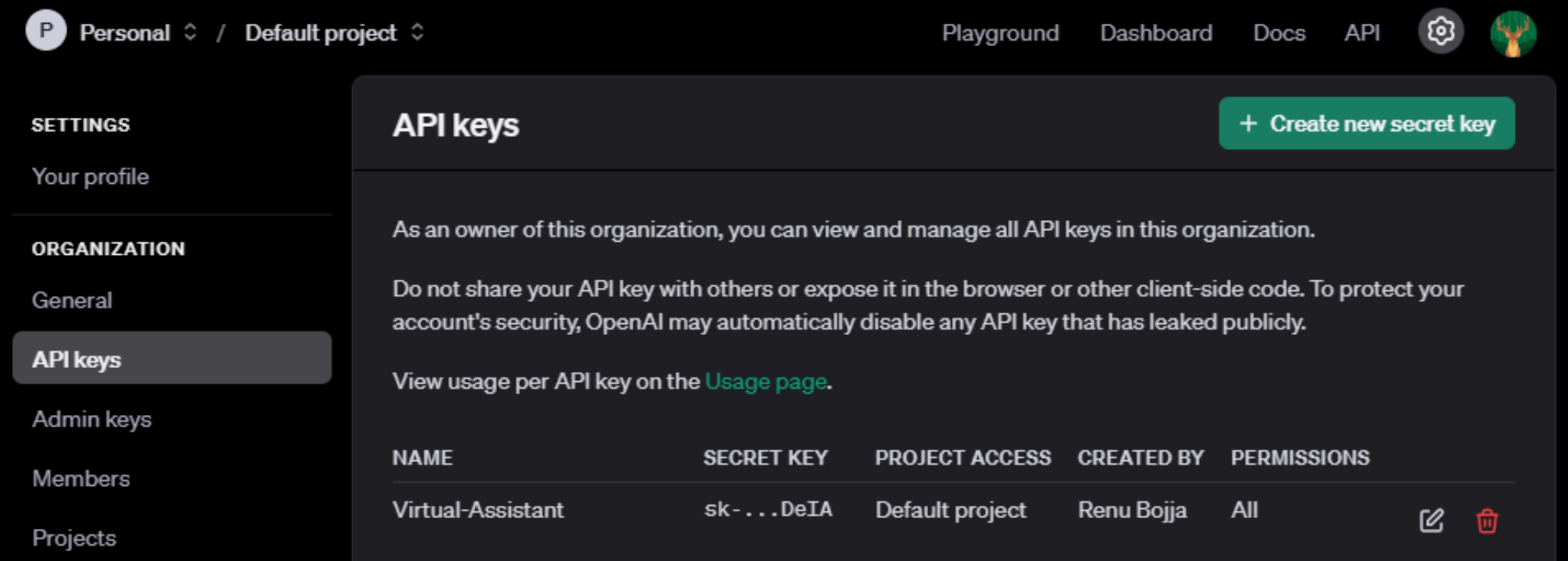
https://app.tavily.com/home?code=wLiopT_LIUD_EsE5VOOHZri5V6DV80B1hqM5eHiFZlIFP&state=eyJy.ZXR1cm5Ubyl6li9ob21lIn0

- Click on API Keys tab on the left
- Create a new secret key
- Each key has around 1000 times approx 100 days

Why Tavily?

- Acts like a research assistant
- easily integrate search functionalities into their applications.
- searching, scraping, filtering and extracting the most relevant information from online sources. All in a single API call!

OPENAI_API_KEY : <https://platform.openai.com/settings/organization/api-key>



File Browser

Environment

Changes

History

Branches

Settings

Environment ● READY

Start Environment

Secrets

Environment variables for configuring sensitive information, like an API key. The name and description are stored and synced, but values are only stored locally. A Secret's value must be set every time the project is cloned to a new Location.

Add

Name	Value	Description	
NVIDIA_API_KEY	*****...	NVIDIA API Key	⋮
TAVILY_API_KEY	*****...	Tavily Search API Key	⋮
OPENAI_API_KEY	*****...	OpenAI API Key	⋮

Base
Packages
Scripts
Variables
Secrets
Mounts
Apps
Compose
Hardware

**Come back to your Workbench and
insert the relevant keys**

- Step 1 : Side bar go to environment
- Step 2: Insert the keys in relevant keys
- Step 3 :Start Environment

Click on Start Environment and then click on Open Control-panel

Browser : <http://localhost:10000/projects/multimodal-virtual-assistant/applications/control-panel/>

localhost:10000/projects/multimodal-virtual-assistant/applications/control-panel/

NVIDIA AI Workbench Virtual Assistant

Enter text and press ENTER

What OS versions are supported by AI Workbench?

How do I fix an inaccessible remote Location?

Clear history

How do I get started with AI Workbench?

How do I create a support bundle in AI Workbench CLI?

Question

Routing

[related to index]

Retrieve Documents

Grade Documents

Any doc irrelevant

Generate Answer

Hallucinations?

Answers question?

Web Search

[unrelated to index]

Welcome

Hide All Settings

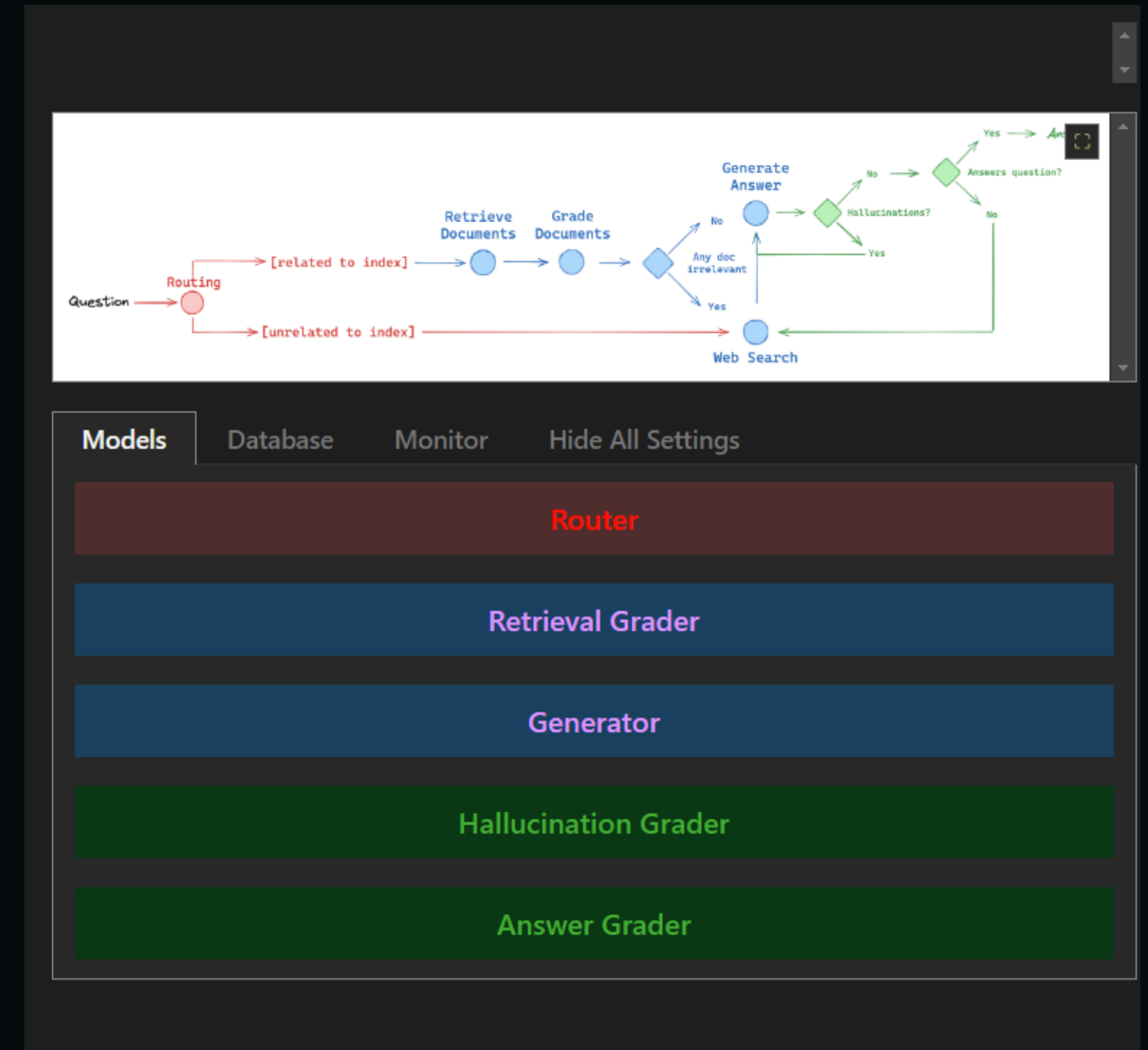
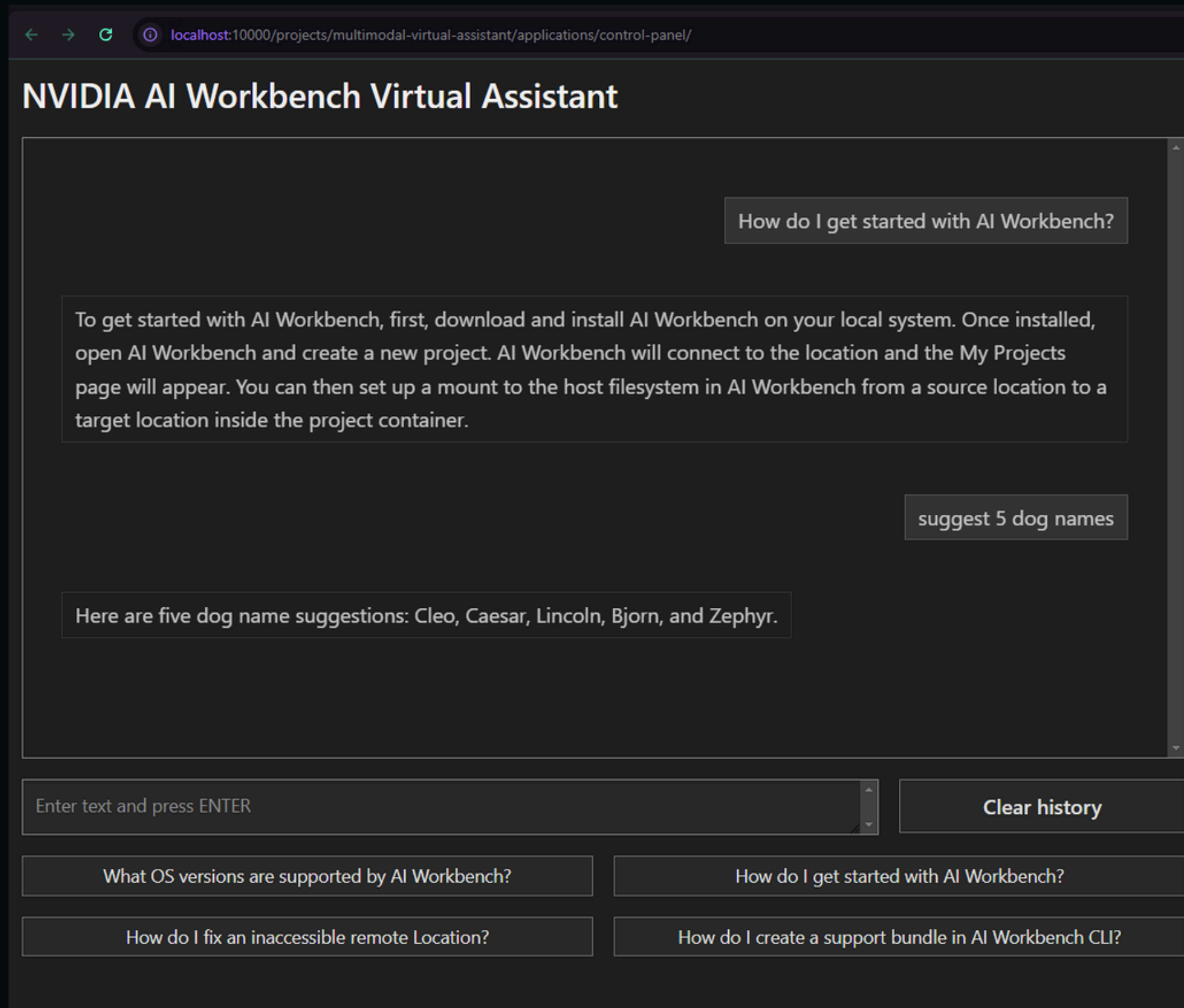
Welcome to your virtual assistant! I can help with all kinds of questions related to NVIDIA AI Workbench. Use me to troubleshoot, get started with, or to simply learn more about AI Workbench.

Press the button below to initialize the application. Happy chatting!

Initialize Virtual Assistant

A visual representation after the website is build

- Left side presents you the chatbot where you can insert the queries
- Right side shows the Rag pipeline on which this is been build



As this is a multimodal chatbot you can also upload pdf ,image ,videos here

The screenshot shows the chatbot's configuration interface. At the top, a flowchart illustrates the logic: a 'Question' is routed to either '[related to index]' (leading to 'Retrieve Documents' and 'Grade Documents') or '[unrelated to index]' (leading to 'Web Search'). Both paths lead to a decision 'Any doc irrelevant?'. If 'No', it proceeds to 'Generate Answer'. If 'Yes', it leads to 'Web Search'. The 'Generate Answer' step leads to a decision 'Hallucinations?'. If 'No', it leads to 'Answers question?'. If 'Yes', it leads to 'Web Search'. The 'Answers question?' decision leads to either 'Answer' (if 'Yes') or 'Web Search' (if 'No').

Below the flowchart, the interface has tabs: 'Models', 'Database', 'Monitor', and 'Hide All Settings'. The 'Database' tab is active, showing instructions: 'Upload webpages, pdfs, images, and videos to the vector store. **Note:** Clearing docs will empty the database!'. Under the 'Database' tab, there are two sub-tabs: 'Webpages' and 'File Upload'. The 'Webpages' sub-tab is selected, showing input fields for 'Webpage URLs' and 'YouTube URLs'.

Here you can insert a you tube URL or a website URL to receive information and ask queries

This screenshot shows the same chatbot configuration interface, but with the 'File Upload' sub-tab selected under the 'Database' tab. The 'Webpages' sub-tab is now inactive. The 'File Upload' sub-tab contains three input fields: 'PDF Upload', 'Image Upload', and 'Video Upload'. At the bottom of this sub-tab is a button labeled 'Clear Docs'. The flowchart at the top remains the same as in the previous screenshot.