

Open WebUI

Open WebUI

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Demonstration environment

Development board: Jetson Orin NX 16GB

SSD: 128G

Tutorial scope

Motherboard model: jetson series, Raspberry Pi 5

Open WebUI is an open source project that aims to provide a simple and easy-to-use user interface (UI) for managing and monitoring open source software and services.

When using Open WebUI, there is a high probability that the dialogue will be unresponsive or timeout. You can try to restart Open WebUI or use the ollama tool to run the model!

Environment requirements

Host and Conda installation of Open WebUI: Node.js >= 20.10, Python = 3.11:

Environment construction method	Difficulty (relatively)
Host	High
Conda	Medium
Docker	Low

The tutorial demonstrates the installation of Open WebUI in Docker.

Docker setup

Official Docker installation

If Docker is not installed, you can use the script to install Docker in one click.

The image we provide has Docker installed, so you don't need to install it yourself!
Domestic users may not be able to install Docker through official methods. We recommend using Alibaba Cloud to install Docker or using our image directly.

- Update the local package list

```
sudo apt update
```

- Upgrade installed packages

```
sudo apt upgrade
```

- Download and run the script

Download the get-docker.sh file and save it in the current directory.

```
sudo apt install curl
```

```
curl -fsSL https://get.docker.com -o get-docker.sh
```

Run the get-docker.sh script file with sudo privileges.

```
sudo sh get-docker.sh
```

Install Docker on Alibaba Cloud

If you cannot install it yourself, please use the image we provide.

- Update the local package list

```
sudo apt update
```

- Install the required software

```
sudo apt install apt-transport-https ca-certificates curl gnupg2 lsb-release  
software-properties-common
```

- Add the GPG key of the software source

```
curl -fsSL https://mirrors.aliyun.com/docker-ce/linux/debian/gpg | sudo gpg --  
dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
```

- Add Alibaba Cloud mirror software source

```
echo "deb [arch=arm64 signed-by=/usr/share/keyrings/docker-archive-keyring.gpg]
https://mirrors.aliyun.com/docker-ce/linux/debian bookworm stable" | sudo tee
/etc/apt/sources.list.d/docker.list > /dev/null
```

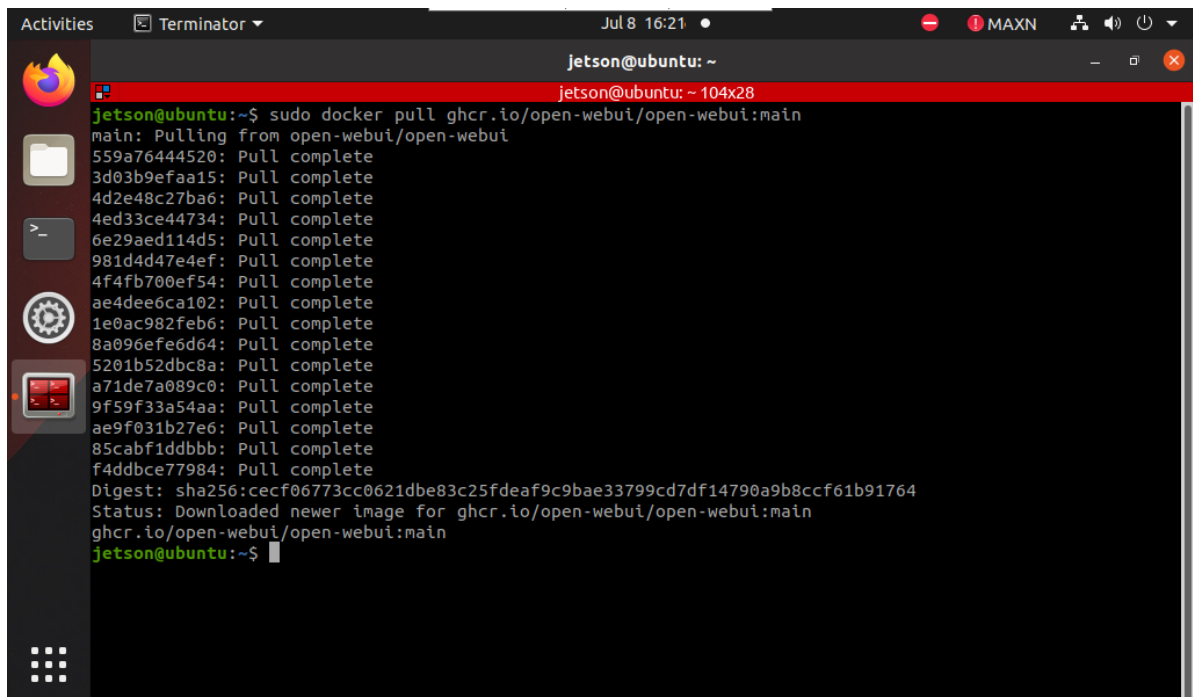
- Install Docker

```
sudo apt update
sudo apt install docker-ce docker-ce-cli containerd.io docker-compose-plugin
```

Open WebUI installation

For systems with Docker installed, you can directly enter the following command in the terminal:

```
sudo docker pull ghcr.io/open-webui/open-webui:main
```

A screenshot of a terminal window titled 'jetson@ubuntu: ~' with a red header bar. The terminal shows the command 'sudo docker pull ghcr.io/open-webui/open-webui:main' being executed. The output displays a list of layers being pulled, each marked as 'Pull complete'. The final status message indicates that a newer image was downloaded for the specified repository. The prompt returns to 'jetson@ubuntu:~\$'.

```
jetson@ubuntu:~$ sudo docker pull ghcr.io/open-webui/open-webui:main
main: Pulling from open-webui/open-webui
559a76444520: Pull complete
3d03b9efaa15: Pull complete
4d2e48c27ba6: Pull complete
4ed33ce44734: Pull complete
6e29aed114d5: Pull complete
981d4d47e4ef: Pull complete
4f4fb700ef54: Pull complete
ae4dee6ca102: Pull complete
1e0ac982feb6: Pull complete
8a096efe6d64: Pull complete
5201b52dbc8a: Pull complete
a71de7a089c0: Pull complete
9f59f33a54aa: Pull complete
ae9f031b27e6: Pull complete
85cabf1ddbbb: Pull complete
f4ddbce77984: Pull complete
Digest: sha256:cec06773cc0621dbe83c25fdeaf9c9bae33799cd7df14790a9b8ccf61b91764
Status: Downloaded newer image for ghcr.io/open-webui/open-webui:main
ghcr.io/open-webui/open-webui:main
jetson@ubuntu:~$
```

Open WebUI operation

Enter the following command in the terminal to start the specified Docker:

```
sudo docker run --network=host -v open-webui:/app/backend/data -e
OLLAMA_BASE_URL=http://127.0.0.1:11434 --name open-webui --restart always
ghcr.io/open-webui/open-webui:main
```

```
Activities Terminal Jul 8 19:05 jetson@ubuntu: ~
jetson@ubuntu:~$ sudo docker run --network=host -v open-webui:/app/backend/data -e OLLAMA_BASE_URL=http://127.0.0.1:11434 --name open-webui --restart always ghcr.io/open-webui/open-webui:main
Loading WEBUI_SECRET_KEY from file, not provided as an environment variable.
Generating WEBUI_SECRET_KEY
Loading WEBUI_SECRET_KEY from .webui_secret_key
INFO: Started server process [1]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: Uvicorn running on http://0.0.0.0:8080 (Press CTRL+C to quit)
/app
/app

Open WebUI

v0.3.7 - building the best open-source AI user interface.
https://github.com/open-webui/open-webui

INFO:apps.openai.main:get_all_models()
INFO:apps.ollama.main:get_all_models()
INFO: 127.0.0.1:48604 - "GET /health HTTP/1.1" 200 OK
INFO: 127.0.0.1:48610 - "GET /health HTTP/1.1" 200 OK
```

After successful startup, use the following URL to access in the browser:

`http://localhost:8080/`

Administrator account

For the first use, you need to register an account yourself. This account is an administrator account. You can fill in the information as required!

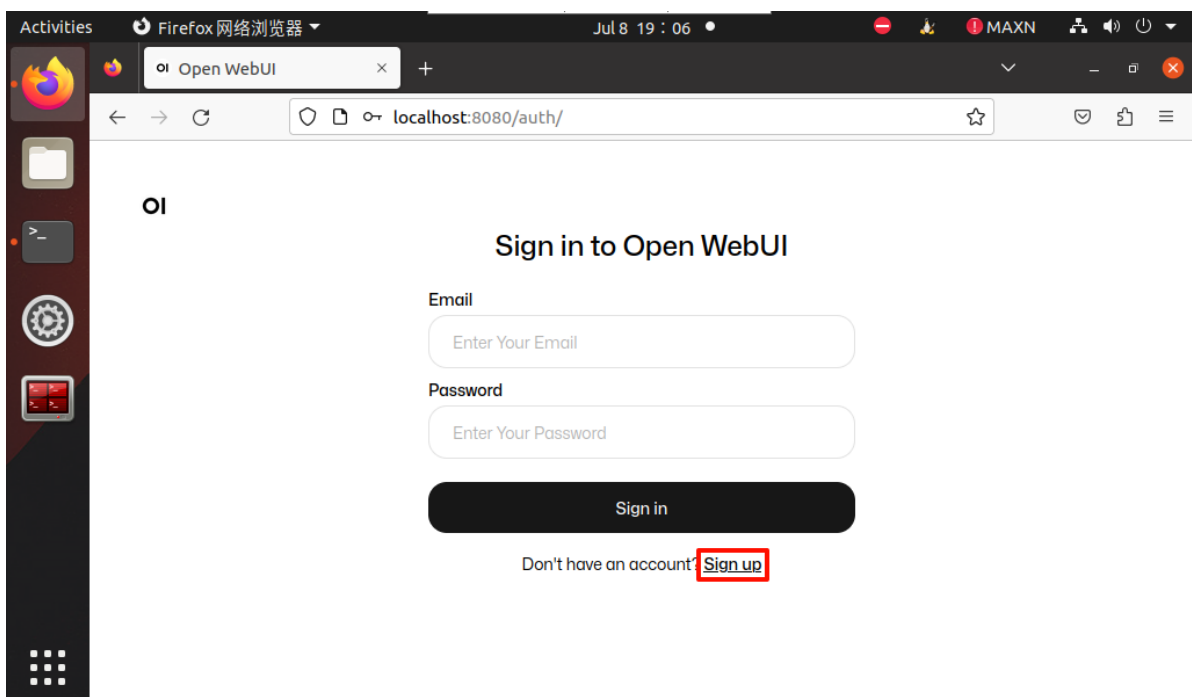
Since all the contents of our mirror have been set up and tested, users can log in directly using our registered account:

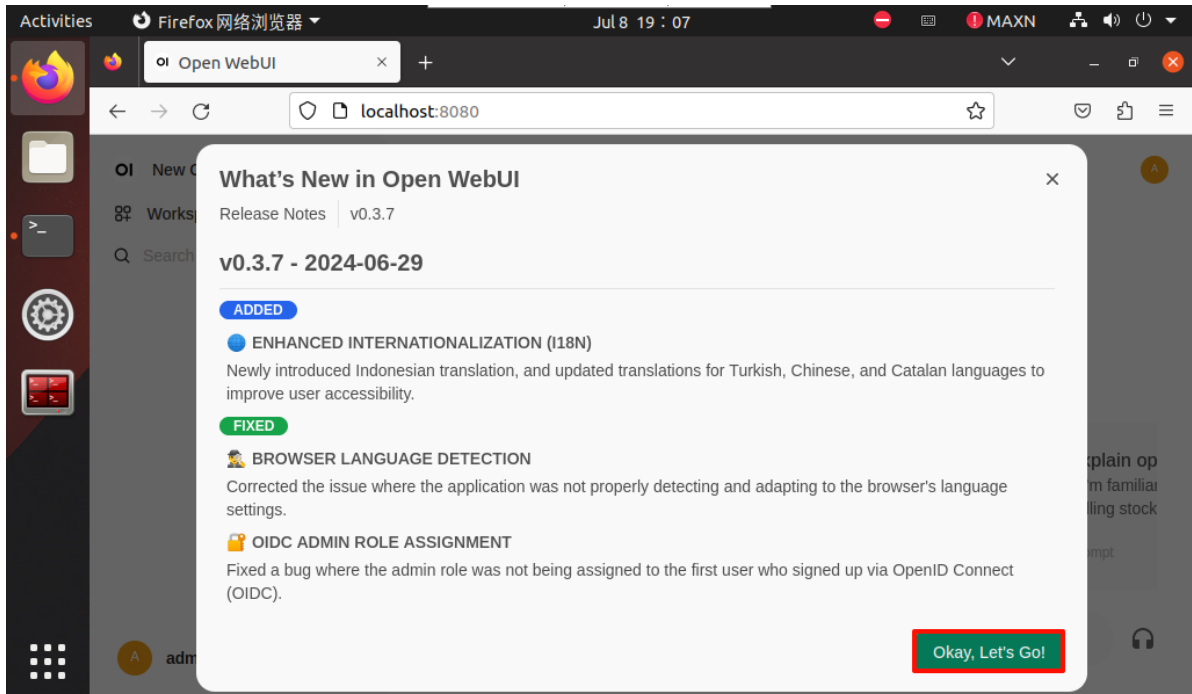
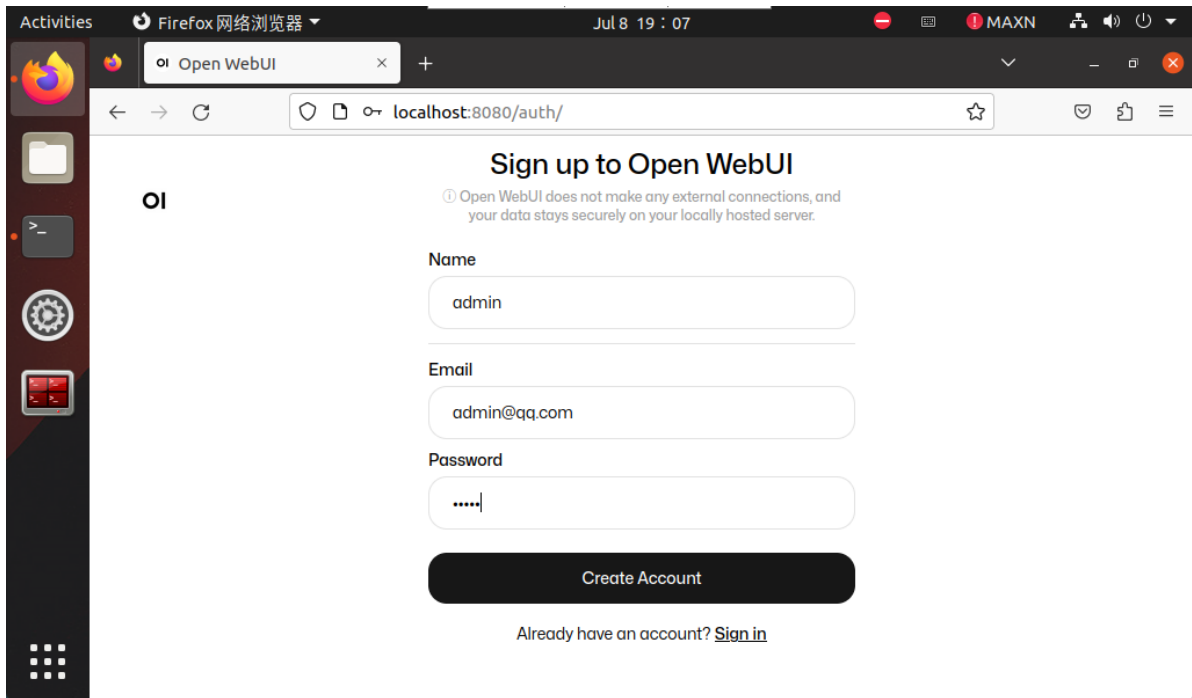
Username: admin

Email: admin@qq.com

Password: admin

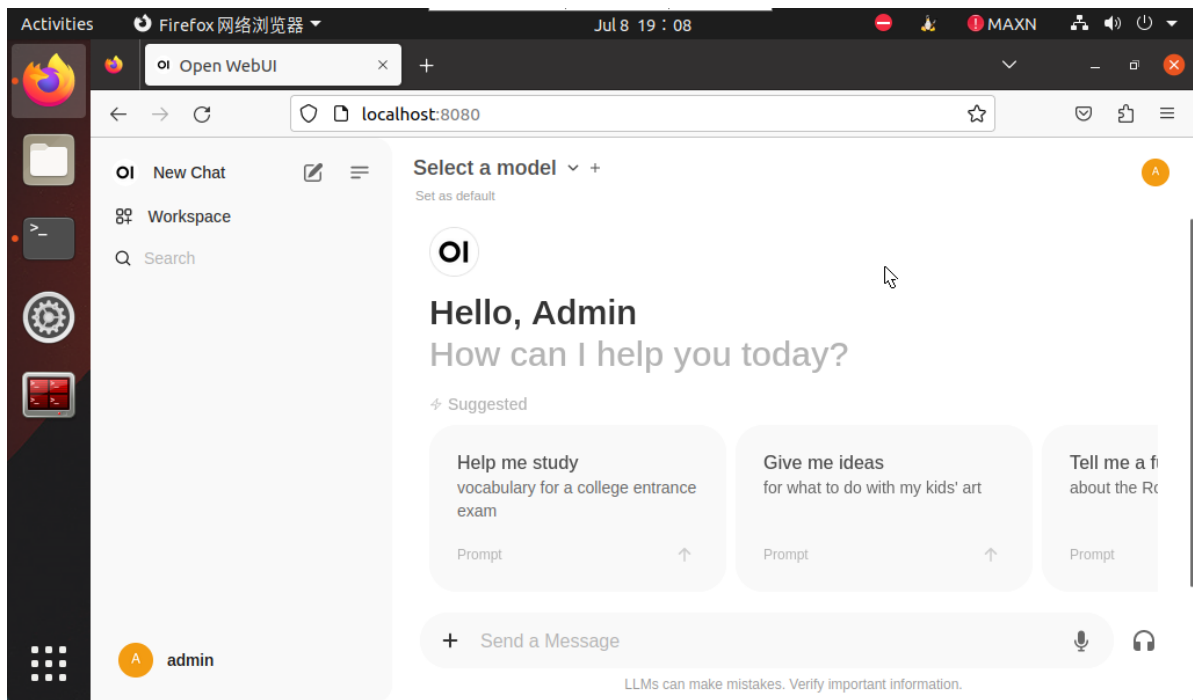
Register and log in





Since we have already registered: admin account, just log in directly!

User interface



Model dialogue

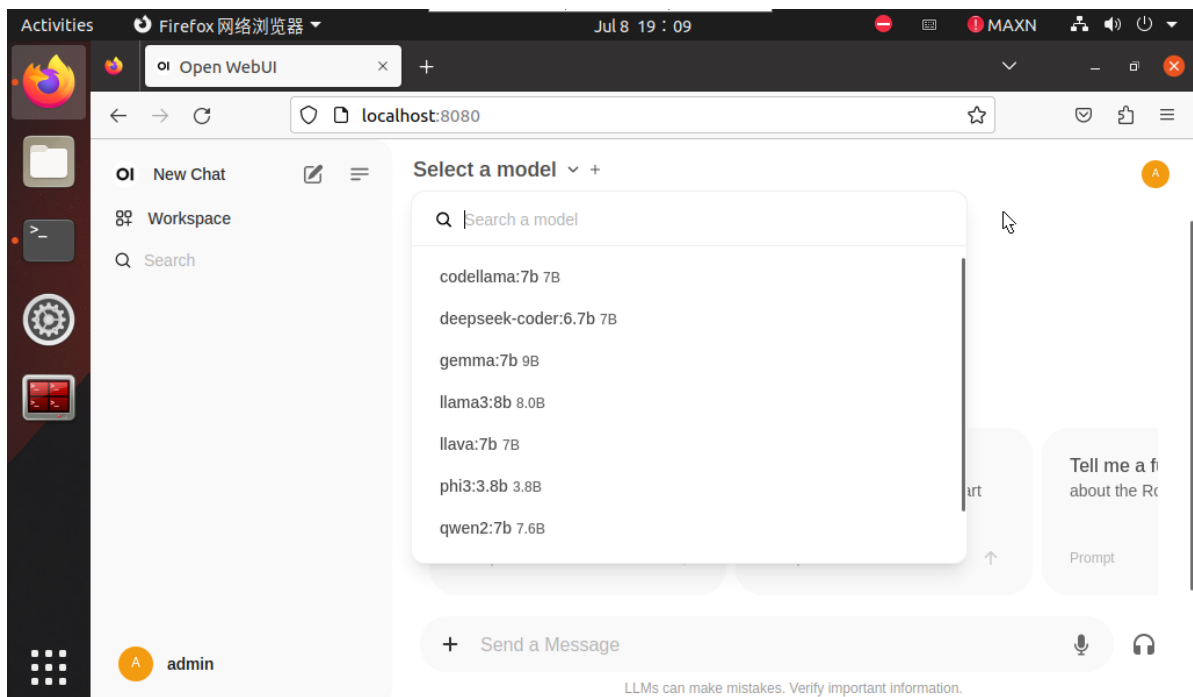
Using Open WebUI for dialogue will run slower than using the Ollama tool directly, and may even cause a timeout service connection failure. This is related to the motherboard's memory and cannot be avoided!

Users with ideas can switch to other Linux environments to build the ollama tool and Open webUI tool for dialogue

Switch model

Click `Select a model` to select a specific model for dialogue.

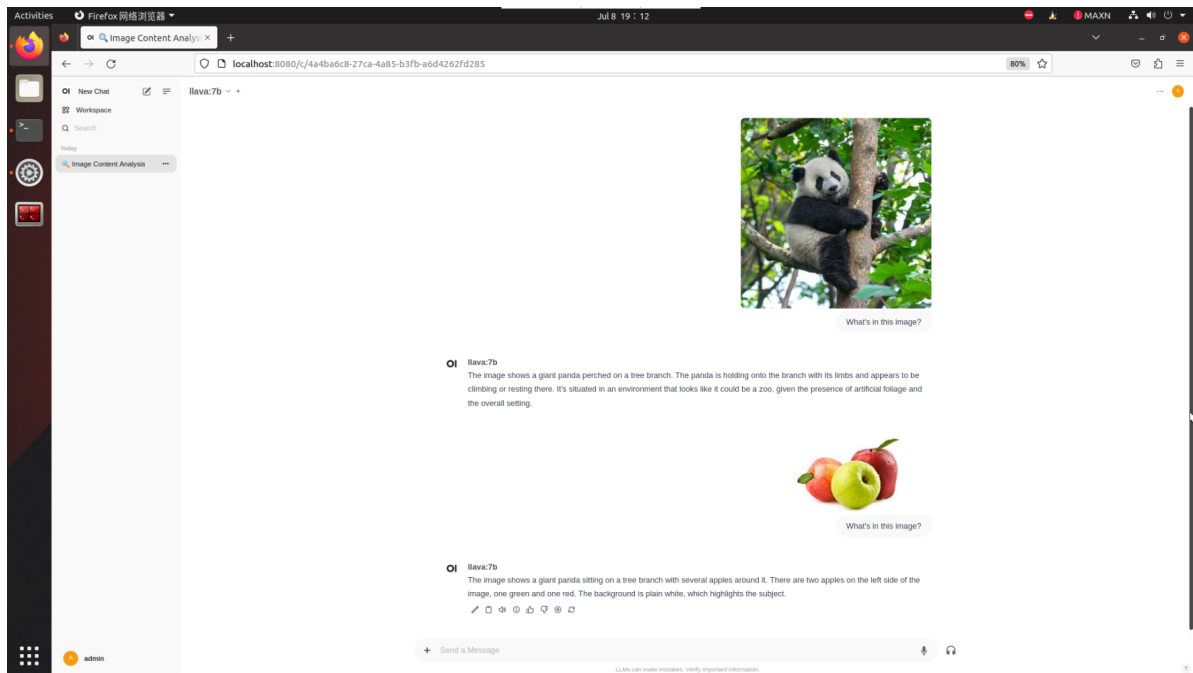
The model pulled using ollama will be automatically added to the open webUI model option. Refresh the webpage and the new model will appear!



Demonstration: LLaVA

The LLaVA case demonstrated requires 8G or even more to run. Users can use other cases to test the Open WebUI dialogue function!

what's in this image?



Frequently Asked Questions

Close Open WebUI

Close the self-starting Open WebUI.

- View running Docker

```
docker ps
```

- Shut down running Docker

```
docker stop [CONTAINER ID] # Example docker stop 5f42ee9cf784
```

- View stopped containers

```
docker ps -a
```

- Clean up stopped containers

```
docker rm [CONTAINER ID] # Example docker rm 5f42ee9cf784
```

Clean up all stopped containers:

```
docker container prune
```

Common Errors

Unable to start Open WebUI

- docker: Error response from daemon: Conflict. The container name "/open-webui" is already in use by container "cfc05c84f8e38b290337e7178c76fd1c49076f94b11ed3d49d9448be72b7f20f". You have to remove (or rename) that container to be able to reuse that name.

Solution: Close Open WebUI once and restart!

Service connection timeout

- Open WebUI: Server Connection Error

Close Open WebUI once and restart, then ask again or run the model with the Ollama tool to ask questions!