Open WebUI

| **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
```
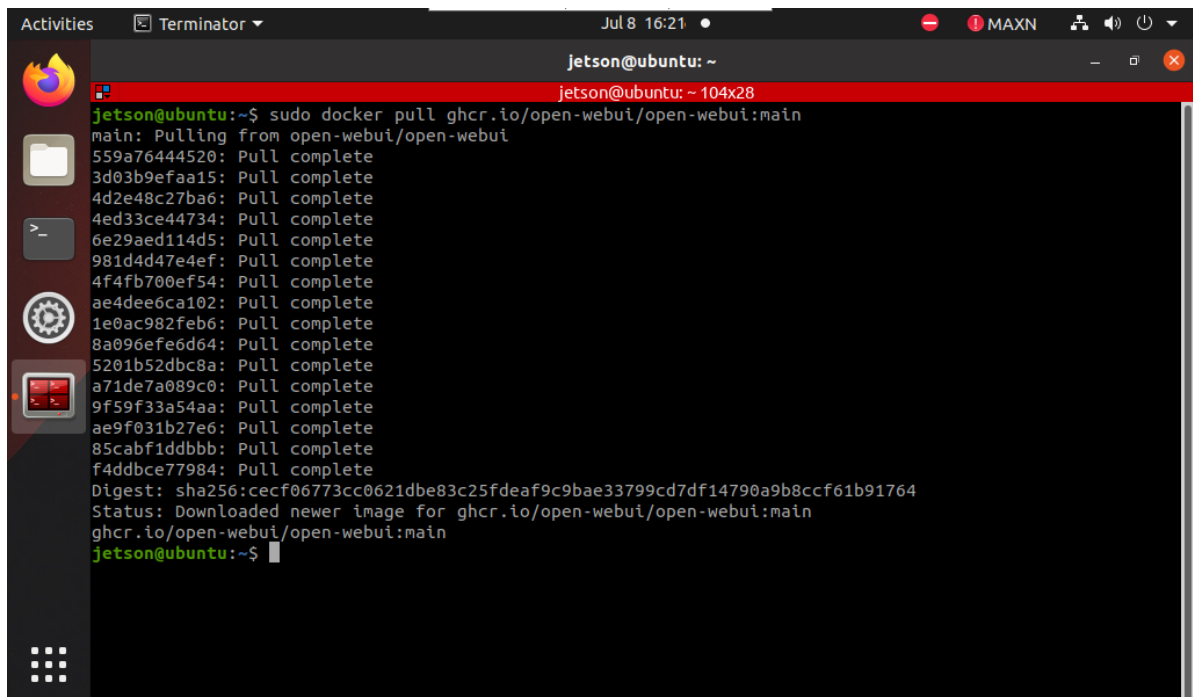
- Install Docker

```
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
```


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
```

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!
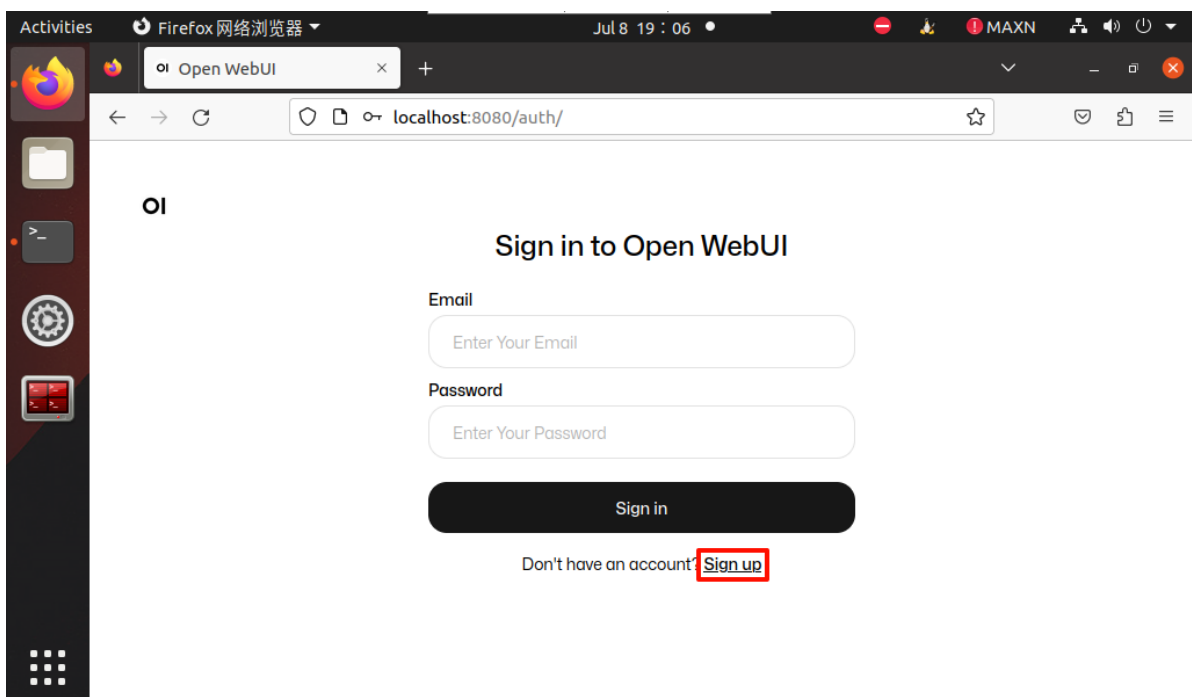
```
Since all the contents of our mirror have been set up and tested, users can log
in directly using our registered account:
Username: admin
Email: admin@qq.com
Password: admin
```
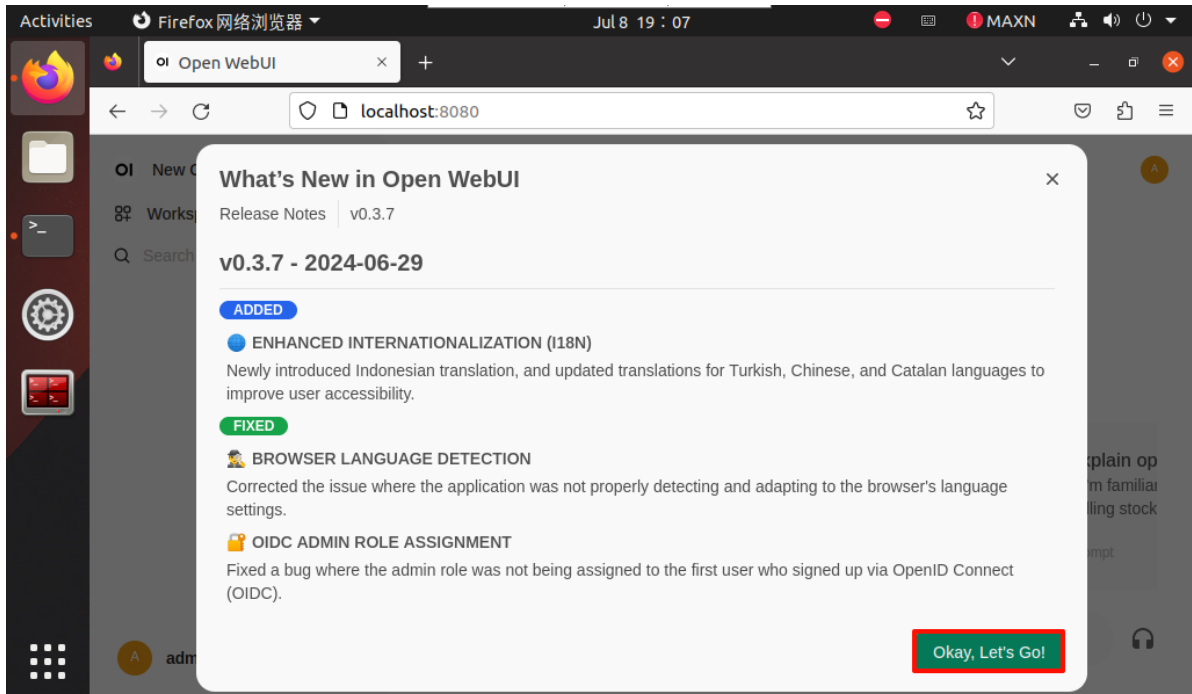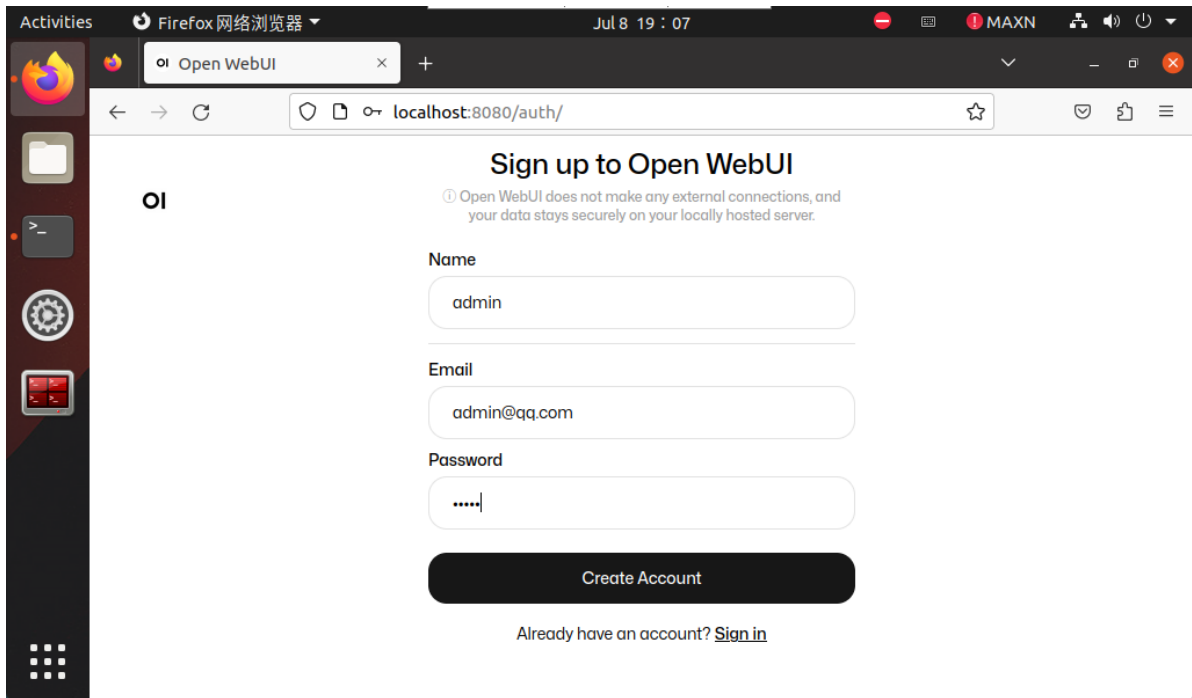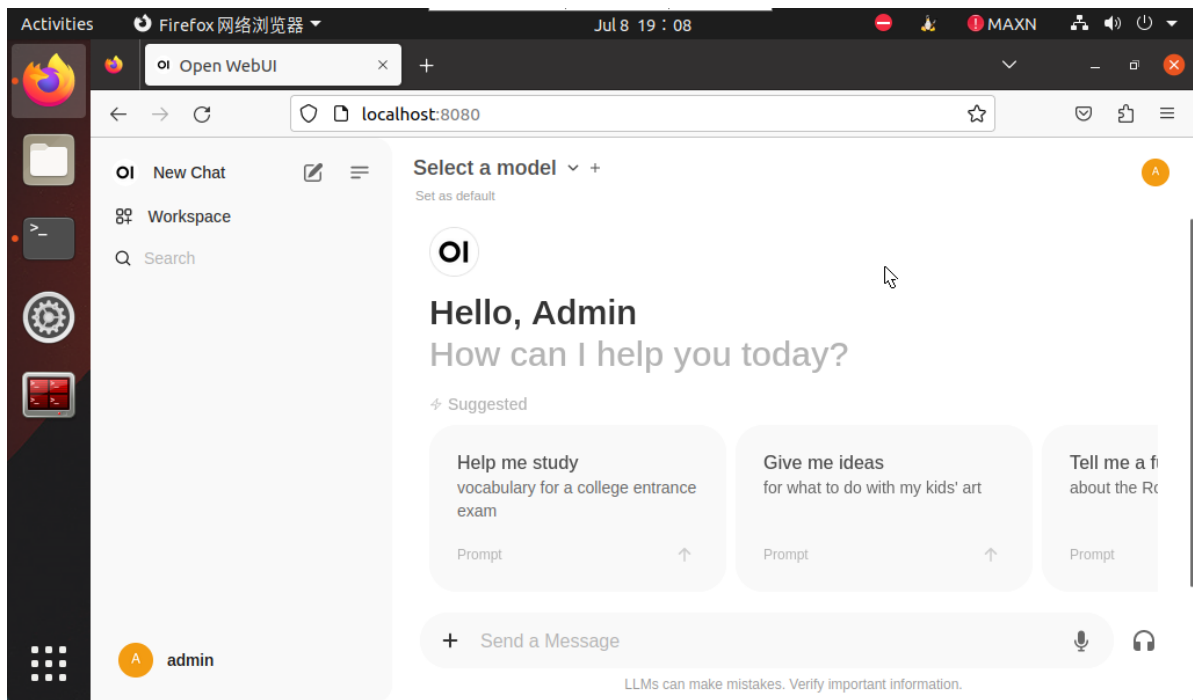
Register and log in

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!
```
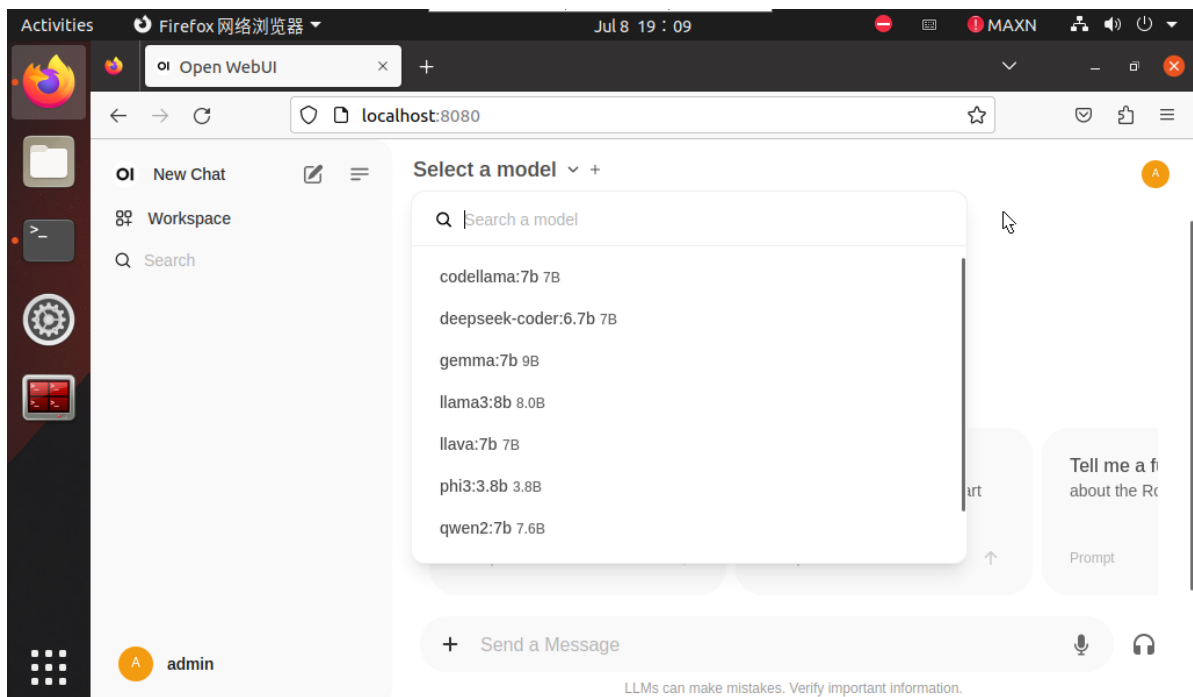
Demonstration: LLaVA

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?
```
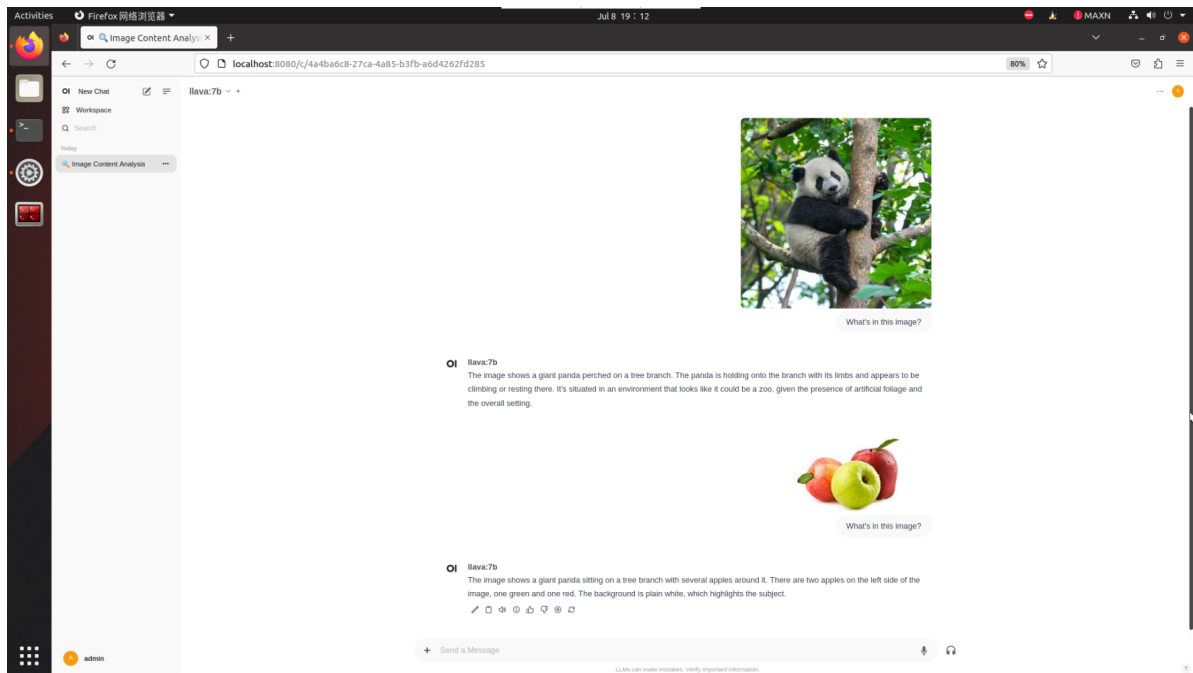

Frequently Asked Questions

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!