Open WebUI

> **Demonstration environment**

Development Board : Raspberry Pi 5B

SD(TF)card: 64G (Above 16G, the larger the capacity, the more models can be experienced)

```
Raspberry Pi 5B (16G RAM): Run 14B and below parameter models
Raspberry Pi 5B (8G RAM): Run 8B and below parameter models
Raspberry Pi 5B (4G RAM): Run 3B and below parameter models
Raspberry Pi 5B (2G RAM): Run 0.5B and below parameter models
```

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

```
There is a high probability of unresponsive or timeout conversations when using
Open WebUI. You can try restarting Open WebUI or using Ollama tools to run the
model!
```

Environmental requirements

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

Environmental construction method	Difficulty level
Host	High
Conda	Middle
Docker	Low

Tutorial demonstration of Docker installing Open WebUI.

Docker build

Official installation of Docker

If Docker is not installed, you can use a script to install Docker.

```
The Raspberry Pi 5 image provided by Yahboom has Docker installed, so you don't
need to install it yourself!
```

- Input the following command to update the local package list

```
sudo apt update
```

- Input the following command to upgrade installed software packages

```
sudo apt upgrade
```

- Download and run scripts

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
```

Input the following command to run the get docker. sh script file with sudo permissions.

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

Install Docker on Alibaba Cloud

If you cannot install it by yourself, please use the image Yahboom provided.

- Input the following command to update the local package list

```
sudo apt update
```

- Input the following command to install essential software

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

- Input the following command to add GPG key for software source

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

- Input the following command to 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
```

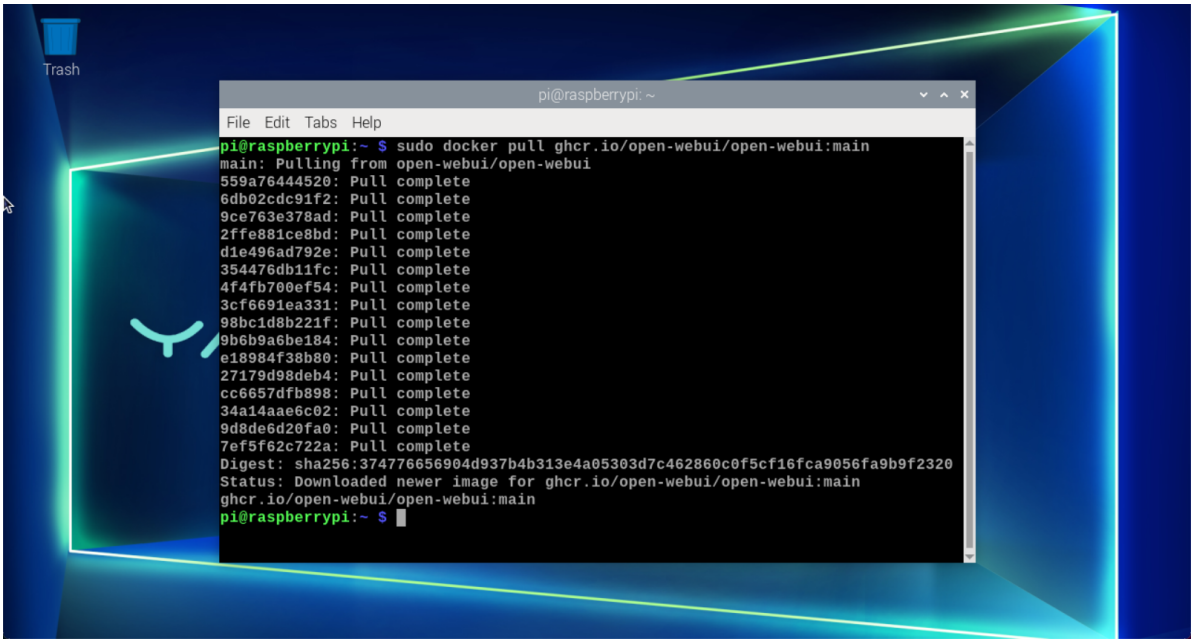
- Install Docker

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

Install Open WebUI

For systems with Docker installed, you can directly enter the following command on the terminal.

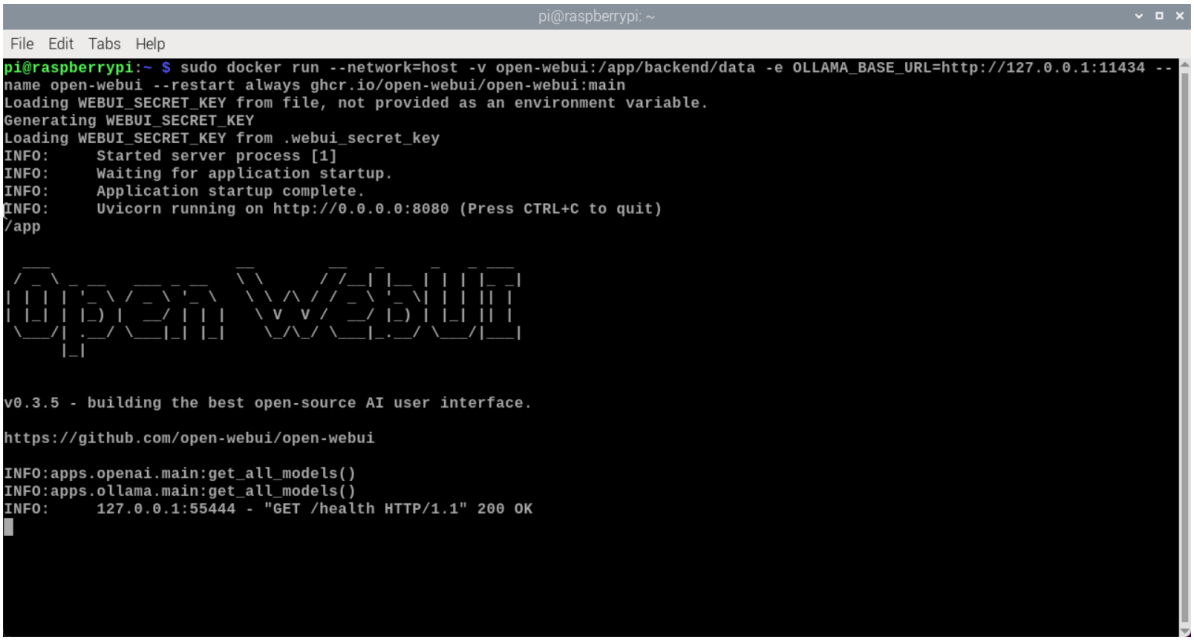
```
sudo docker pull ghcr.io/open-webui/open-webui:main
```



Run Open WebUI

Input the following command to start 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, access the following website in your browser.

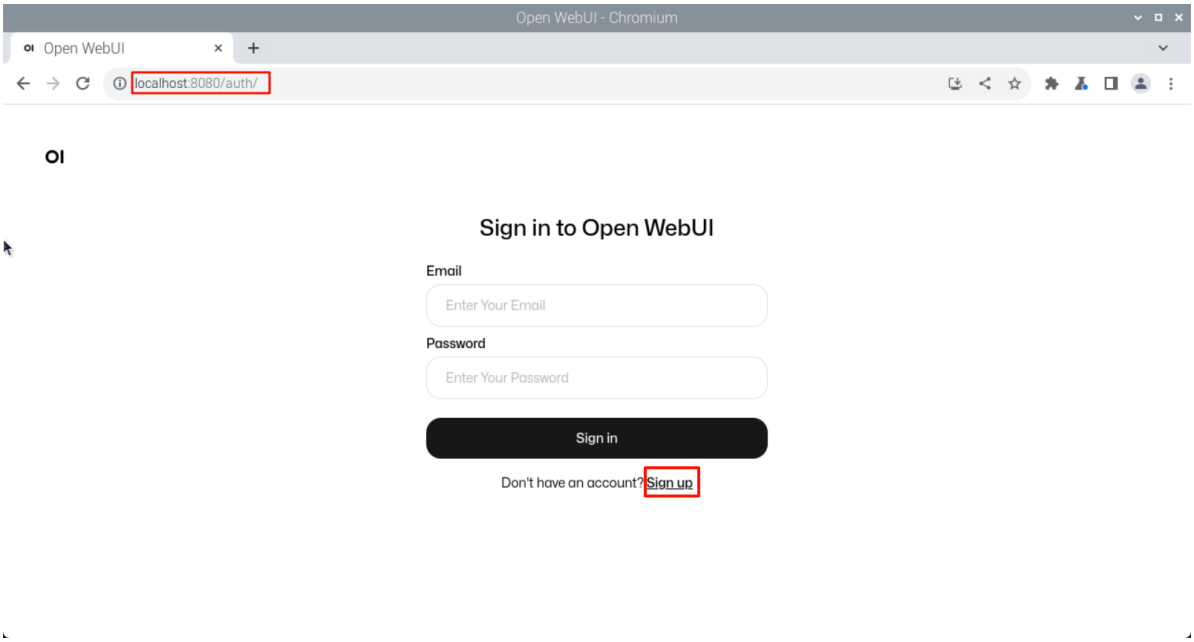
```
http://localhost:8080/
```

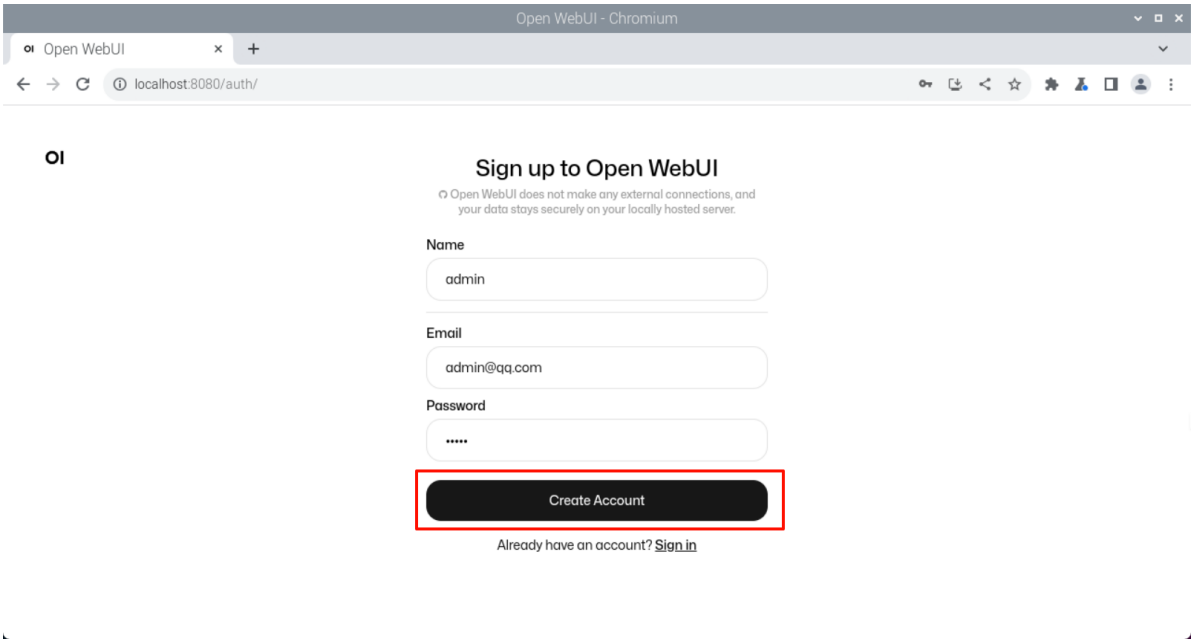
Administrator account

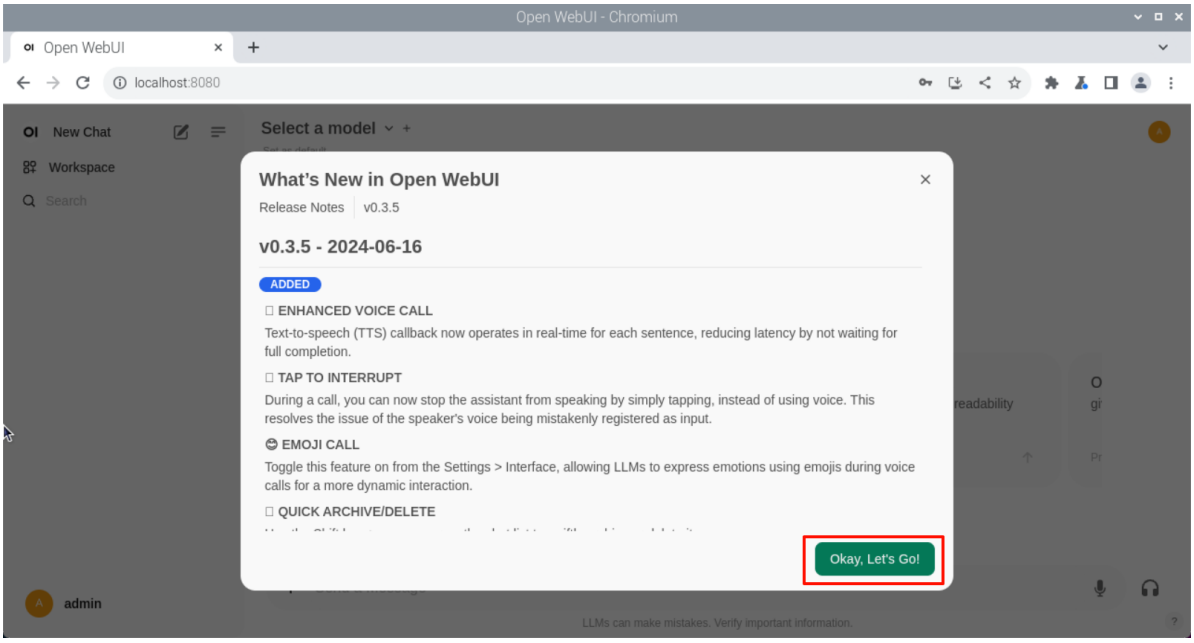
The first time you use it, you need to register an account yourself. This account is an administrator account, and you can fill in the information according to the requirements!

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

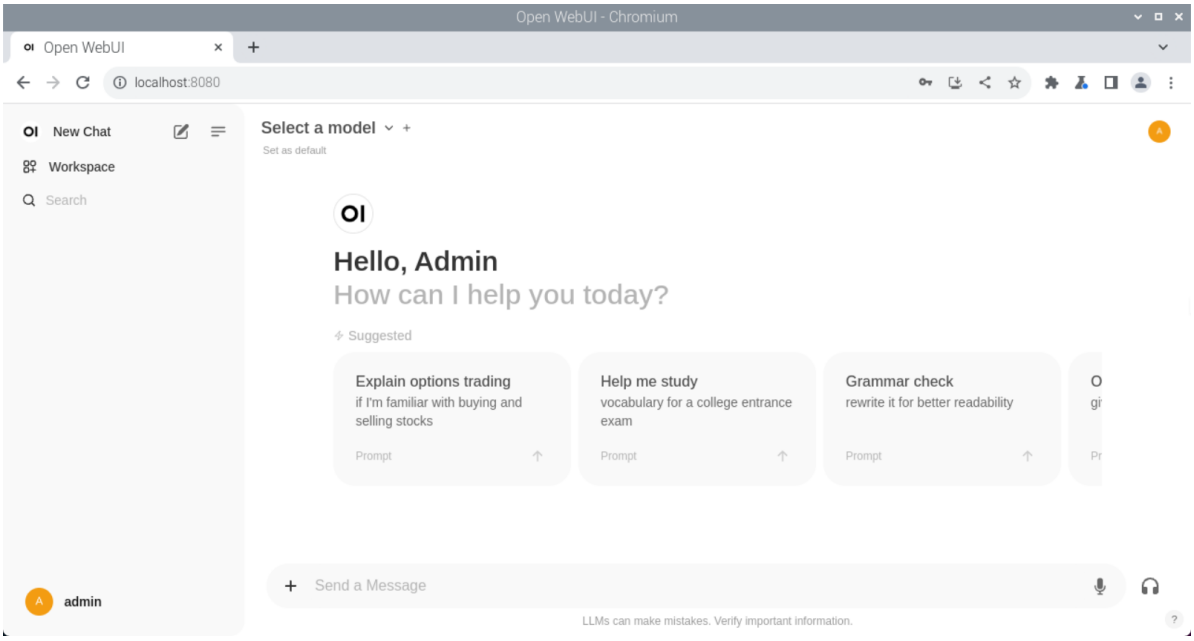
Register and log in







Using the interface



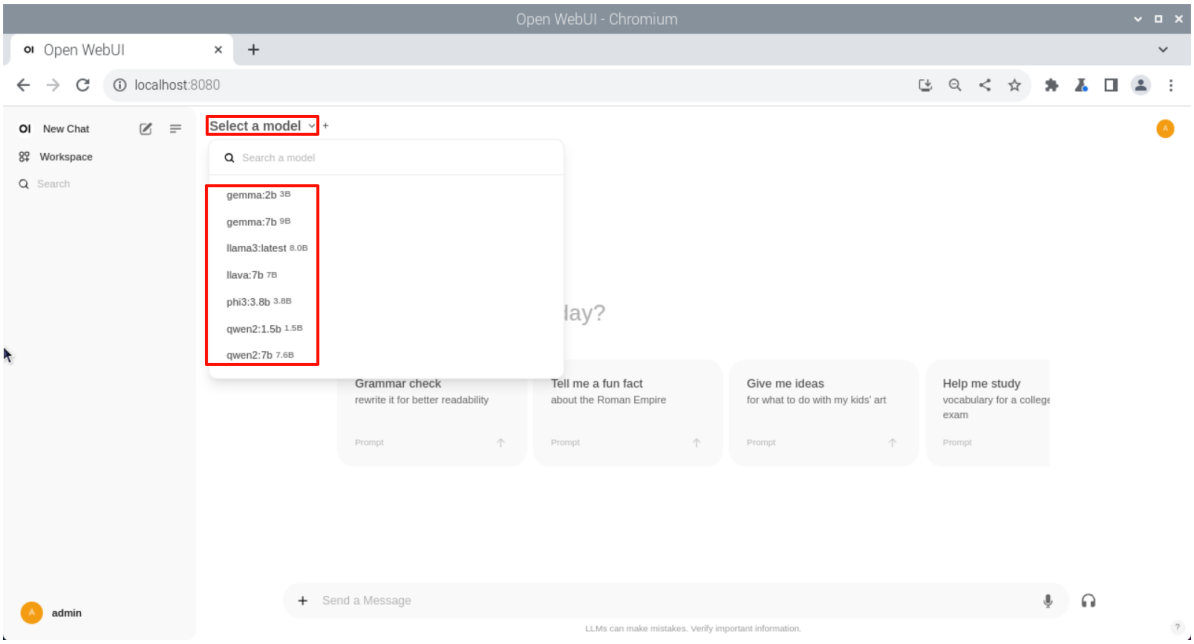
Model dialogue

Using Open WebUI for conversations can run slower than directly using Ollama tools, and even cause timeout service connection failures, which is related to the memory of Raspberry Pi 5 and cannot be avoided!

Switch models

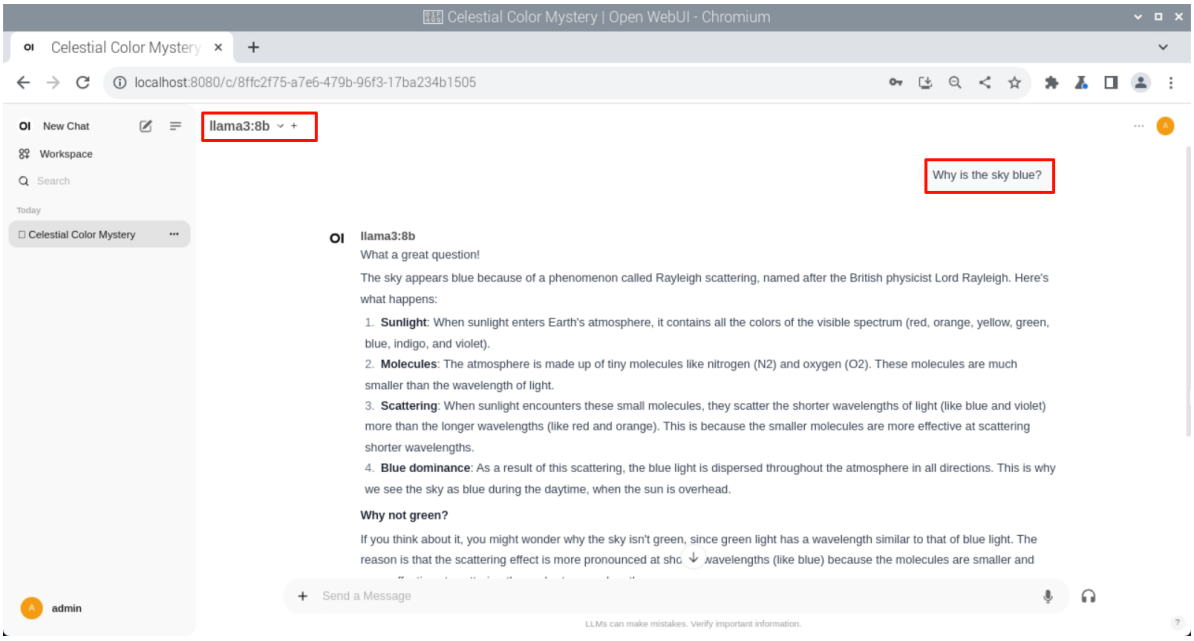
Click on 'Select a model' to select the specified model dialogue.

```
The model pulled using Ollama will be automatically added to the Open WebUI model option, and a new model will appear when refreshing the webpage!
```



Llama3

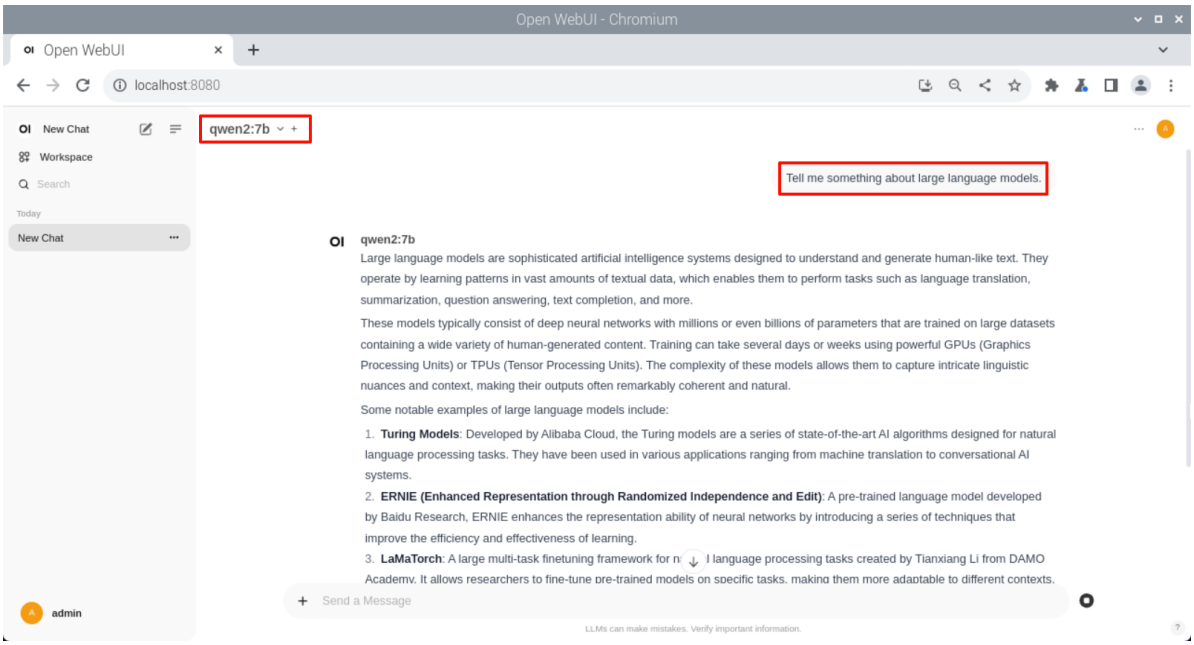
```
Why is the sky blue?
```



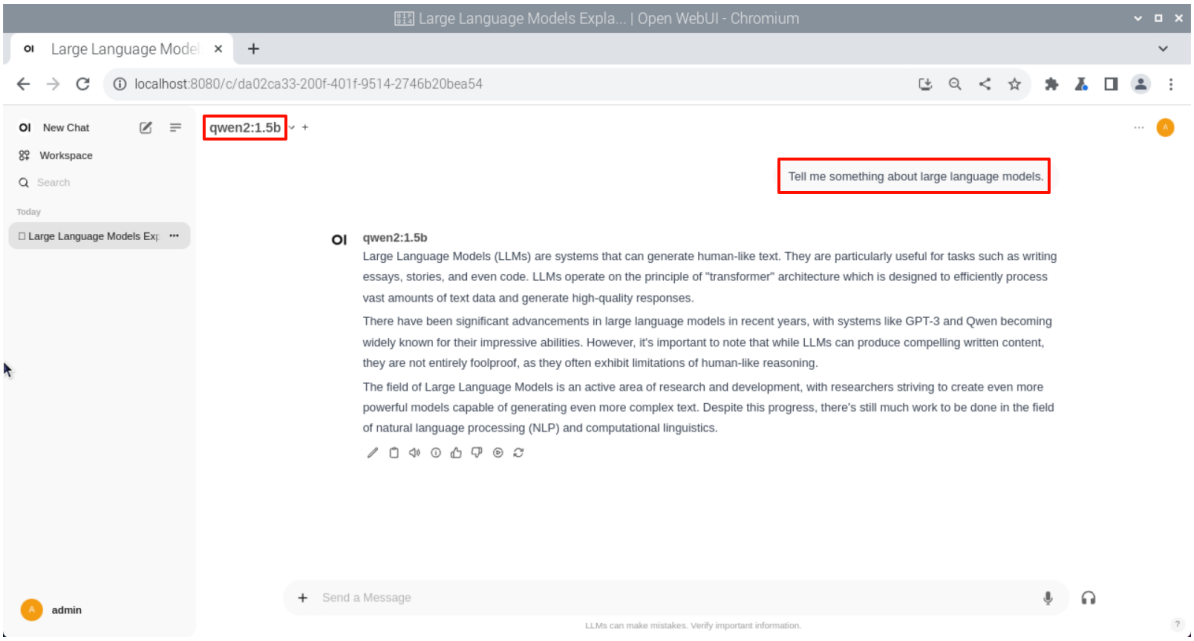
Qwen2

```
Tell me something about large language models.
```

Raspberry Pi 5B (8G RAM)



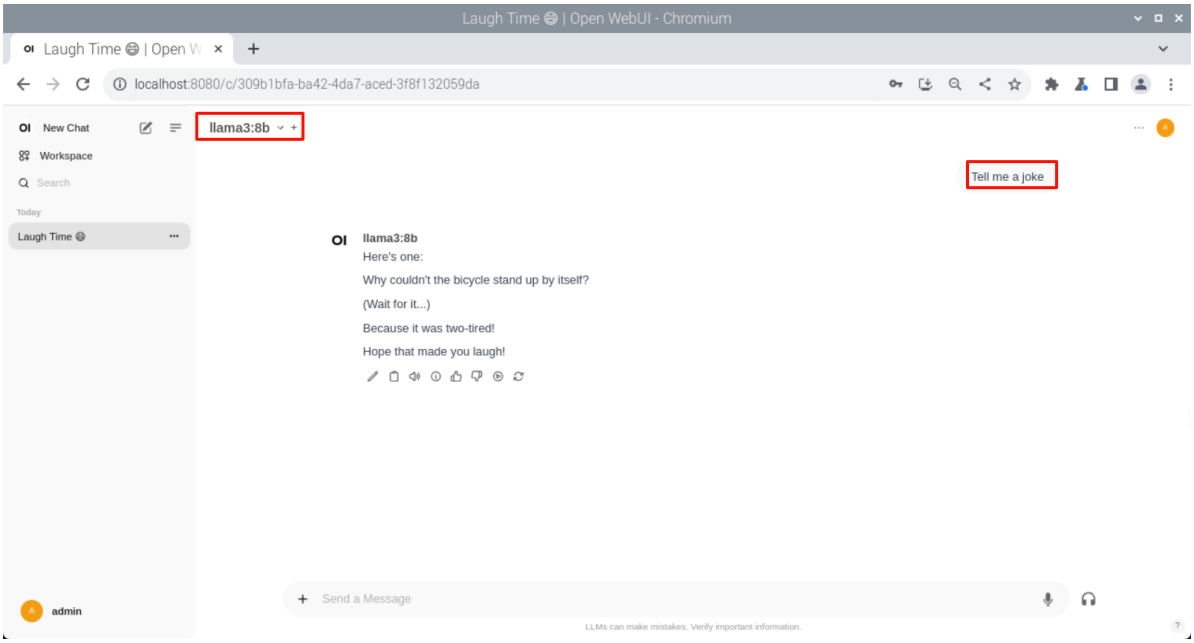
Raspberry Pi 5B (4G RAM)



LLaVA

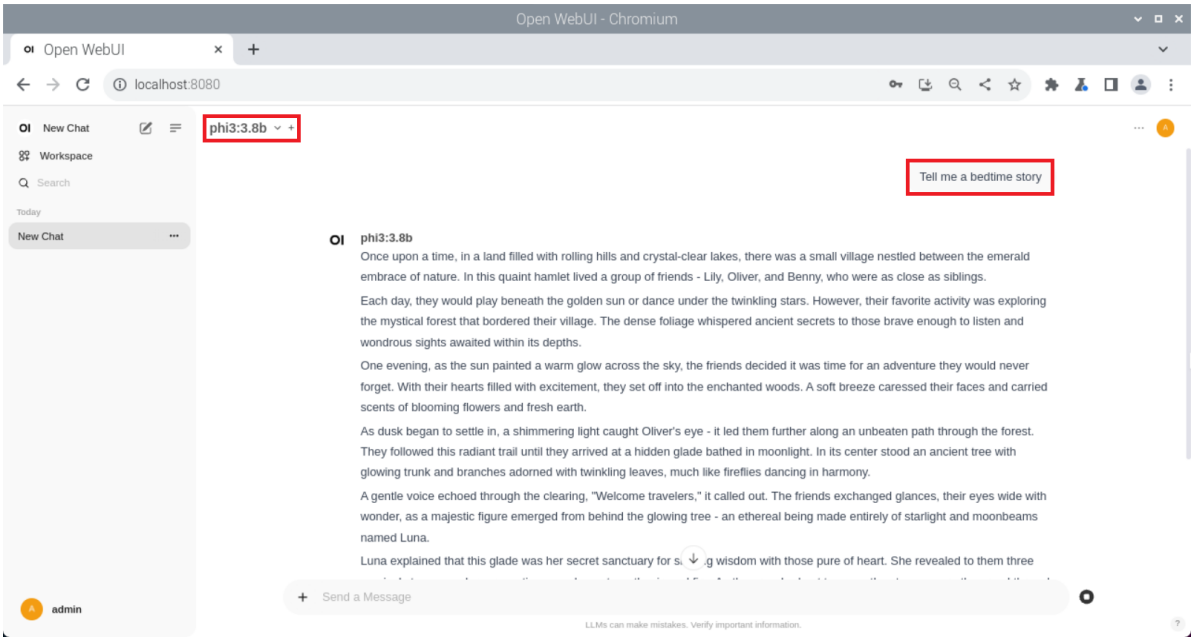
Raspberry Pi 5 8G RAM version may cause service connection timeout when recognizing images. It is recommended to directly use the Ollama tool to run the LLaVA model for image recognition!

```
Tell me a joke
```



Phi-3

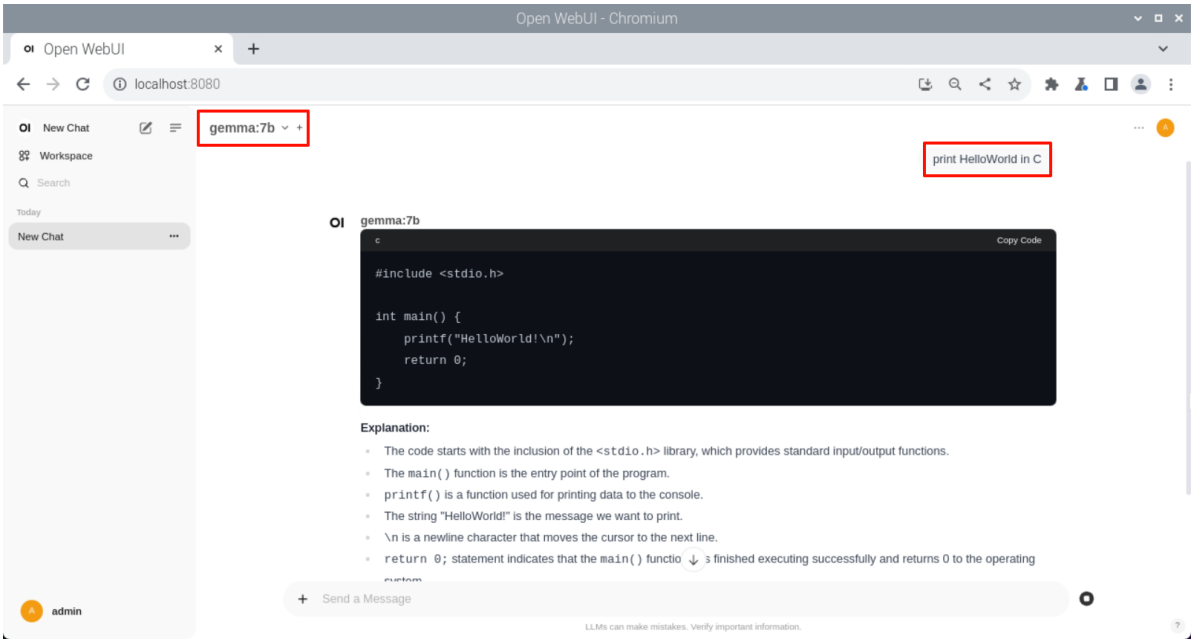
```
Tell me a bedtime story
```



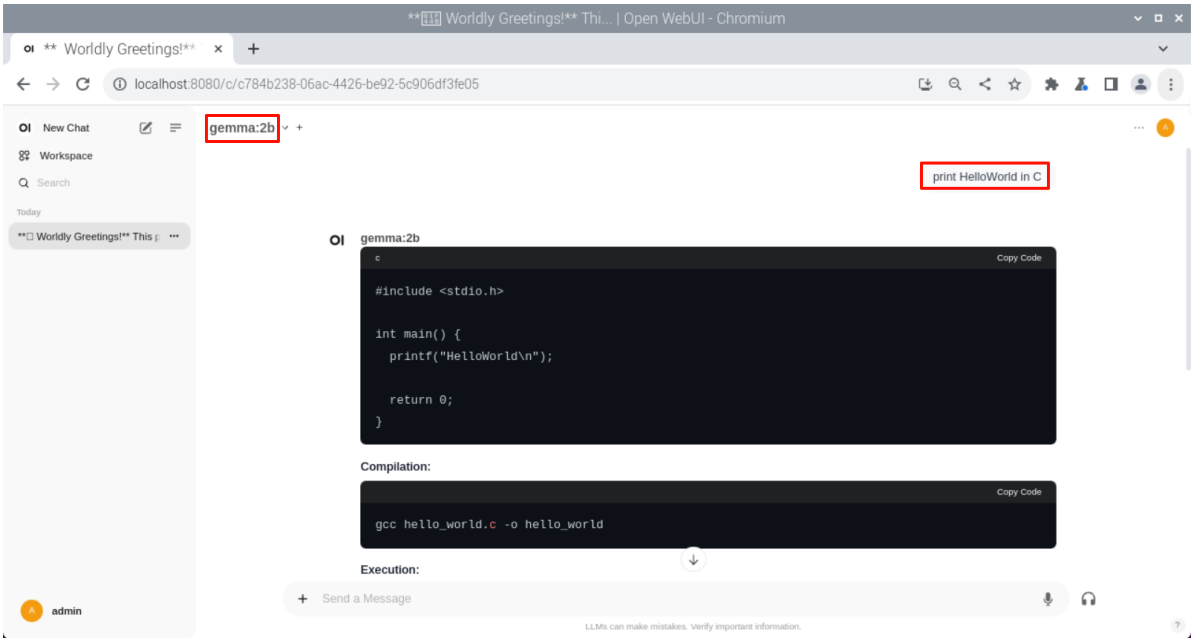
Gemma

```
print HelloWorld in C
```

> ### Raspberry Pi 5B (8G RAM)

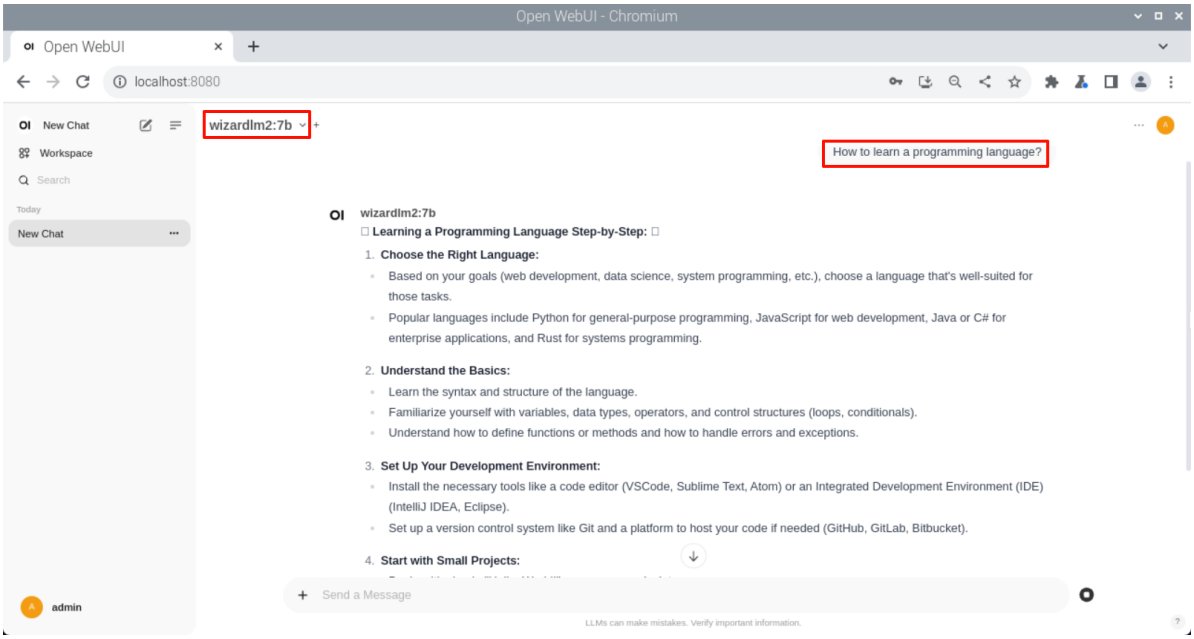


Raspberry Pi 5B（4G RAM）



WizardLM2

```
How to learn a programming language?
```



FAQ

Close Open WebUI

Turn off self-booting Open WebUI

- View running Dockers

```
docker ps
```

- Close running Dockers

```
docker stop [CONTAINER ID]  # Eg: docker stop 5f42ee9cf784
```

- Viewing stopped containers

```
docker ps -a
```

- Clean stopped containers

```
docker rm [CONTAINER ID]    # Eg: docker rm 5f42ee9cf784
```

Clean up all containers that have stopped running

```
docker container prune
```

Common mistake

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 use Ollama tool to run the model for questioning!