Set Up NXINX in docker

See: https://www.youtube.com/watch?v=qlcVx-k-02E&t=209s&ab_channel=Wolfgang%27sChannel

Install docker and docker compose

```
sudo apt install docker-compose
```

Create the yaml file to install nginx service

https://github.com/NginxProxyManager/nginx-proxy-manager

```
services:
app:
image: 'docker.io/jc21/nginx-proxy-manager:2.12.2'
restart: unless-stopped
ports:
- '80:80'
- '81:81'
- '443:443'
volumes:
- ./data:/data
- ./letsencrypt:/etc/letsencrypt
```

```
docker-compose up -d
```

Add SSL for NGINX

Make a private (Self Signed) SSL certificate

See: https://github.com/ChristianLempa/cheat-sheets/blob/main/tools/openssl.md

Original ssl-cert cheatsheet.: https://github.com/ChristianLempa/cheat-sheets/blob/0d1d66525cd125ec274a8d18702618ca758af3a7/misc/ssl-certs.md

Make a private CA (Certificate authority) used as root for certificates.

openssl genrsa -out ca-key.pem 4096

openssl req -new -x509 -sha256 -days 7000 -key ca-key.pem -out ca.pem

```
openssl x509 -in ca.pem -text
```

Create local certificates

Create RSA key

```
openssl genrsa -out cert-key-proxyai.pem 4096
```

Create a Certificate Signing Request (CSR), CN can be anything

```
openssl req -new -sha256 -subj "/CN=piai" -key cert-key-proxyai.pem -out  cert-proxyai.csr
```

Create a `extfile` with all the alternative names

```
echo "subjectAltName=DNS:proxyai.local" >> proxyai-extfile.cnf
```

Make the certificate

```
openssl x509 -req -sha256 -days 7000 -in cert-proxyai.csr -CA ca.pem -CAkey ca-key.pem
-out cert-proxyai.pem -extfile proxyai-extfile.cnf -Cacreateserial
```

Final NGINX and Client Setup

Veiw Certificate

```
openssl x509 -in cert-proxyai.pem -text
```

Verify certificate

```
openssl verify -CAfile ca.pem -verbose cert-proxyai.pem
```

Install CA In linux

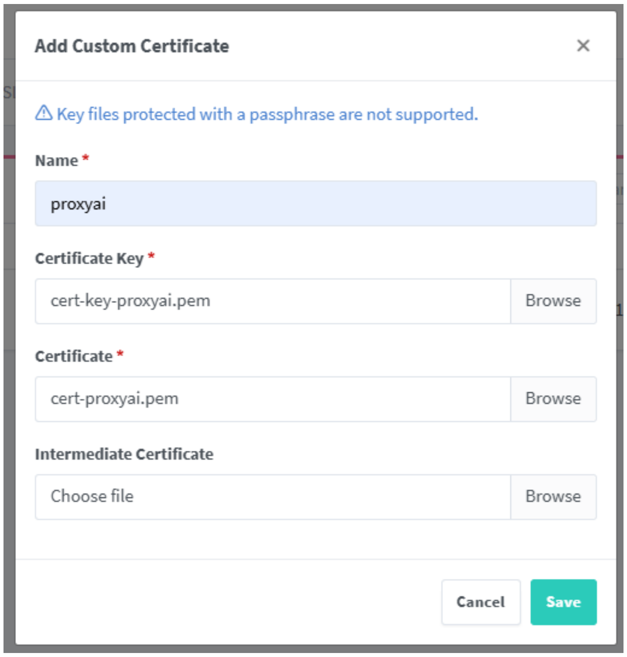
```
sudo cp ca.pem /usr/local/share/ca-certificates/ca.crt
```

```
sudo update-ca-certificates
```

On windows add CA (Or you get invalid cert message in browser)

```
certutil.exe -addstore root ca.pem
```

Add certificate as custom ssl cert in nginx proxy manager



Add Custom Certificate

⚠ Key files protected with a passphrase are not supported.

Name *

proxyai

Certificate Key *

cert-key-proxyai.pem

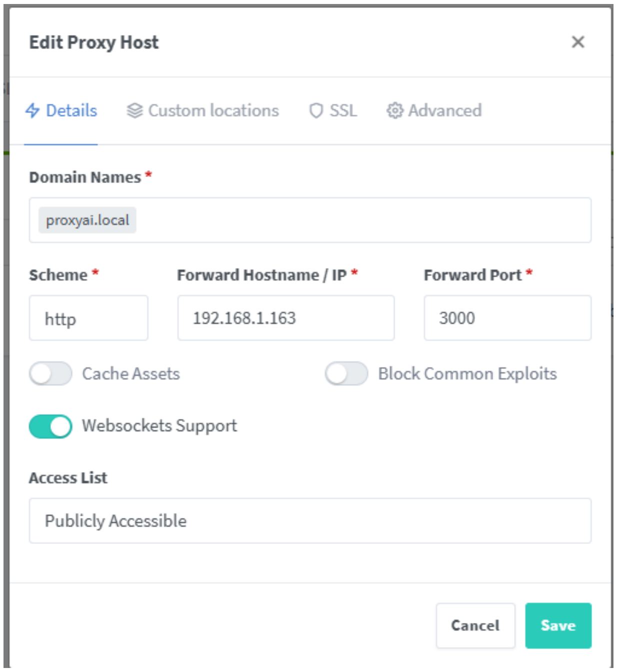
Certificate *

cert-proxyai.pem

Intermediate Certificate

Choose file

And update host (Note websocket support needed for open-webui)

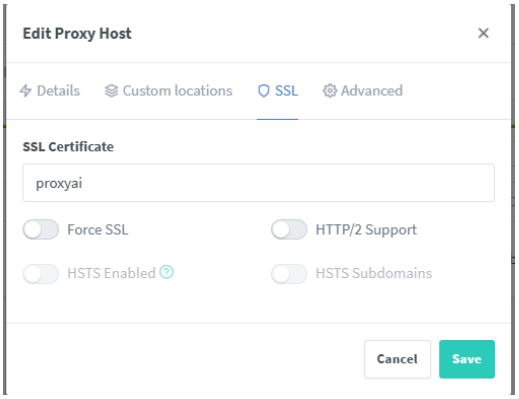


Domain Names *
proxyai.local

Scheme *	Forward Hostname / IP *	Forward Port *
http	192.168.1.163	3000

○ Cache Assets
○ Block Common Exploits
● Websockets Support

Access List
Publicly Accessible

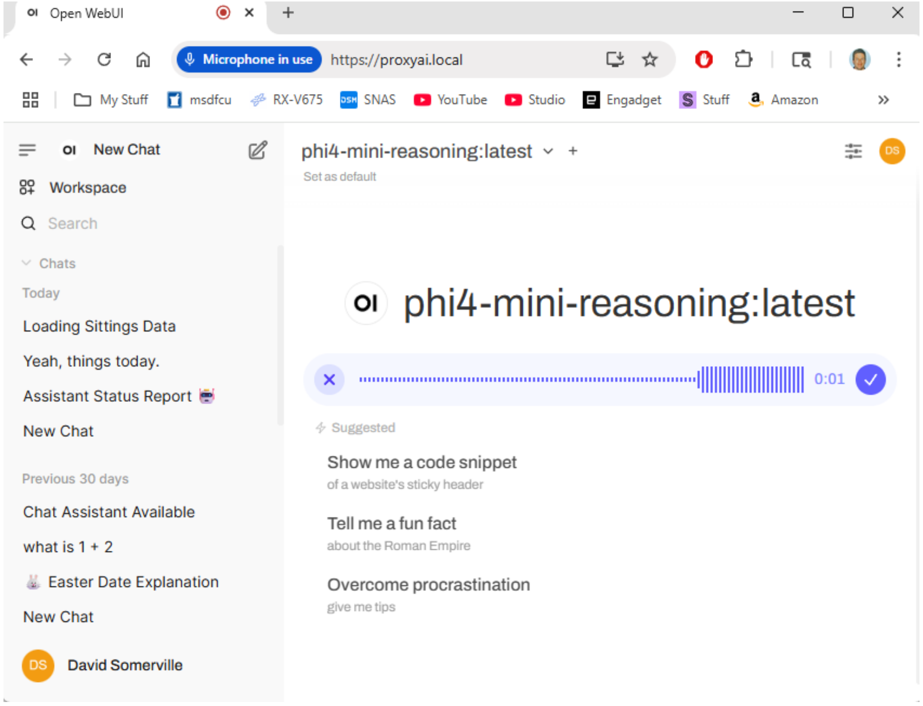


SSL Certificate
proxyai

○ Force SSL
○ HTTP/2 Support
○ HSTS Enabled
○ HSTS Subdomains

SSL will work to the proxyai.local site (Then you can use the voice interface via your local microphone)

https://proxyai.local/


Open WebUI
Microphone in use
https://proxyai.local
My Stuff
msdfcu
RX-V675
SNAS
YouTube
Studio
Engadget
Stuff
Amazon
New Chat
Workspace
Search
Chats
Today
Loading Sittings Data
Yeah, things today.
Assistant Status Report
New Chat
Previous 30 days
Chat Assistant Available
what is 1 + 2
Easter Date Explanation
New Chat
David Somerville
DS
phi4-mini-reasoning:latest
Set as default
phi4-mini-reasoning:latest
0:01
Suggested
Show me a code snippet
of a website's sticky header
Tell me a fun fact
about the Roman Empire
Overcome procrastination
give me tips