### Whatsdown

Whatsdown is a lightweight, LAN-based CLI messaging app built with Python. With Whatsdown, you can easily create or join chatrooms on your local network. It uses Python's standard libraries along with prompt\_toolkit for a smooth, non-interruptive user interface.

### **Features**

- Create or Join Chatrooms: Choose to either host a chatroom or join an existing one.
- LAN Networking: Connect with a partner on the same local network.
- · Asynchronous Messaging: Enjoy uninterrupted typing while incoming messages are handled seamlessly.
- Clean CLI Interface: Uses prompt\_toolkit to ensure incoming messages do not interfere with your inputs.

# Requirements

Whatsdown is built with Python and requires the following libraries:

- socket
- threading
- time
- prompt\_toolkit

## Installation via Package Managers

Depending on your operating system, you can install python and prompt\_toolkit using your system's package manager:

• Debian/Ubuntu:

```
sudo apt update -y && apt install python3 python3-prompt_toolkit
```

• Arch Linux (Pacman):

```
SHELL sudo pacman -S python-prompt_toolkit
```

• Fedora (Python is already installed):

```
SHELL sudo dnf install python3-prompt_toolkit
```

If your distribution doesn't support these packages directly, you can always install prompt\_toolkit via pip:

```
pip install prompt_toolkit
```

### **How It Works**

#### 1. Room Selection:

When you start Whatsdown, you'll be prompted with the following message to choose whether to create a chatroom or join one:

do you want:

- 1. Create chatroom.
- 2. Join to chatroom.

Enter a valid option:

This organizes the port configuration for sending and receiving messages.

#### 2. Enter Partner IP:

Next, you will be prompted to enter your partner's IP address (must be within the same LAN):

Enter your partner IP:

#### 3. Enter Partner Port:

The app will then ask for a port number, with a force to choose one between 49152 and 65535:

Enter your partner PORT (choose between 49152 and 65535):

### 4. Establish Connection:

After entering the details, Whatsdown waits for a connection. Once your partner connects, the chat session starts!

## **Usage**

Simply clone and run the Whatsdown Python script. The app will guide you through creating or joining a chatroom with clear prompts in your terminal.

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```
git clone https://github.com/ex-jandal/whatsdown.git ~/whatsdown
cd ~/whatsdown
python main.py
```

## **Troubleshooting**

### Connection Issues:

- Verify that both parties are on the same LAN.
- Ensure the IP address and port number are correct and not in use by another service.
- o Check firewall settings that might be blocking the connection.

#### Port Selection:

If you experience issues related to port binding, remember to choose a port between 49152 and 65535, which are typically available for user applications.

## **FAQ**

### Q: Do I need to install any additional software besides Python?

A: No, Whatsdown only requires Python and the listed libraries. For prompt\_toolkit, you can use your system's package manager or pip.

### Q: Can I use Whatsdown over the internet?

A: Whatsdown is designed for LAN usage. For internet usage, you would need to configure port forwarding and take additional security measures.

### Q: What happens if my partner disconnects?

A: The app will print a alert and close your partner socket if you partner sent you an empty message. if you partner interrupt or close the app, the app will show you an error message. You can restart the app and try reconnecting again if you or your partner do it by mistake.

Enjoy chatting on your LAN with Whatsdown! If you encounter any issues or have further questions, feel free to consult this README for guidance.

Done With | by Sultan Majed

## FlowChart





