

# macOS Website Blocker with pf and Python

This guide walks you through manually blocking websites with `pf.conf`, then transitioning to using the Python-based `main.py`.

## ✨ Prerequisites

- macOS (tested on macOS 12+)
- Root access (`sudo`)
- Python 3
- Internet connection for DNS resolution

## Step 1: Add ⚠️ Additional Permissions Setup

### 1. Open terminal and type:

```
sudo bash -c 'touch /private/etc/pf.anchors/  
org.user.block.out /etc/pf.whitelist /etc/  
pf.blocklist /etc/pf.blocked_domains /etc/  
pf.whitelist_domains && chmod 600 /private/etc/  
pf.anchors/org.user.block.out /etc/pf.whitelist /etc/  
pf.blocklist /etc/pf.blocked_domains /etc/  
pf.whitelist_domains'
```

### 2. Enable the firewall:

```
sudo pfctl -f /etc/pf.conf  
sudo pfctl -e
```

## Step 2: Install `blocker.zip`

### 1. Download or copy the `blocker.zip` script to a safe directory:

```
mkdir -p ~/scripts  
cd ~/scripts  
upzip blocker.zip ./blocker
```

### 2. Upzip the contents of `blocker.zip` go to terminal and paste it.

```
upzip blocker.zip -d ./blocker  
cd ./blocker
```

### 3. Make the script executable:

```
chmod +x main.py
```

## Step 3: Run the Script

Use root privileges to start the menu-based blocker:

```
sudo python3 ~/scripts/blocker/main.py
```

## Script Menu Options

1. **Block a domain**  
Enter a domain like `example.com` to block it.
2. **Unblock a domain**  
Choose a domain from the list to remove it.
3. **List blocked domains**  
See all currently blocked entries.
4. **Exit**  
Close the script.

## How It Works

- Resolves the domain name to one or more IP addresses.
- Stores those IPs in `/etc/pf.blocklist`.
- Applies rules using `pfctl`.
- Keeps a persistent record of blocked domains in `/etc/pf.blocked_domains`.

## Updating Firewall Rules

After any change via `blocker.py`, the script automatically:

```
sudo pfctl -f /etc/pf.conf
```

So no need to manually reload unless you edit `pf.conf` directly.

## Uninstall / Reset Instructions

1. **Remove rules from `/etc/pf.conf`**

```
sudo nano /etc/pf.conf
```

2. **Delete the data files:**

```
sudo bash -c 'rm /private/etc/pf.anchors/org.user.block.out /  
etc/pf.whitelist /etc/pf.blocklist /etc/  
pf.blocked_domains /etc/pf.whitelist_domains'
```

### 3. Reload the firewall:

```
sudo pfctl -f /etc/pf.conf
```

### 4. (Optional) Delete the script:

```
rm -rf ~/scripts/blocker
```