HOMELAB CLUB: PI-HOLE

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PI-HOLE

A Demo on how to get a pi-hole set up and some basic commands

INSTALLING PI-HOLE

The pi-hole packagers have a one-line command that can be used to install a pi-hole on a machine

```
curl -sSL https://install.pi-hole.net | sudo bash
```

CONFIGURATION

The install script that runs will asl if you want custom configurations. We are going to stick to the defaults here.

For this demo, we are not going to worry about static IPs, so you can disregard the warning it gives you.

STARTING COMMANDS

Before we do anything, we should verify the
installation by checking pi-hole's status

```
sudo pihole status
```

If your installation isn't working as expected you can
rerun the install script or run

```
sudo pihole repair
```

PASSWORDS

Now that we know pi-hole is working properly, let's change the password it gave us.

```
sudo pihole setpassword
```

or

```
sudo pihole setpassword <your_password>
```

Our pi-hole should now be set up, but it's not currently in use.

Let's fix that.

LISTING CONNECTIONS

```
nmcli conn show
```

SETTING DNS

```
nmcli conn mod "<connection_name>" ipv4.ignore-auto-dns yes
nmcli conn mod "<connection_name>" ipv4.dns "127.0.0.1"
```

APPLYING CHANGES

```
nmcli conn down "<connection_name>"
nmcli conn up "<connection_name>"
```

TESTING

Now, let's test if our pi-hole is working

In a terminal,

```
sudo pihole tail
```

Now, open up a web browser and visit a website

ADDING MORE

Pi-hole is nice, but the default block list it comes with doesn't block everything.

So, let's tell pi-hole to block more sites.

```
sudo pihole deny <domain_1> <domain_2> <domain_3> ...
```

For testing purposes, try blocking "suddenlysixam.club"

REVERTING CHANGES

If you ever block a domain you didn't mean to, you can always remove it from the deny list

```
sudo pihole deny remove <domain_1> ...
```

Let's allow "suddenlysixam.club" again

REGEX BLOCKING

You can also use a Regex to block any domain that matches.

```
sudo pihole regex ".*\.doubleclick\.net"
```

TESTING (AGAIN)

Try visiting "https://fuzzthepiguy.tech/adtest/" after blocking "doubleclick.net".

You should not see any ads.

some extended capabilities.

You can access it at "http://pi.hole:80/admin", or directly at "http://<pi_hole's ip>:80/admin"

BLOCK LISTS

One of the things you can do from the web interface is add block lists.

In the sidebar, navigate to Group Management and select Lists

Now try adding the list "https://

raw.githubusercontent.com/StevenBlack/hosts/master/hosts"

You should now be able to block a lot more ads.