1. Hardware Requirements:

- A PC with at least 2GB of free space and 512MB RAM
    - Example Hardware:
        - Raspberry-pi-four-ModelB Kit
    - Or:
        - Raspberry-pi-zero-2
- An external drive/SD card for devices software.
    - Example Hardware:
        - A micro SD Card
        - And probably an adapter.
- An ethernet cable:
    - Example Hardware:
        - Cat-Cable
    - Or:
        - Say you live in an apartment complex with “amenities” such as a “gym”, or a “tech center”. Either of these are bound to have “free wifi” or some poorly maintained botnet of a network with something at the very least connected to a router that is very likely in an unsecured cabinet. Take it, because with rent being $2000 you’ve already paid for it. Hell, maybe even take the router so long as it’s not one of those floozy two in one modem-routers. Leave the modem. If you can’t tell the difference, use google or pay the $6 because liability you see, we have none of it.

- Wow, potentially $31 for your own DNS server? **WHAT A DEAL!**
- Well, you can get pretty crazy with what you plan to install and run piHole on, but we recommend salvaging the random electronics you cant justify tossing in the trash, despite the begging to do so by your significant other. This guide wont help you block their incorrect complaining, but it will help block out some of the junk congesting networks like yours. All over the world.

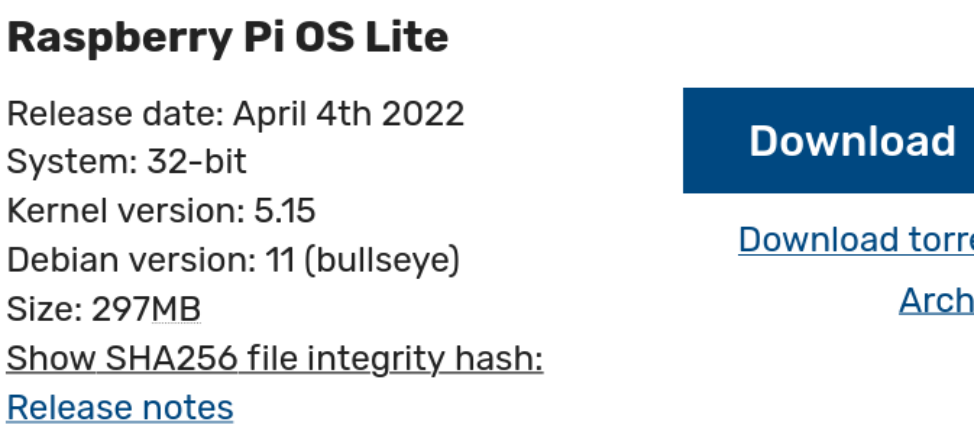
2. Bring your device to life with an operating system:

We will be installing the operating system that your DNS sinkhole will be running on via the micro SD card.

A. If you're installing piHole via a raspberry pi, official documentation and imaging software are provided by the Raspberry Pi Foundation and a nifty video tutorial can be found here.

- If you're installing on another device, recommended/compatible and free software include rufus, or etcher.

- There are variants of compatible operating systems, but unless you're an advanced user we recommend sticking with the latest Raspbian Stretch Lite:

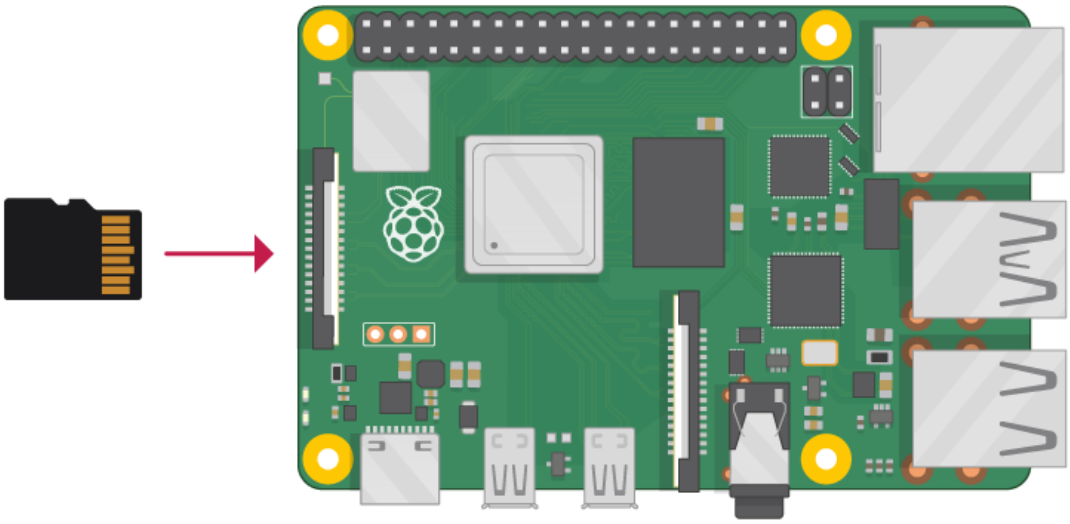


as it has the widest range of compatibility with the many routers that exist.

B. Once we've managed to write some combination of files to our device, we can plug in our SD card or what have you and begin the scary part of this process:
    - Enable SSH access.
    - Acronyms are scary, but this one will be what is used to login to and make any changes such as the initial install and ideally future updating of our PiHole software.
        - Open any of notepad or your standard text editing software.
            - Save your newly opened, completely blank document as "**ssh**" without a file extension!
                - **Windows users, save your file as "ssh" and choose the option to save as "all files" AND NOT .txt or any other extension shenanigan tomfoolery.
            - Where do we save this you ask? Find your micro SD card in your OS's files and save in the "root" directory, or initial folder/direcotry that contains files titled things like kernel.img and start.elf.
            - // replace the above with screenshot
            -

3. Eject that micro SD card (safely) and plug it into the device you will be using to host the piHole software on:

- **IE:**



- **OR**: (god help you)

4. Login to piHole via SSH:

- **Windows users:**
  - Use putty.

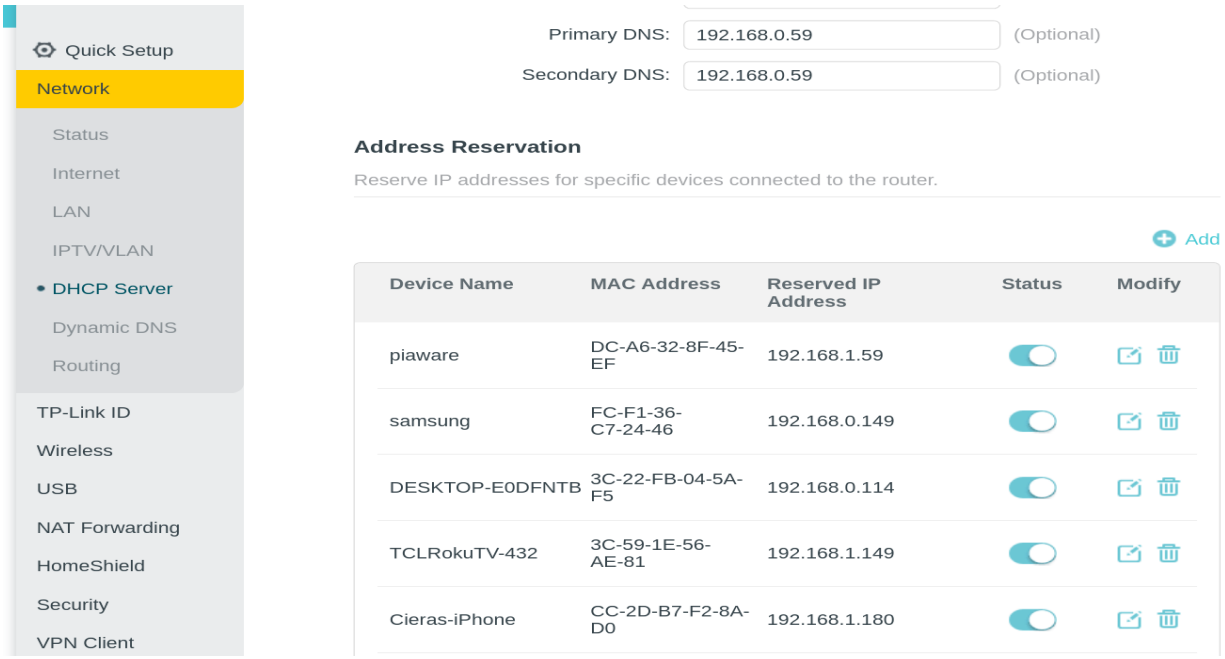
- **Other OS users:**
    - Whatever SSH client you feel most comfortable with

- **What are my login credentials???**
    - Depending on your routers pre-existing setup the IP address of the server you will be logging into may vary.
    - With that said, first find your routers gateway IP and login.
        - If you have no idea what I'm talking about, try typing into any web browsers url:
            " 192.168.0.1 "
            - If a login prompt appears and this is the first you're seeing of it…
                - For user, try: " user "
                - For password, try " password"

              Or:
                - For user, try: " admin "
                - For password, try " admin"
            - If you successfully login via either of the above, immediately find your router's documentation and change these settings before proceeding you ignorant, silly goose.

    - Once logged in find your routers dhcp client list settings:

IE:



And search for pi related device names, once found, following your router's documentation, assign to your new pi-device a static IP. This can be the current IP, or any so long as it falls in your router's designated subnet range.

** see link under login credentials above for more on subnet values

- The default password will be : pi
- The default username will be: raspberry
    - Change these during configuration step below:

5.Configure Pihole Install:

6. Set Pihole as DNS Server in Router Settings: