Exercise 39.1 Static Configuration of a Network Interface

Note: you may have to use a different network interface name than `eth0`. You can most easily do this exercise with **nmtui** or your system's graphical interface. We will present a command line solution, but beware details may not exactly fit your distribution flavor or fashion.

1. Show your current IP address, default route and **DNS** settings for `eth0`. Keep a copy of them for resetting later.
2. Bring down `eth0` and reconfigure to use a static address instead of **DCHP**, using the information you just recorded.
3. Bring the interface back up, and configure the nameserver resolver with the information that you noted before. Verify your hostname and then **ping** it.
4. Make sure your configuration works after a reboot.

You will probably want to restore your configuration when you are done.

Solution 39.1

1. ```
   $ ip addr show eth0
   $ ip route
   $ cp /etc/resolv.conf resolv.conf.keep

   $ ifconfig eno1
   $ route -n
   $ cp /etc/resolv.conf resolv.conf.keep
   ```

2. ```
   $ sudo ip link set eth0 down
   ```

   or

   ```
   $ sudo ifconfig eth0 down
   ```

   Make sure the following is in `/etc/sysconfig/network-scripts/ifcfg-eth0` on **Red Hat**-based systems:

   ```
   DEVICE=eth0
   BOOTPROTO=static
   ONBOOT=yes
   IPADDR=noted from step 1
   NETMASK=noted from step 1
   GATEWAY=noted from step 1
   ```

   On **SUSE**-based systems edit the file in `/etc/sysconfig/network` in the same way, and on **Debian**-based systems edit `/etc/networking/interfaces` to include:

   ```
   iface eth0 inet static
        address noted from step 1
        netmask noted from step 1
        gateway noted from step 1
   ```

3. ```
   $ sudo ip link set eth0 up
   ```

   or

   ```
   $ sudo ifconfig eth0 up

   $ sudo cp resolv.conf.keep /etc/resolv.conf
   $ cat /etc/sysconfig/network
   $ cat /etc/hosts
   $ ping yourhostname
   ```

4. ```
   $ sudo reboot
   $ ping hostname
   ```

