SSH, IPs, Upgrading IOS, Oh My!

1. Old Stuff:
   - Delete your old VLAN database:
     - `delete flash:/vlan.dat` on your 3750
     - `reload` your 3750.
   - Verify your switch interfaces are: `FasthEthernet 1/0/x`
     - If not run this to renumber them: `switch X renumber 1`
     - (replace X with the first number of your interfaces).

2. Enable SSH on all your devices (pages 180-181).
   - Create a key of 1024 or larger.
   - Limit to SSH v2 only
   - If you can’t create a key (crypto command not avail?) Then upgrade your IOS first as you have a
     version that doesn’t support it. The upgrade will.

3. Give them all a public IP address in your assigned range (`int F0/0` on your 2800s and `int vlan1` on
   3750). layer 3 config helps
   - Set the `switchport mode access` on the ports going to your Uplink and 2800s. This will get rid of
     CDP native vlan mismatch errors.
   - Enable `ip routing` on your switch
   - Use `ip route 0.0.0.0 0.0.0.0 <default_gateway_ip>` for default gateways

4. Restrict login via SSH to local users only (pages 180-181).
   - make sure you can login via SSH from the Internets. The Raritan won’t be around forever!!

5. Upgrade the system IOS on all of your equipment.
   - The tftp server is at [204.17.177.14].
   - Copy the verify MD5 image text after its copied (see pass off below) to your text file.
   - Check your flash before you upgrade to see if you have enough available room.. on 3750 you
     probably have to remove the old. 2800 has plenty of space for 3+ firmwares.
   - If you have an old directory you want to delete use this syntax: `delete /r /f flash:/<dir name>` as
     that will recursively forcefully delete the directory
   - Note that if you check the output of `dir flash:` after you do the upgrade and there is ANYTHING
     else in flash memory, you will probably want to specifically tell the IOS where your bootable IOS
     image is like this: `2800(config)#boot system flash:/c2800nm-adventerprisek9-mz.151-4.M10.bin`
   - If you have your 2800s running M10, downgrade to M8, if you’re not running M10, then upgrade to
     M10.
   - Filenames:
     - c2800nm-adventerprisek9-mz.151-4.M8.bin (MD5: b50f8b4bd547d1c170ce0f70891d6843)
     - c2800nm-adventerprisek9-mz.151-4.M10.bin (MD5: 009ab557b1f40571bebc763a4e7f1dda)
     - c3750-ipservicesk9-mz.122-55.SE11.bin (MD5: c7d5b7edae840dbc7f39517dba5230f5)

To pass off
   - Upload a copy of show version from both your 2800s and 3750 before AND after your IOS upgrade/reboot
     - demonstrate that you can ping your gateway, and other routers
     - Verify your firmware image BEFORE rebooting to make sure the MD5 matches. Copy the final line of
       verify output to the file for successful points.
     - include a show running-config of your three devices
     - include the output from `show ip ssh` from all three devices to prove you got the SSH portion
       correct
     - output of `dir flash:` of all three
- Upload the above before the due date/time in Canvas
  - Files should be saved as plain text .txt files for convenience and easy reading on my part