COMP3500 – Frequently Asked Questions
Project 1 - Using the Linux Terminal

1. What should we include in our project report? Should it be a description of the processes to complete each task, or should it simply be a copy of the commands and response from the terminal?

   Answer: There is no formal format of the report. You can either use the pipe or the *script* command of Linux to show the process of completing all the specified tasks.

   Instructions on how to use the *script* command can be found here: http://www-users.cs.umn.edu/~gini/1901-07s/files/script.html

   If you encounter any problem and solve it, please also document the problem and its solution.

2. Can I use SecureCRT rather than Putty to remotely access a Linux machine?

   Answer: Yes, you may choose to use SecureCRT, which is free to Auburn students. You can download SecureCRT here: https://auburn.service-now.com/it?id=kb_article&sys_id=5bfa6107dbc45b00965cf9b9af961930#arcGIS-content

3. The version of CentOS linked in the project description PDF, CentOS 6.4, is deprecated, and no longer hosted at the mirror the link directs to (though it is hosted on CentOS' vault page). Do we need to use CentOS 6.4 specifically, or can we use a more recent version?

   Answer: If you would like to install CentOS 7.0 - the current version, you are allowed to do so. You should be able to download CentOS 7.0 from CentOS official website.

4. How do we wipe out the existing one on our computer in Shelby 2129 if we can't get past the login and password?

   Answer: You may try a fresh installation. Check the detailed instructions with screenshots can be found here: http://www.tecmint.com/centos-6-4-installation-guide-with-screenshots/

5. Where do we find out the PC that was assigned to us? Is it the number on the CD you distributed to us?

Answer: If you need to access one computer located in the OS lab (i.e., Shelby 2129), please stop by Dr. Qin's office during his office hours (MWF 1:00-2:00 p.m.) to acquire PC assignment information.

6. Should I just install centOS on one computer in the lab or should we individually install it on our own computers too?

   Answer: You only need to choose one option to carry out this project.

7. I encountered an error when I run the following command in centOS. What should I do?

```
# /sbin/hdparm –I /dev/hda
```

   Answer: If the above command doesn't work. There might be two problems. First, the command doesn't exist in the folder of `sbin`. In this case, you must install `hdparm`. Second, the driver labeled as `/dev/had` had doesn't exist in your Linux. Then, you can simply report this error and indicate that the driver has not been created yet.

8. How do we get the file off the computer and into Canvas?

   Answer: There are three candidate solutions.
   (1) You may use the `sftp` command to transfer files from your lab PC into the engineering's tux machines. For example, you can start using this command on your lab PC's terminal as, assuming your engineering user name is `xzq0001`:

```
#sftp xzq0001@scp.eng.auburn.edu
```

   Then, you can easily access your transferred files on your engineering machines. For more information on how to use sftp, please refer to the "Transferring Files with SFTP" section of this webpage:
   https://www.digitalocean.com/community/tutorials/how-to-use-sftp-to-securely-transfer-files-with-a-remote-server

   (2) You mount a flash drive, to which you copy the tarred archive. Then, you need unmount the flash drive. You then plug the flash drive into a laptop or another computer to upload the report to Canvas. Please refer to the following instructions on how to use `mount` and `unmount` commands in Linux:
   http://www.thegeekstuff.com/2013/01/mount-umount-examples/

   (3) You can add a desktop environment on your minimal CentOS. You may use the following command to add Gnome/GUI to your minimal CentOS install:

```
yum groupinstall basic-desktop desktop-platform x11 fonts
```

   A long name version is given below:

```
yum groupinstall "Desktop" "Desktop Platform" "X Window System"
"Fonts"
```

9. When using the commands from part 2.1 such as
   `yum -y install ...`
   Near the end of installation for all the packages it gives a message saying Error downloading packages: no more mirrors to try. Is this an issue or should it be ignored?

   Answer: This issue went away after restarting the computer.

10. Step 2.2. When I tried the following two commands, it showed that the devices could not be found. Has anyone else encountered this problem? I made sure I ran the command as root user but it still didn't work. What am I missing here?

```
# /sbin/ethtool eth0
Settings for eth0: Cannot get device settings: No such device
Cannot get wake-on-lan settings: No such device Cannot get
message level: No such device Cannot get link status: No such
device No data available

# /sbin/ifconfig eth0
eth0: error fetching interface information: Device not found
```

   Answer: eth0 is referring to a network card, which is managed by a program called "udev". Udev is responsible for the removal/addition of hardware. Udev is associating the conventional interface name (eth*) to it's unique MAC address. Those associations are stored in the folder **/etc/udev/rules.d/,** where you will find a file called "**xx_persistent-net.rules**" file. Note that "xx" is a random number.

   Udev use the "rules" (see sample below) to name the devices.

```
SUBSYSTEM=="net", DRIVERS=="?*",
ATTR{address}=="xx:xx:xx:xx:xx:xx", NAME="eth0"
```

   (the xx:xx:xx... is a MAC address)

   You can read your computer's MAC address using the following command:

```
sudo /sbin/ifconfig -a
```

   Write this MAC address in the above Udev rule corresponding to the conventional name that suites you (e.g., eth0). You may delete old rules and add new ones. After restarting your computer, the problem should be solved.

11. One fix for yum -y update error "cannot find a valid base URL". (Contributed by Jordan Johnson, Fall'17.)

    Answer: When using the newest centOS on virtual box, the `yum -y update` isn't working or any of the yum updates.

    If you navigate to this location after you have installed your ISO:
    `/etc/yum.repos.d/CentOS-Base.repo`

You will see that the `baseurl` field has `#` in front of it. Take that out to uncomment the `baseurl` that `yum` is looking for and it should start working then.

12. Looking at the rubric, 10 points are allocated for setup. Is there a deliverable we need to include for this step? Or are points given automatically by us completing the project? (Contributed by Jacob Justice, Fall'18.)

    Answer: If you successfully complete Tasks 1-4, you will automatically earn the 10 points for your setup.