

### Lab Assignment #3

Covers: Boot Loader, Permissions, Installation of software, Environment Variables, Command Line FTP, /etc/hosts

1. Create file called "index.html" on your desktop.

**cd**

**cd Desktop**

**pico index.html**

**<html><body> This is a lab assignment </body></html>**

2. Using sftp, copy the file to your public\_html directory under your home directory on tgiddens2. Check your web page using <http://tgiddens2.ba.ttu.edu/~yourid>

**sftp [myuserid@tgiddens2.ba.ttu.edu](mailto:myuserid@tgiddens2.ba.ttu.edu)**

**cd public\_html**

**lcd ~/Desktop**

**put index.html**

3. What is the difference between secure shell client and secure shell server? Explain the differences in the command used to run each, where they are installed, etc.

**Server: installation - apt-get install ssh**

**execute - /etc/init.d ssh start**

**purpose - allows remote users to connect**

**Client: installation - already installed**

**execute - ssh myserud @some.domain**

**purpose - allows a user to connect to a remote ssh server**

4. Where is the boot loader menu stored? Why did we modify it?

**/boot**

**we modified /boot/grub/menu.lst to fix the (hd0,0) device error for the flash drive**

5. How do you get the IP address of your Unix server?

**ifconfig**

6. What is a Protocol, Socket, Domain Name, Port, and URL and how do they relate?

**Given: <http://tgiddens2.ba.ttu.edu:80>**

**protocol: http**

**Domain name/host: tgiddens2.ba.ttu.edu**

**Port: 80**

**Socket: tgiddens2.ba.ttu.edu:80**

**url: <http://tgiddens2.ba.ttu.edu>**

7. How do you see what ports are “open”?  
**System – network tools**
8. What is the difference between “chmod 777 ./somedir” and “chmod –R 777 ./somedir”?  
**The –R changes the permissions “recursively” – all files/directories under somedir are modified**
9. What is the command to see the applications installed / not installed on the system?  
**aptitude**
10. What is the command to install secure shell?  
**apt-get install ssh**
11. What is the difference between the secure shell commands “ssh” and “sftp”?  
**both are secure shell clients**  
**ssh allows remote login**  
**sftp allows file transfer**
12. What is an environment variable?  
**a variable used by various functions of the Operating System**  
**example: \$PATH, \$EDITOR, \$USER**
13. Given a \$PATH=/bin:/usr/bin:/sbin – what directories are looked in to find a command entered at the command prompt?  
**/bin and /usr/bin and sbin**
14. What is the command to see which directory a command is being loaded from?  
**which somecommand**
15. Using the path on #13, if “ls” was located in all three directories, which directory would it be loaded from?  
**/bin**
16. Explain the use of the \$PATH environment variable when using the commands “ssh” and “./ssh”.  
**ssh: - the \$PATH environment variable is used to locate the command**  
**./ssh - the \$PATH environment variable is NOT used – command is found in current directory**
17. Install apache and start its daemon. (Look up how to do this.) Give commands.  
**apt-get install apache2**  
**/etc/init.d/apache2 start**
18. What port does apache run on? **80**
19. Where is the web page for apache? **/var/www/index.html**
20. How do you access apache on the local machine using a browser once it is running?  
**<http://localhost> or <http://127.0.0.1>**
21. What would be the /etc/hosts file entry to redirect <http://myfavoriteprofessor> to <http://tgiddens.ba.ttu.edu>?  
**ip address of tgiddens.ba.ttu.edu followed by myfavoriteprofessor**
22. What is the relationship of the “hosts” file to an external DNS server?  
**Domain names are looked up in the host file first. If not found, look in ext DNS server**
23. What files are located in /etc/init.d? Do all of these files ‘start up’ on reboot?  
**Possible startup daemons - no**
24. Why is it not a good idea to put the current directory in the path environment variable?

**Someone could write a harmful shell script in a “current” directory making it easy to execute it without knowing**

25. How do you add a user? What files are modified / added when you add a user?

**adduser someuser**

**/etc/passwd, /etc/shadow, /etc/group**

**/home/someuser is created and the files from /etc/skel are copied to it**

26. What happens to files in /etc/skel when adding a user?

**copied to the newly created home directory.**