

Linux Primer - Laboratory Exercise – Name: _____

This in-class laboratory is designed to be a basic Linux primer for the average Windows user. It is not intended to be an exhaustive survey of all the functionality contained in the Linux operating system. The focus is to guide you through a few basic networking tools and commands.

All of the commands should be executed on the departmental server “*satoshi.cis.uncw.edu*” – you have all been given accounts on that machine. Your username and password is your UNCW username and password.

1. To access the command line on *satoshi.cis.uncw.edu* you need to use a secure client, like Putty – a free telnet/ssh client. Use Google to help you find, download and install Putty on your local machine.

List two additional ssh clients that are available for Linux.

2. Login to *satoshi.cis.uncw.edu* with Putty. At the command line, type: **man uname** and learn about the **uname** command.

Use **uname** to print out the version number of Linux that is running on *satoshi*.

3. Type: **man ls** and see the options that are available for the **ls** (directory listing) command. Are there any folders and/or files in your directory?

Type: **pwd** and record here what your home directory location is –

4. Try out a few other Linux commands and for each one explain what they do.

ls -l

date

cal

uptime

whoami

man man

clear

ps -aux

df

touch (try: **touch YourName.txt** followed by **ls** command)

pwd

cp (try: **cp YourName.txt YourName2.txt** followed by **ls** command)

rm (try: **rm YourName2.txt** followed by **ls** command)

vi (try: **vi YourName.txt**)

This will start the vi editor and allow you to enter text into the file. Press **i** to go into insert mode – it will say insert at the bottom of the screen. Enter your full name three times and then press the ESC key. Press **ZZ** to save the text file and exit the vi editor (note, it is case sensitive and those are capital Z's).

more (try: **more YourName.txt**)

cat (try: **cat YourName.txt**)

grep (try: **grep lastname YourName.txt** - note: lastname is your last name)

5. Networking Related commands – explain what each one of these commands does.

dnsdomainname

host (try: **host www.uncw.edu** and **host www.google.com**)

nslookup (try: **nslookup www.uncw.edu** and **nslookup www.google.com**)

/sbin/ifconfig

Why did we have to use the complete location of the command?

dig (try: **dig www.uncw.edu** and **dig www.google.com**)

netstat (try: **netstat -e** and **netstat -r** and **netstat -a**)

/sbin/route

/sbin/arp (try: **/usr/sbin/arp -a**)

ping (try: **ping people.uncw.edu** and try: **ping www.google.com**)

Why can't we ping google.com or any other off-campus site?