**Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group Project#1**

**Computer Applications in Meteorology Due: Fri. Jan. 24, 2020**

**Linux Command Window**

1. Driver Initials:\_\_\_\_\_\_\_\_ Passenger Initials:\_\_\_\_\_\_\_\_
* Launch Xming {instructions to be given}
* Launch PuTTY Secure Shell {instructions to be given}
	+ logon to “blizzard.atms.unca.edu”
		- login:
		- password:
* […prompt]$ pwd
	+ note below the directory in which you are located after typing “pwd”
* Next use the cd command to change which directory you are in. Move up one level using […prompt]$ cd..
* […student]$ dir
* […student]$ ls –lt | more
	+ note that “|” is called “pipe” and it is the character above the “\” on the keyboard
	+ describe below the difference between typing “dir” and “ls –lt | more”
	+ ask a Linux “expert” what the “drwxrwxr-x” letters indicate when typing “ls –lt | more” and note below the answer
* […student]$ df
	+ note below the amount of available disk space on “/” and “/boot” in bytes
* […student]$ cd /var
* hit “Ctrl p” several times
	+ describe below what happens
* use the appropriate command to list the contents of directory “var”
	+ note below whether files or directories are the dominant content of directory “var”
	+ note below if “spool” is a file or directory and note its size
* […var ]$ find **.** –name games –print
	+ note below the full directory address[es] having a subdirectory named “games”

**Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group Project#1**

**Computer Applications in Meteorology Due: Fri. Jan. 24, 2020**

**Linux Command Window (continued)**

* […var ]$ man find
	+ describe below the **brief** (top line) manual page description of the command “find”
* change back to “/” and then change into directory “root” from directory “/”
	+ describe below what happens
1. Driver Initials:\_\_\_\_\_\_\_\_ Passenger Initials:\_\_\_\_\_\_\_\_
* Navigate to your group’s directory (under /home/atms261) and use the correct command of the possible options, “makd”, “mkd”, “maked”, “mkdir”, or “mdr” to make a directory named “linux”
	+ note below which command worked for making a directory
* change into directory “linux”
	+ [… linux]$ emacs test**.**file
	+ edit file “test**.**file” (via emacs) by typing the birth months of each team member on separate lines
	+ exit “emacs” edit session (being sure to save the changes in file “test**.**file”)
	+ note below the size of the file “test**.**file” in bytes
	+ note below the read/write permissions of “test**.**file”
	+ [… linux]$ chmod or test**.**file
	+ note below the read/write permissions of “test**.**file”
	+ describe below the effect of the “chmod or”command
* copy (“cp”? “copy”?) the following files “file1.dat”, “file2.dat”, and “program1.f” from /home/atms261/programs into your local “/home/atms261/GroupNN” directory
	+ note below the differences between files “file1.dat” and “file2.dat” by using the correct command of the possible options, “dff”, “fdf”, “diff”, or “fdiff”
	+ note below which command worked for noting the differences in the files

**Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group Project#1**

**Computer Applications in Meteorology Due: Fri. Jan. 24, 2020**

**Linux Command Window (continued)**

* [… linux]$ fgrep mustard **.**/\***.**dat
	+ write below what appears on the screen
	+ describe below the function of “fgrep” using the online manual command “man”
	+ edit file “file1.dat” to find where in the file the word “mustard” appears. Note below if “mustard” appears at the beginning, middle, or end of “file1.dat”
* note the contents of your newly-created subdirectory “linux” (/home/atms261/GroupNN/linux)
	+ list below the files or directories that you see
	+ [… linux]$ date > lookit
	+ note below what has been added to the contents of subdirectory “linux”
	+ describe below the contents (what’s inside) of file “lookit”
	+ describe below what the “date” command does
	+ describe below what the redirect (“>”) does
* make directory “newdir” as a subdirectory of “linux”
* copy “lookit” into new files “nlook1” and “nlook2” within directory “newdir”
	+ describe below the Linux command needed to copy a file into a new file (“cp”? “copy”?)

**Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group Project#1**

**Computer Applications in Meteorology Due: Fri. Jan. 24, 2020**

**Linux Command Window (continued)**

* Now make a new file in “newdir”
	+ […newdir]$ emacs new.file
	+ Edit the new file to say ‘printf “put any text you want here” ’ {without single quotes}
	+ Save the file
	+ […newdir]$ chmod +x new.file
	+ […newdir]$ ./ new.file
	+ what happened?
* remove directory “newdir” by using the correct command of the possible options, “rdir”, “rmdir”, “redir”, or “rmdr”
	+ note below which command is correct for removing directories
	+ did it work? If not, describe below why it didn’t work.
	+ Do what needs to be done to allow you to remove directory “newdir”, describe below what you had to do to be able to remove it
1. Driver Initials:\_\_\_\_\_\_\_\_ Passenger Initials:\_\_\_\_\_\_\_\_
* [… linux]$ gfortran program1.f –o prog1
	+ compiles “program1.f” and creates an executable file named “prog1”
	+ note below the read/write protect pattern of file “prog1”
* [… linux]$ chmod gox prog1
	+ note below the change in the read/write protect pattern of file “prog1” after typing the “chmod” command
	+ [… linux]$ **.**/prog1
	+ describe below what happened after typing in “**.**/prog1”
	+ note below the file type that has “x’s” in the read/write protect pattern

**Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group Project#1**

**Computer Applications in Meteorology Due: Fri. Jan. 24, 2020**

**Linux Command Window (continued)**

* Think of a way to find the local time from the Linux command window
	+ [… linux]$ at *future time* Jan 25

at> date > /home/atms261/GroupNN/linux/lookie & <enter>

at> <Ctrl-d>

where:

 “*future time*” is the time 2 minutes into the future (e.g. 2:34 pm)

 “<enter>” indicates that you hit the “Enter” key

 “<Ctrl-d>” indicates that you hit the “Ctrl” and “d” keys at the same time

* [… linux]$ atq
	+ describe below the result of typing command “atq”
* [… linux]$ history
	+ describe below the result of typing command “history”
* [… linux]$ clear
	+ describe below the result of typing command “clear”
* use the online manual command to describe below (briefly) the purpose of the “at” command
	+ after the “*future time*” has passed, describe below the new file that appears in directory “atms261” and its contents
* use the “at” command to run executable file “prog1” at a new future time and redirect the text output generated by “prog1” into file “prog.dat” in subdirectory “linux”
	+ note below the size of file “prog.dat” in bytes after the new future time has passed
* log off of Linux
	+ [… linux]$ exit {closes terminal session}
	+ close SSH window (click on “X” in the upper portion of the window)
* hand in answers and signatures/initials written on this hand-out

# Final deliverable for Group Project#1 must contain:

hand-written responses added to this document and signatures/initials of team members

# Next Class: **VIS5D !!!**