OSYS 1000 ASSIGNMENT 5

**UNIX**

**Due: Monday, Mar. 11, 2019 (in class)**

# Instructions

1. This assignment is in the form of a checklist that will be applied **to items you have completed** on the newly installed CentOS Virtual Machine and in its Terminal interface.
2. This assignment mostly involves creating an executable shell script in your CentOS terminal.
3. The items in the list should have been covered in the four preceding class videos:
   1. UNIX Basic Shell Scripting - Part 1
   2. UNIX Basic Shell Scripting - Part 2
   3. UNIX Basic Shell Scripting - Part 3
   4. UNIX Basic Shell Scripting - Part 4
   5. UNIX File System
   6. UNIX Processes
4. You may also want to check out the additional resources listed in the recent Weekly Agendas for more help if necessary.
5. On the day that the assignment is due you will demonstrate the completion of the tasks to the instructor in class and get the checklist completed/marked.
6. That’s it.

**Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| Item # | Item Description | Student has completed (Y/N)? |
| - | Log into CentOS. |  |
| - | Make sure you are in your home folder. |  |
| - | CREATE THE FOLLOWING SCRIPT FILE IN THE SUBFOLDER THAT IS ALREADY IN YOUR PATH. |  |
| 1. | Create a new ***executable script file*** called  **assign5\_mike.sh**. (Replace “mike” with your name). Have a comment at the top of the script file marking yourself as the author. | vim bin/assign5\_Cathy.sh |
| 2. | Separate the output of each task in the script with an output line of characters like “++++++++++++++++++++++++++++++++”. Store the output characters in a variable to make it easier to reprint. | sep = +++++++++++++++ |
| 3. | The script file will prompt the user to input the name of a file. | echo”enter file name”  Read file\_name |
| 4. | The script file will output each line of the file that the user entered with a line number message in front of each line (e.g. “Line1:”, “Line2:”, etc.) | n=1  while read line  do  echo”Line$n: $line”  ((n = $n+1))  done < $file\_name  echo $sep |
| 5. | The script will list the disk usage of the Linux directory that is the root of the file system (i.e. the rough equivalent of Windows C:\). | df -h /  echo $sep |
| 6. | The script will output a count of all files with “tty” in the filename in the Linux directory that holds files on system devices. | ls /dev | grep tty | wc -l  echo $sep |
| 7. | The script will output a count of all files/folders with “.conf” in their names in the Linux directory that holds most system config files | ls /etc | grep .conf | wc -l |
| 8. | The script will output the last ten lines of the “boot.log” log. HINT: This log file can be found in a subfolder of the Linux directory that holds data written during system operation (e.g. log or spools files). | sudo tail -n 10 /var/log/boot.log |
| 9. | The script will list all files in a Linux directory that holds basic commands and shells used by root and other users **using a full path**. | ls /bin |
| 10. | The script will list all files in a Linux directory that holds basic commands and utilities ONLY to be used by root **using a relative path from your home directory**. | ls ./../../sbin |
| 11. | The script will display the currently mounted file systems. | mount |
| 12. | The script will display the contents of the file that sets the file systems to mount on boot up **using a relative path from your home directory**. | cat ./../../etc/fstab |
| 13. | The script will output a count of all processes currently running on the system that have the string “sbin” in the path of the process executable. | ps -ef | grep sbin | wc -l |