

OLD DOMINION UNIVERSITY

CYSE 270 LINUX SYSTEM FOR CYBERSECURITY

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## Assignment #2 Working on Command Line

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John Wilson

01179411

Below is the snippet of a sample lab report.

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## TASK A USING SHELL FEATURES

### 1. Display your current directory

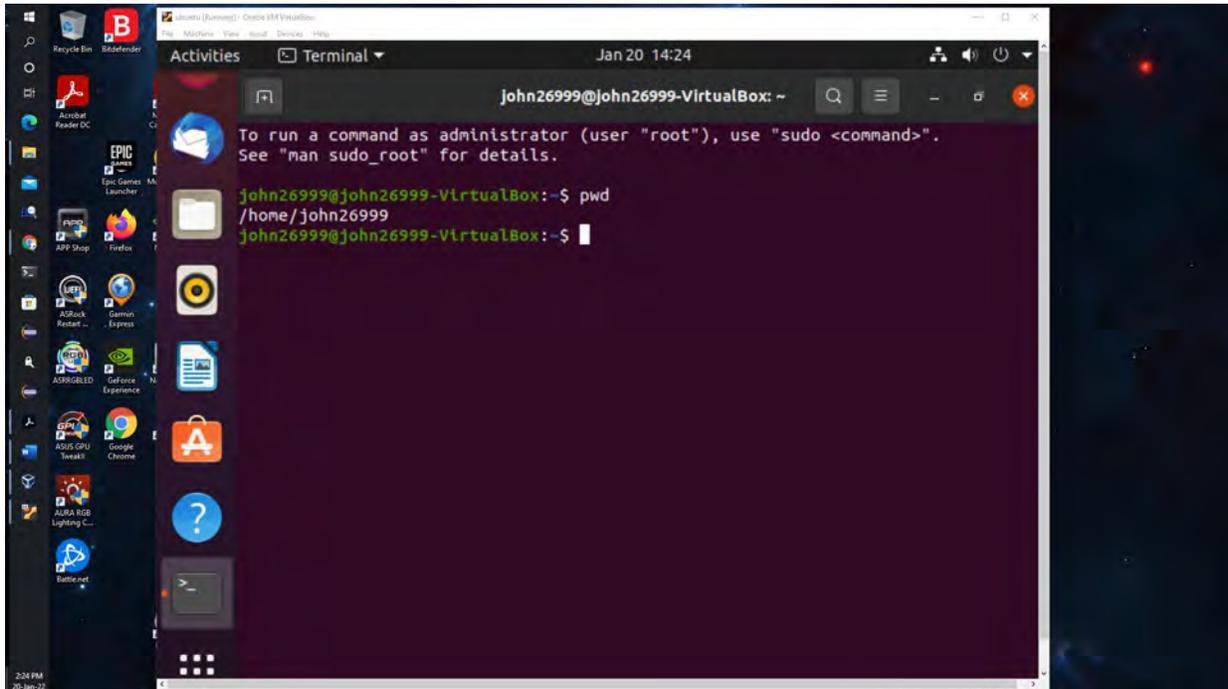


Figure 1 Screenshot of JWILS082 Computer screen for step 1

Above is the screen shot using the command `pwd` to show the current directory

2. Using an absolute pathname, switch to the /etc directory.

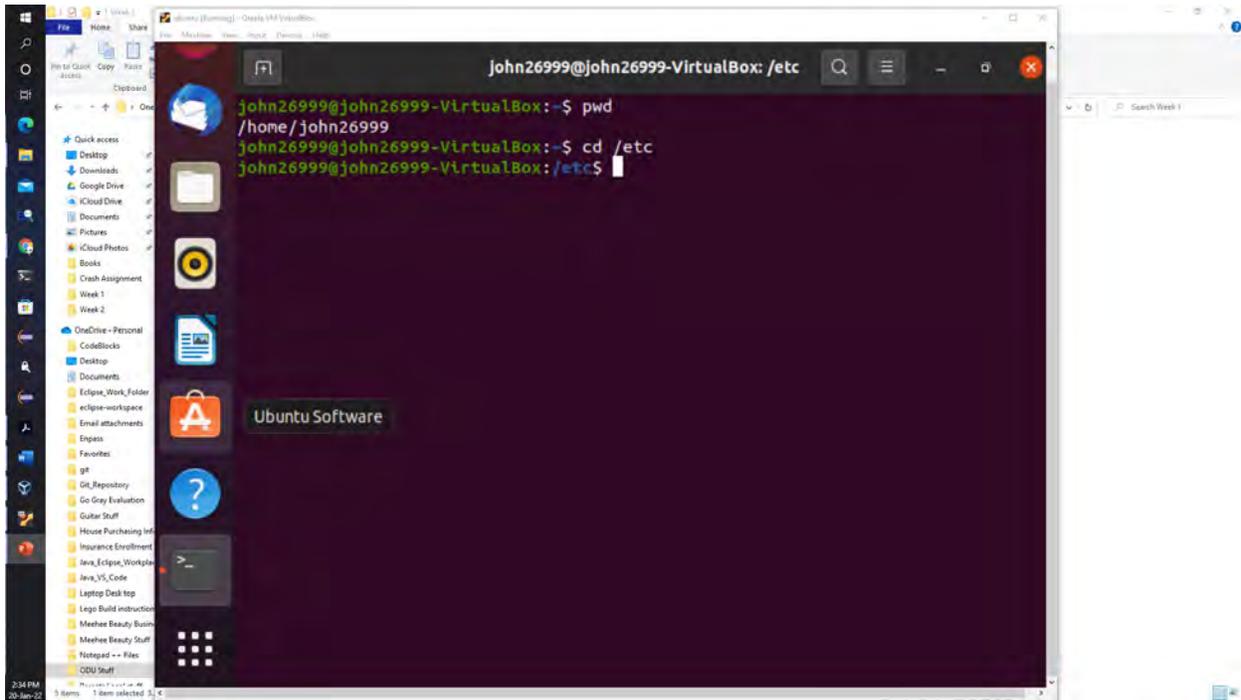


Figure 22 Screenshot of JWILS082 Computer screen for step 2

Above is the screen shot using an absolute path to switch and show the /etc directory. Absolute path always start with a slash (/).

3. Using a **relative** pathname, move to the `/etc/skel` directory.

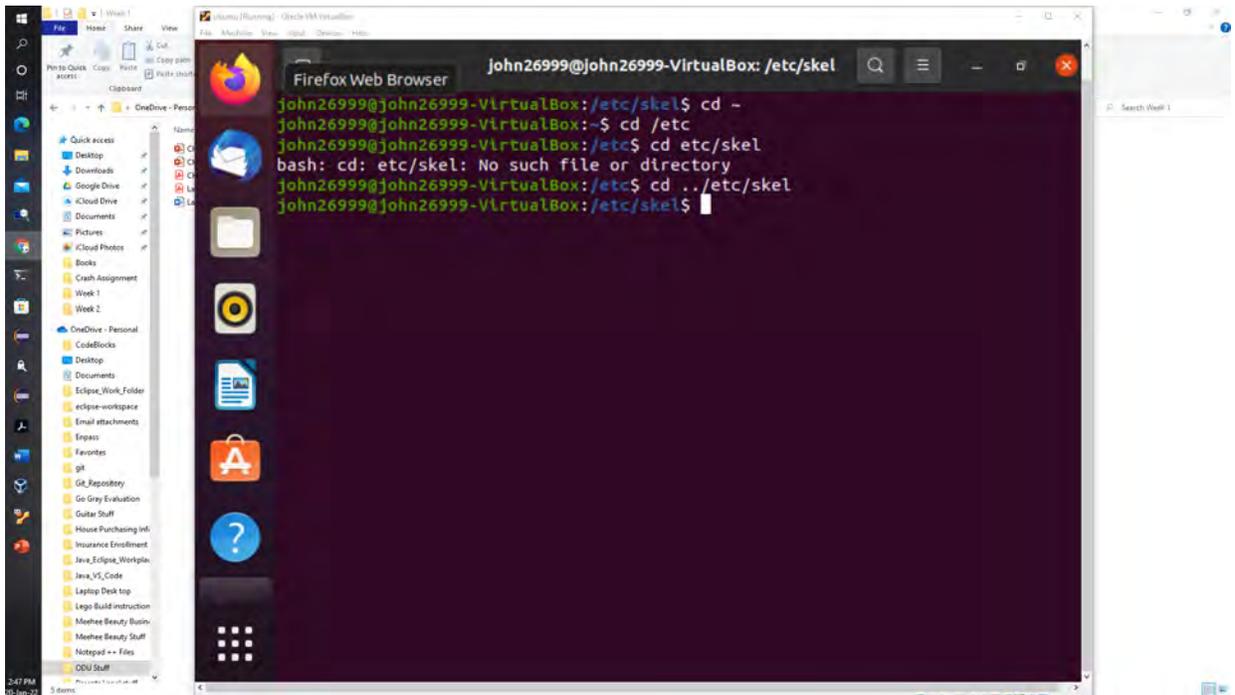


Figure 3 Screenshot of JWILS082 Computer screen for step 3

Above is the screen shot using a relative path to show the `etc/skel` directory. Relative path always starts with the current working directory.

4. Perform a “long display” listing of the files in the current directory.

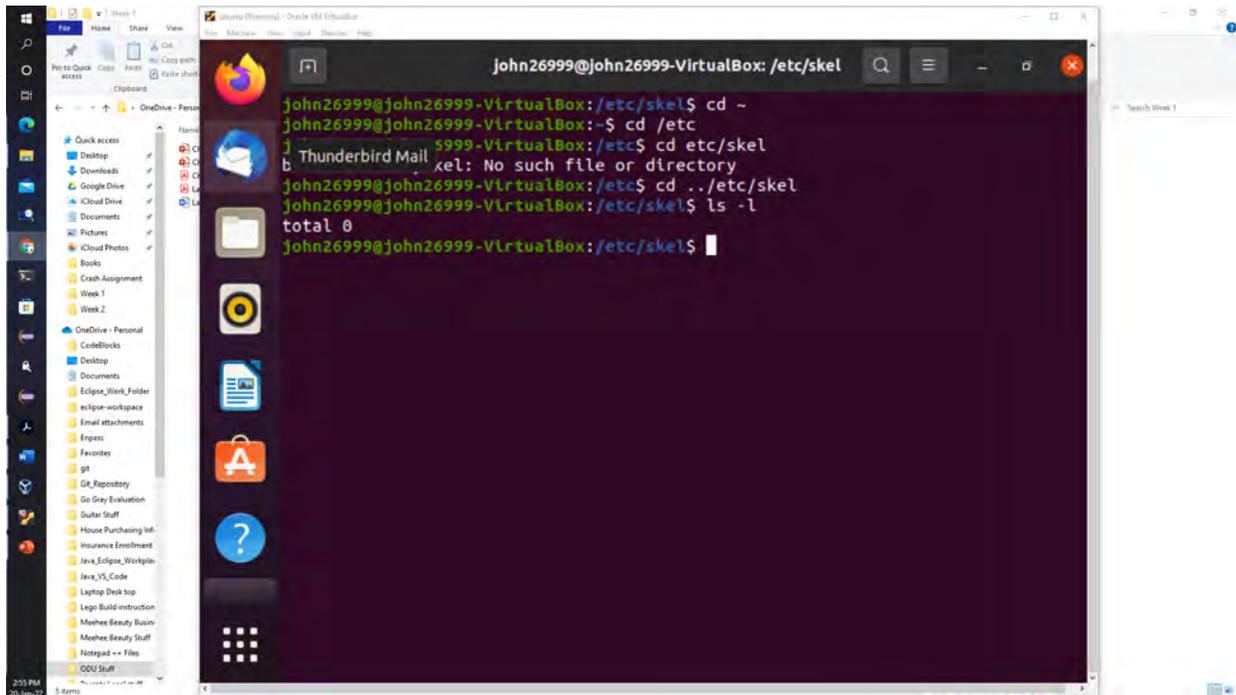


Figure 4 Screenshot of JWILS082 Computer screen for step 4

Above is the screen shot using the command `ls -l` to show a long display of the files in the current directory. As you can see there is nothing in the absolute file path `/etc/skel`

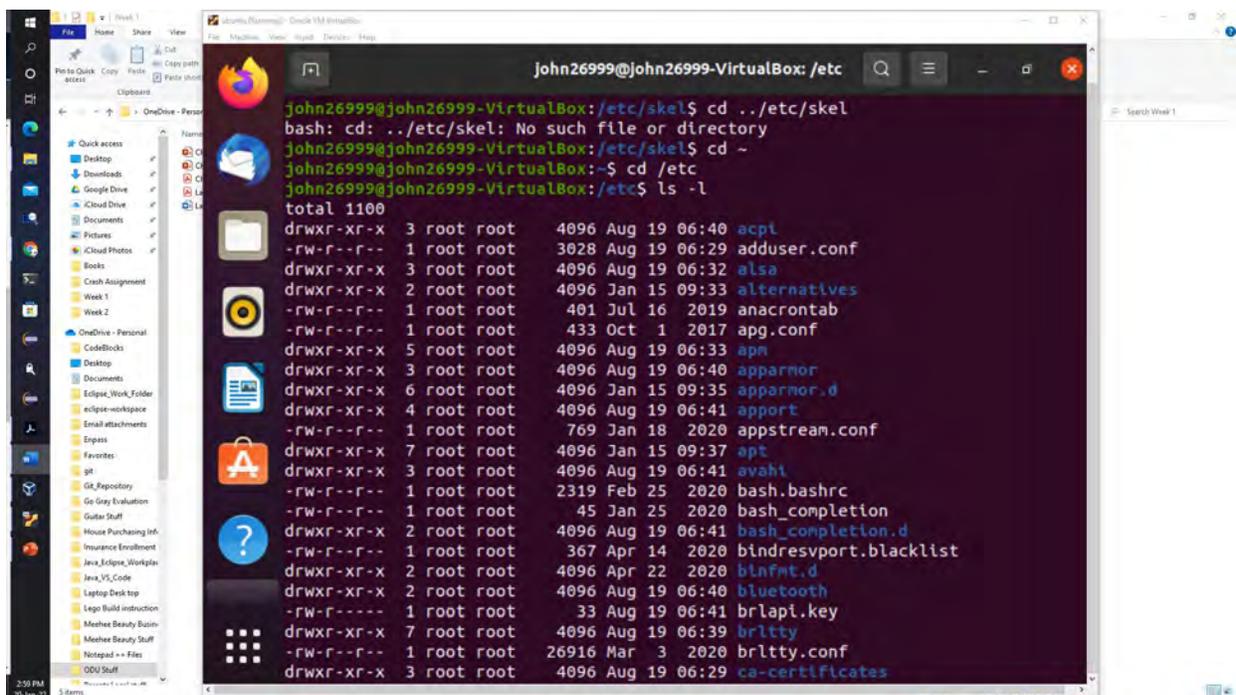


Figure 5 Screenshot of JWILS082 Computer screen for step 4

However, I did it again in another directory to show what the long display is supposed to show.

5. Use **relative pathname** to move one folder above, then

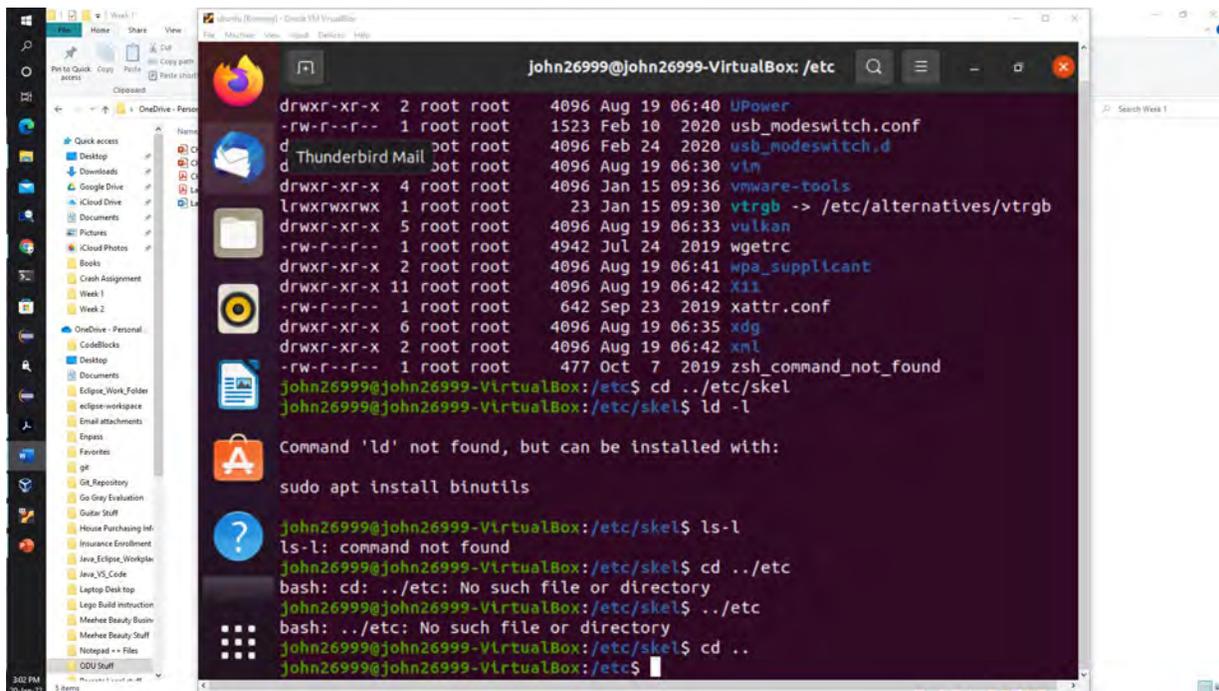


Figure 6 Screenshot of JWILS082 Computer screen for step 5

Above is a screenshot of the command `..` to move from the directory `etc/skel` to directory `etc/`. Two dots “..” means to move one directory up from the current directory. One dot “.” means to stay in the current directory.



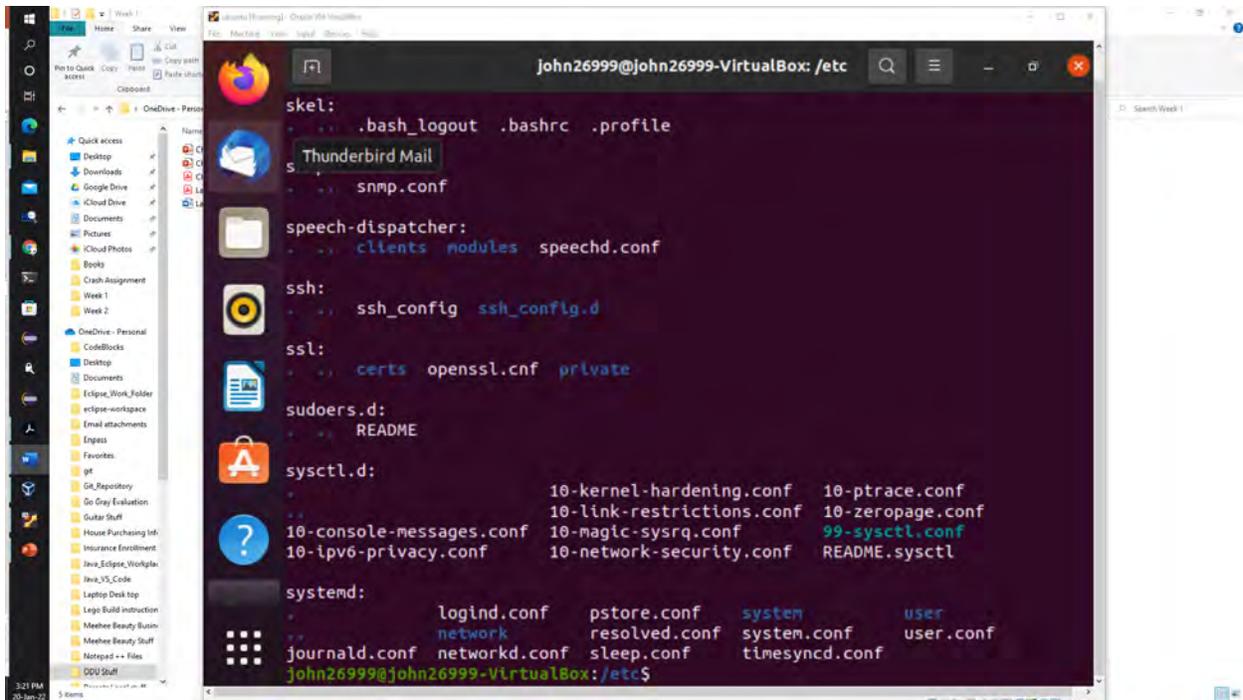


Figure 7 three screenshots of JWILS082 Computer screen for step 6

Above are the screenshots of the command “ls -a s\*” that lists all files which begin with the letter s. “ls” is the command to list all the files in the directory. “-a” is the command that lists all the files, including the hidden ones. “s\*” is the wildcard command that matches the characters in a filename. Below is the list of all the files within the etc/ directory.

7. Execute the command to return to your **home** directory.

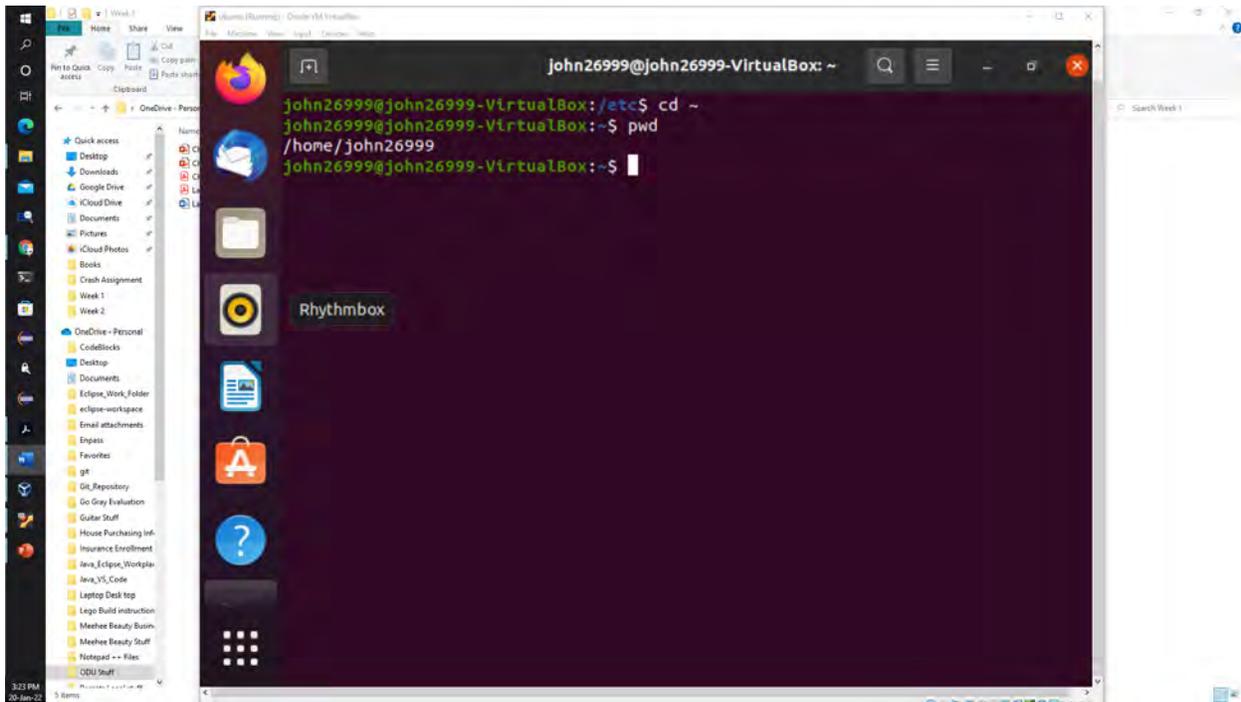


Figure 8 screenshot of JWILS082 Computer screen for step 7

Above is the screenshot of the command “cd ~” which returns you to the home directory. “cd” is the command to change the directory and “~” is argument to go home.

8. Make a directory named “Your\_MIDAS” in your home directory.

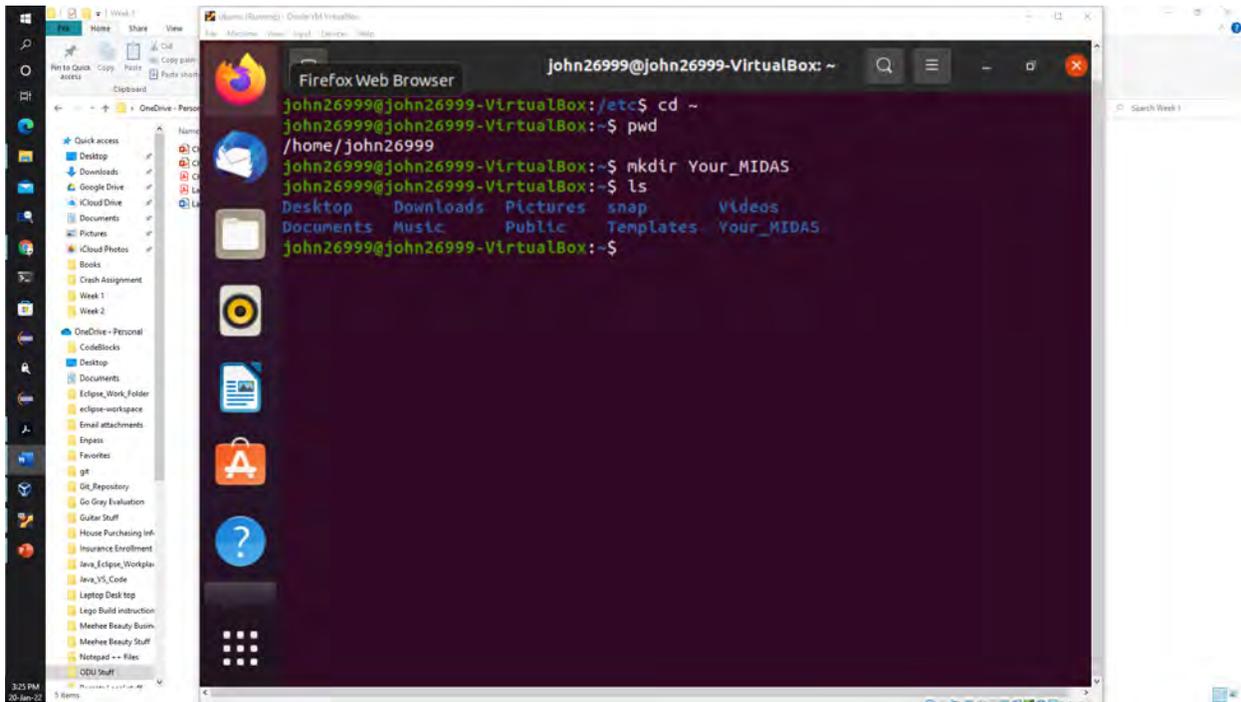


Figure 9 screenshot of JWILS082 Computer screen for step 8

Above is the screenshot of the command “mkdir Your\_MIDAS” which makes a new directory within the home directory. “mkdir” is the command to make a directory. “your\_MIDAS” is the argument that names the directory.

9. Use **two** different approaches to copy the **/etc/passwd** file into the directory created in the previous step.

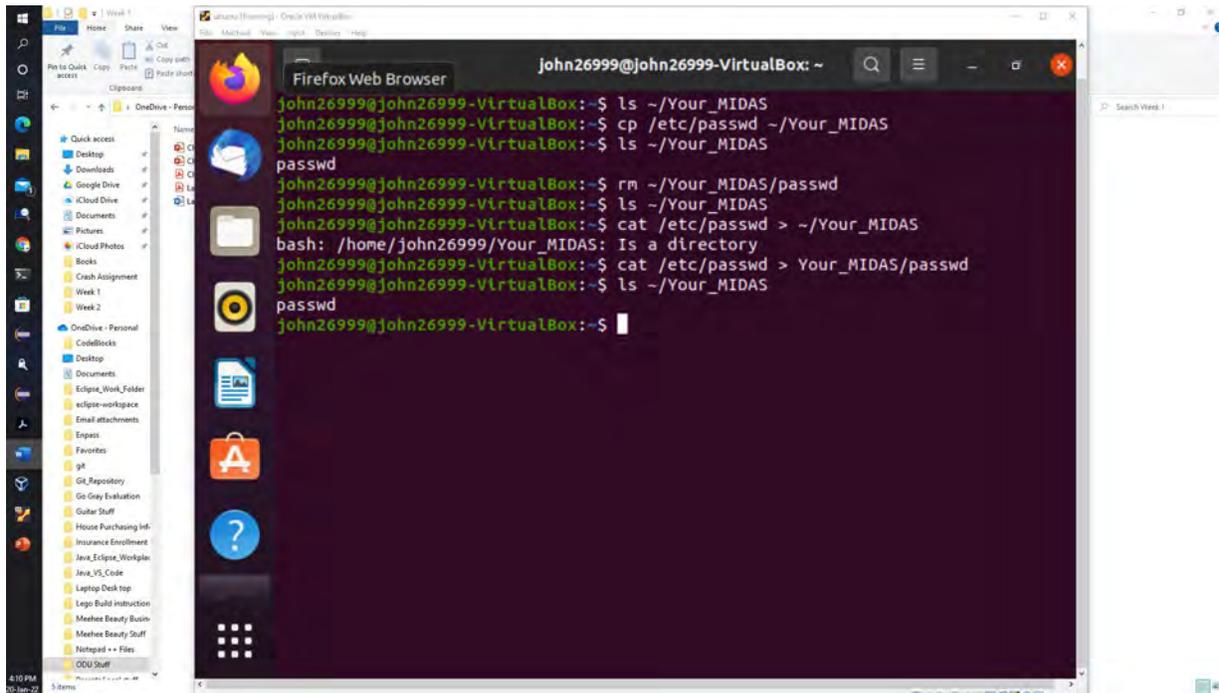


Figure 10 screenshot of JWILS082 Computer screen for step 9

Above is the screenshot of the commands “cp /etc/passwd ~/Your\_MIDAS” and “cat /etc/passwd > Your\_MIDAS/passwd” which copies the file passwd and places the copied file into the Your\_MIDAS directory.

The first approach uses the command and arguments “cp /etc/passwd ~/Your\_MIDAS”. “cp” is the command to copy. “/etc/passwd” is the file passwd and where the file is located in the etc directory. “~/Your\_MIDAS” is the destination of the file passwd.

The second approach uses the command and arguments “cat /etc/passwd > Your\_MIDAS/passwd”. “cat” is the command that reads data from a file and gives the output. “/etc/passwd” is the file passwd and where the file is located in the etc directory. “>” is a redirection-operator that says to push the file to a directory it is pointing. “Your\_MIDAS” is the destination of the file passwd.

10. Create a backup for the **passwd** file in the directory you created in Step 8 (use cp).

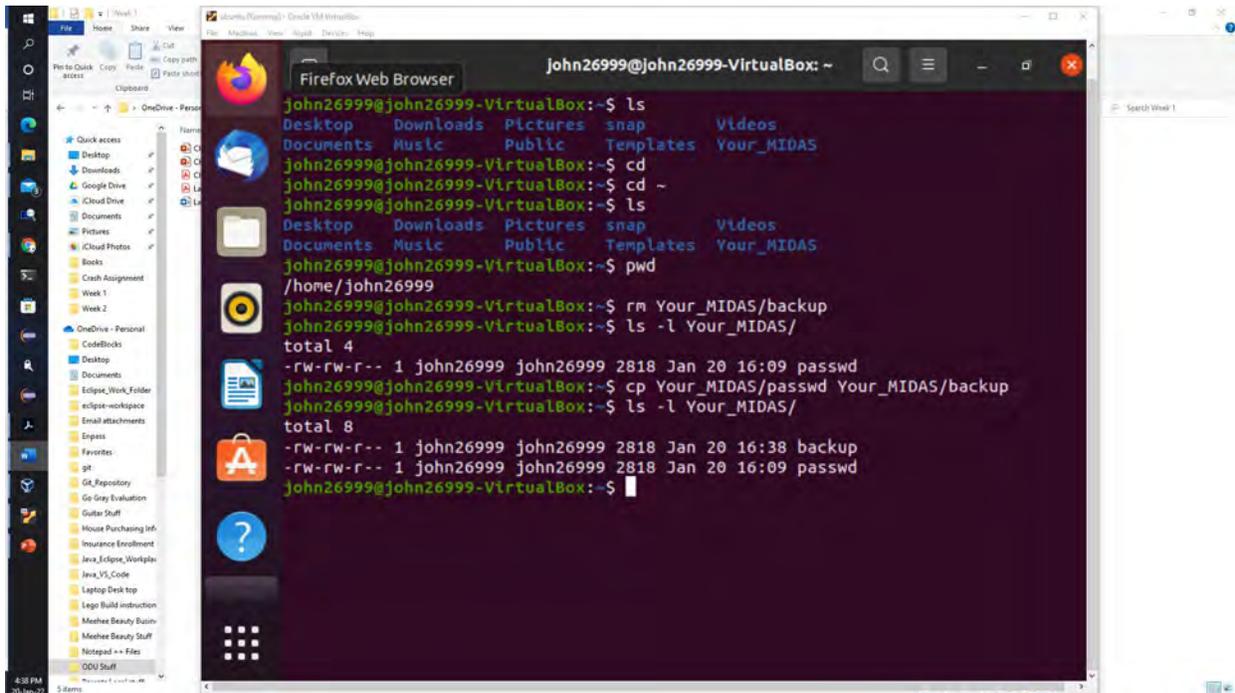


Figure 11 screenshot of JWILS082 Computer screen for step 10

Above is the screenshot of the command “cp Your\_MIDAS/passwd Your\_MIDAS/backup” which copies the file passwd and makes a backup file into the Your\_MIDAS directory. “cp” is the command to copy. “Your\_MIDAS/passwd” is the relative path to where the file passwd is located in the your\_MIDAS directory. “Your\_MIDAS/backup” is the destination path to where the file backup (that was the copied passwd file) will be sent in the your\_MIDAS directory.

11. Create a new empty file named **test** in the directory you created in Step 8.

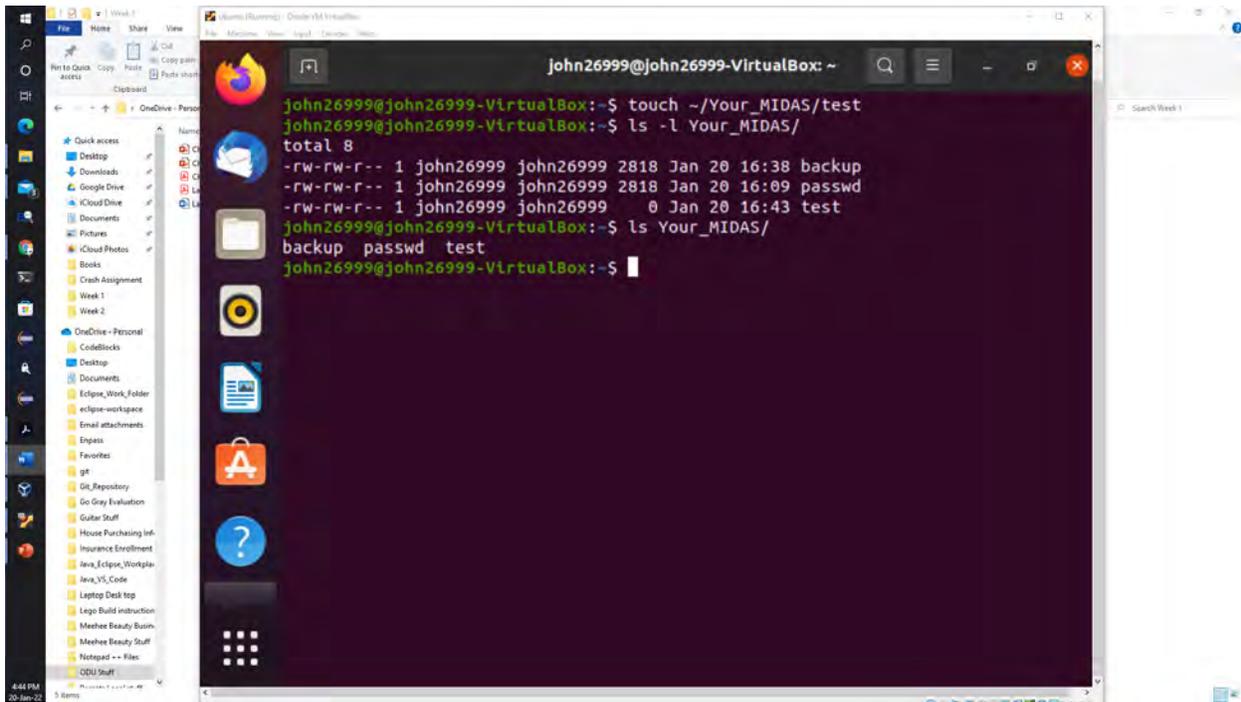


Figure 12 screenshot of JWILS082 Computer screen for step 11

Above is the screenshot of the command “touch Your\_MIDAS/test” which makes a new file names test and places it in the Your\_MIDAS directory. “touch” is the command to create a file. “Your\_MIDAS/test” is the relative path to where the file test is located in the Your\_MIDAS directory.

12. Rename the test file you created in Step 11 to **TEST**.

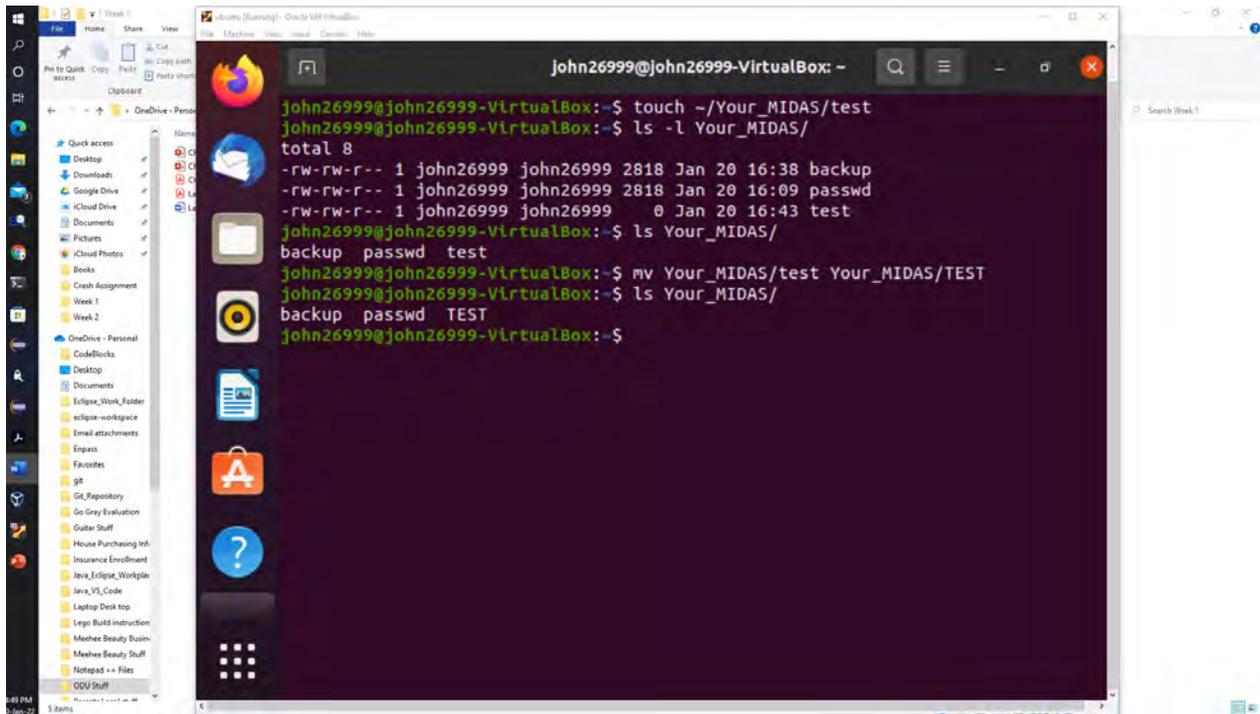


Figure 13 screenshot of JWILS082 Computer screen for step 12

Above is the screenshot of the command “mv Your\_MIDAS/test Your\_MIDAS/TEST ” which renames the file test to TEST in the Your\_MIDAS directory. “mv” is the command to move or rename a file. “Your\_MIDAS/test” is the relative path to where the file test is located in the Your\_MIDAS directory. “Your\_MIDAS/TEST” is the relative path to where the file test is located in the Your\_MIDAS directory and renames it to TEST.

### 13. Delete the TEST file.

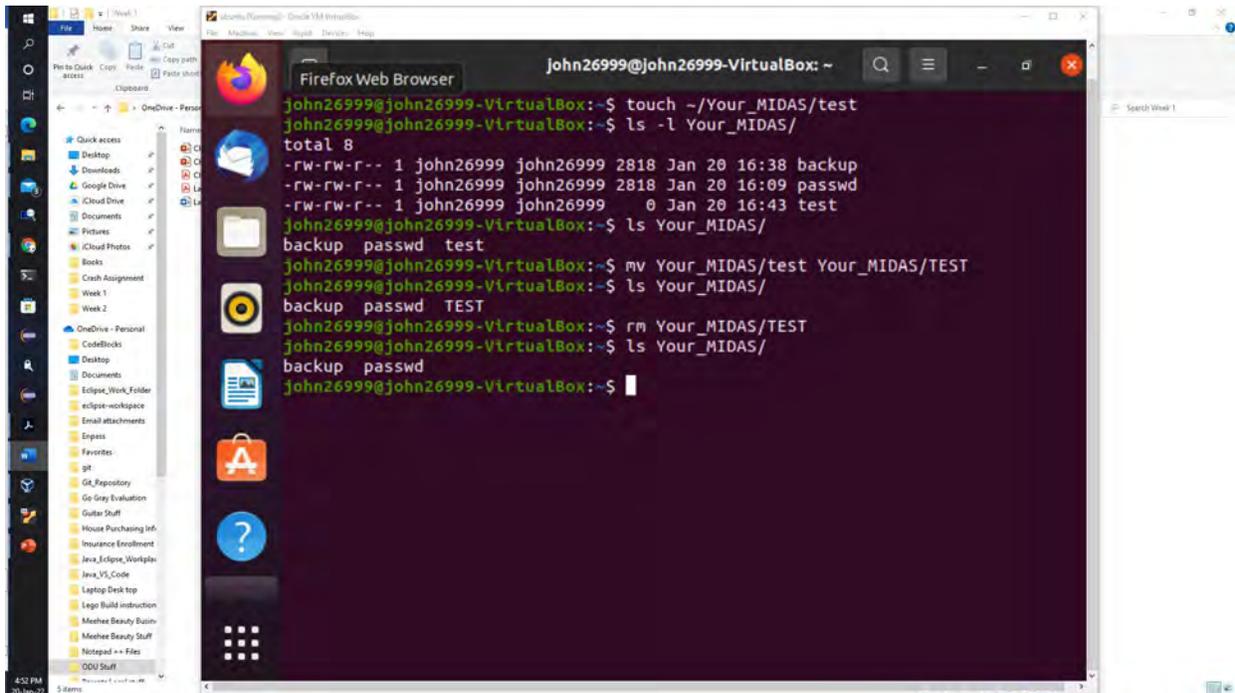


Figure 14 screenshot of JWILS082 Computer screen for step 13

Above is the screenshot of the command “rm Your\_MIDAS/TEST” which deletes the file TEST in the Your\_MIDAS directory. “rm” is the command to delete a file. “Your\_MIDAS/TEST” is the relative path to where the file TEST is located in the Your\_MIDAS directory and removes it.

14. Display only the **last five** lines of the `/etc/group` file.

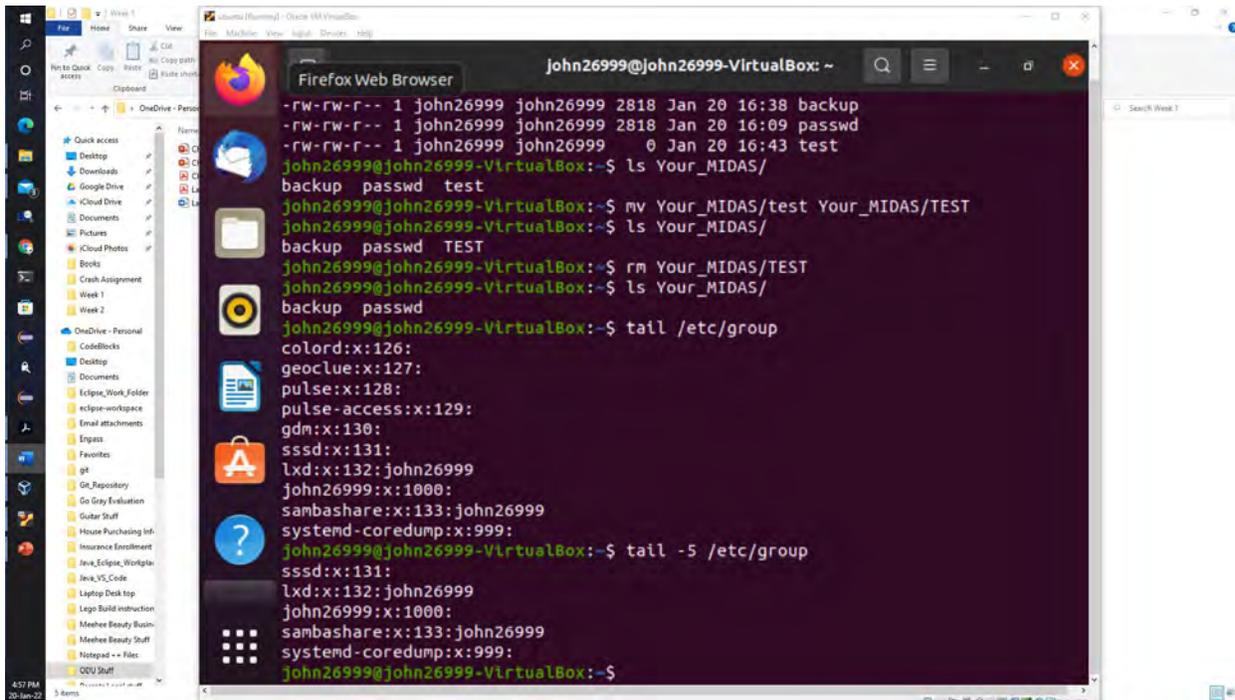


Figure 15 screenshot of JWILS082 Computer screen for step 14

Above is the screenshot of the command “tail -5 /etc/group” which shows the last five lines in the file group. “tail” is the command display the bottom part of the file data. “-5” is the command that shows exactly the last 5 lines. “/etc/group” is the absolute path to where the file group is located in the etc directory.

15. Run the command that will determine the **type** of contents in the **/etc/group** file.

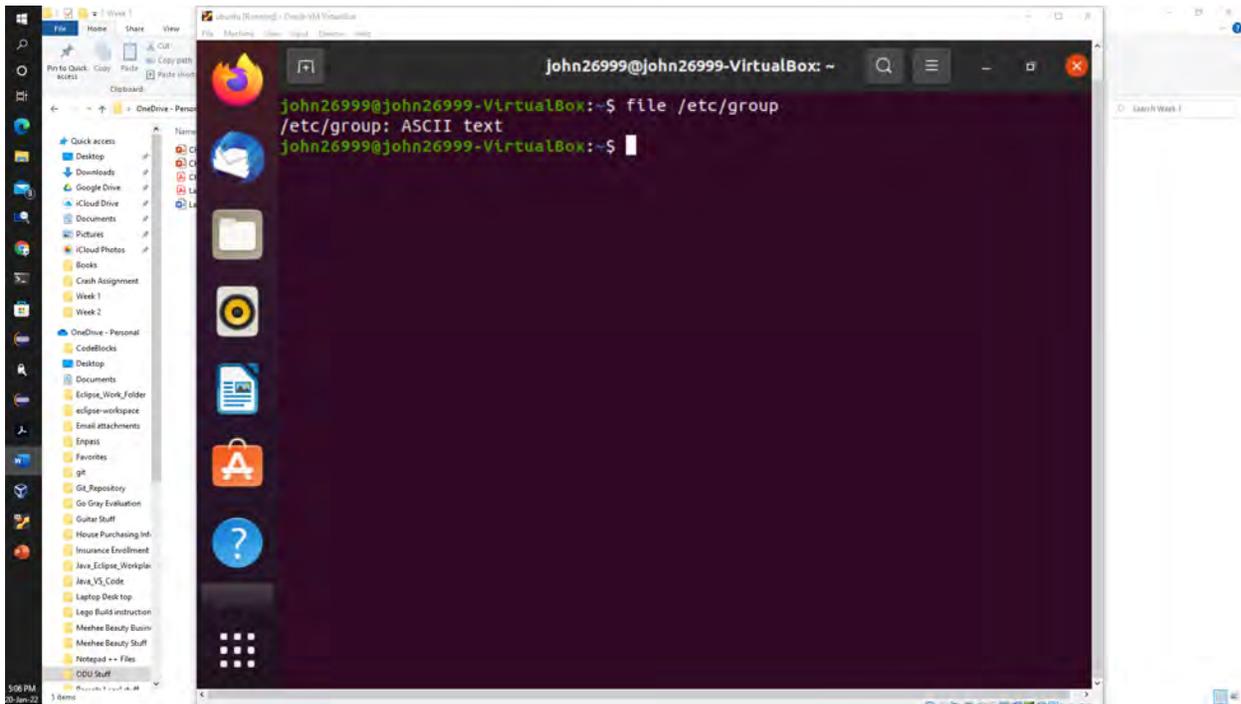


Figure 16 screenshot of JWILS082 Computer screen for step 15

Above is the screenshot of the command “file /etc/group” which determines the contents in the file group. “file” is the command that determines the type of file. “/etc/group” is the absolute path to where the file group is located in the etc directory.

16. Display the **first 5 lines** of `/etc/passwd` file.

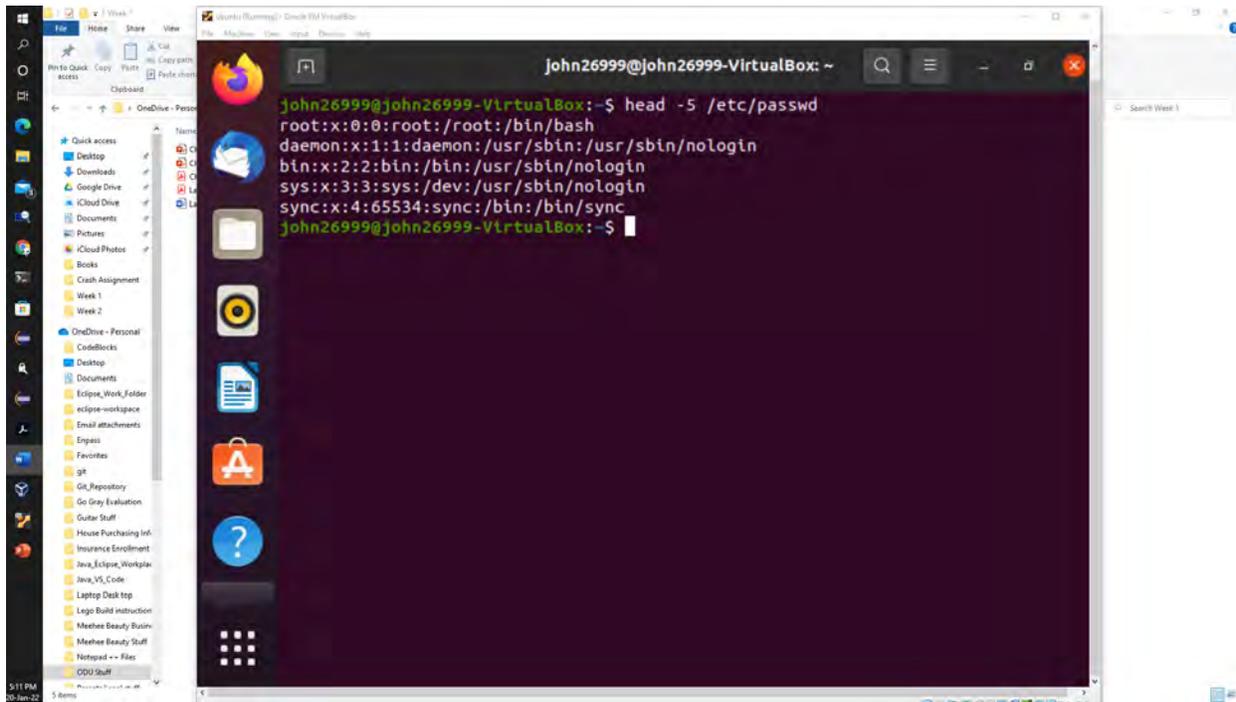


Figure 17 screenshot of JWILS082 Computer screen for step 16

Above is the screenshot of the command “head -5 /etc/passwd” which shows the first five lines in the file passwd. “head” is the command to display the beginning part of the file data. “-5” is the command that shows exactly 5 lines. “/etc/passwd” is the absolute path to where the file passwd is located in the etc directory.

17. Display the last 5 lines of /etc/passwd file.

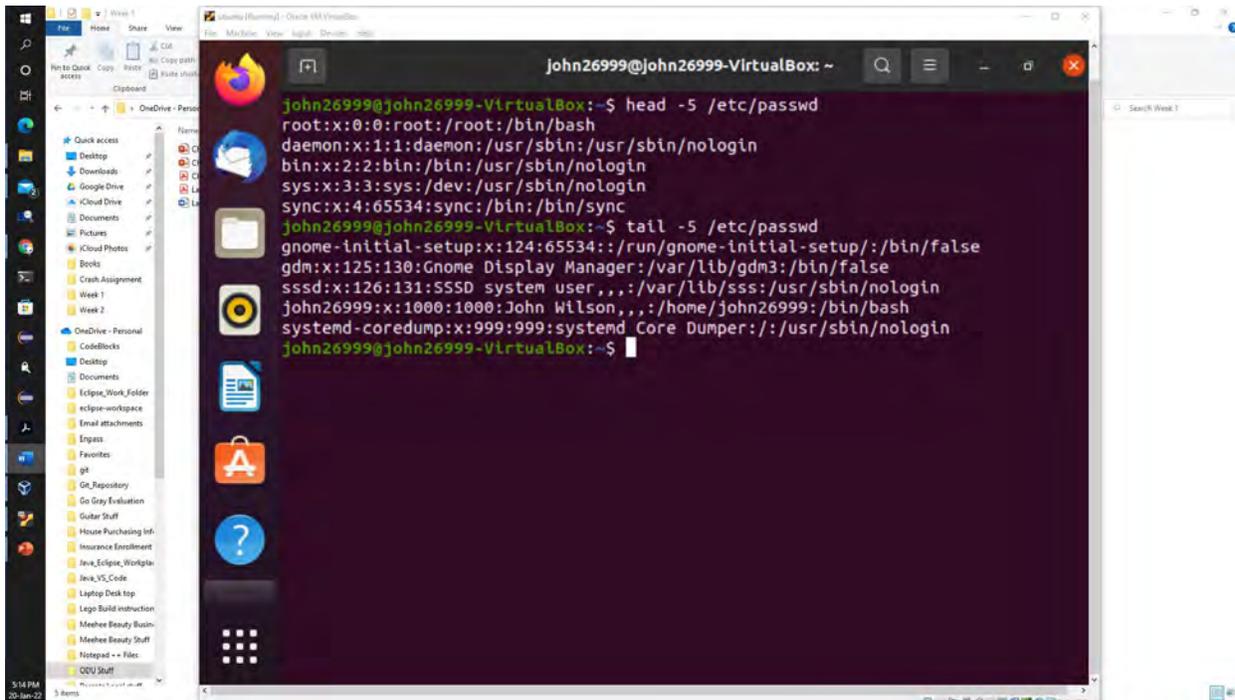


Figure 18 screenshot of JWILS082 Computer screen for step 17

Above is the screenshot of the command “tail -5 /etc/passwd” which shows the last five lines in the file passwd. tail” is the command to display the last part of the file data. “-5” is the command that shows exactly 5 lines. “/etc/passwd” is the absolute path to where the file passwd is located in the etc directory.

18. List the files and directories **in reverse order** by using the correct option with **ls** command.

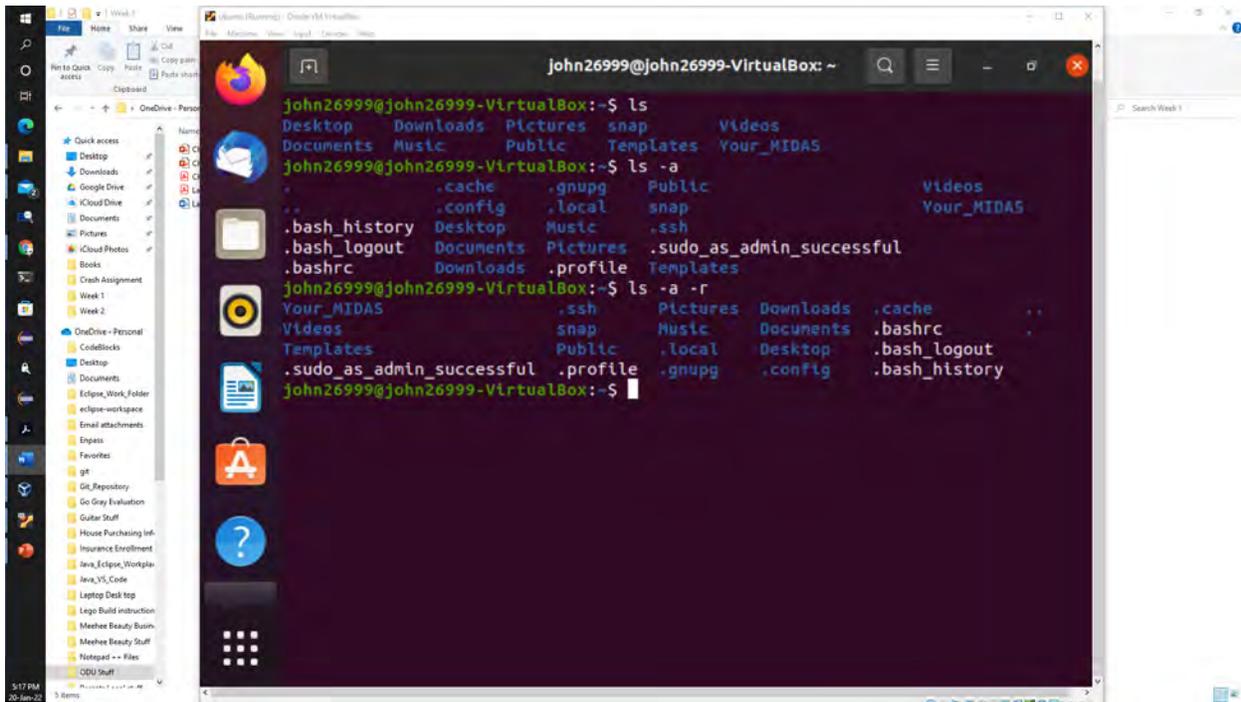


Figure 19 screenshot of JWILS082 Computer screen for step 18

Above is the screenshot of the command “`ls -a -r`” which shows the files and directories in reverse order. “`ls`” is the command to display the the files in the directory. “`-a`” is the command that shows all the files, including the hidden ones. “`-r`” is the command that displays the order in reverse.

## 19. Display all the environment variables.

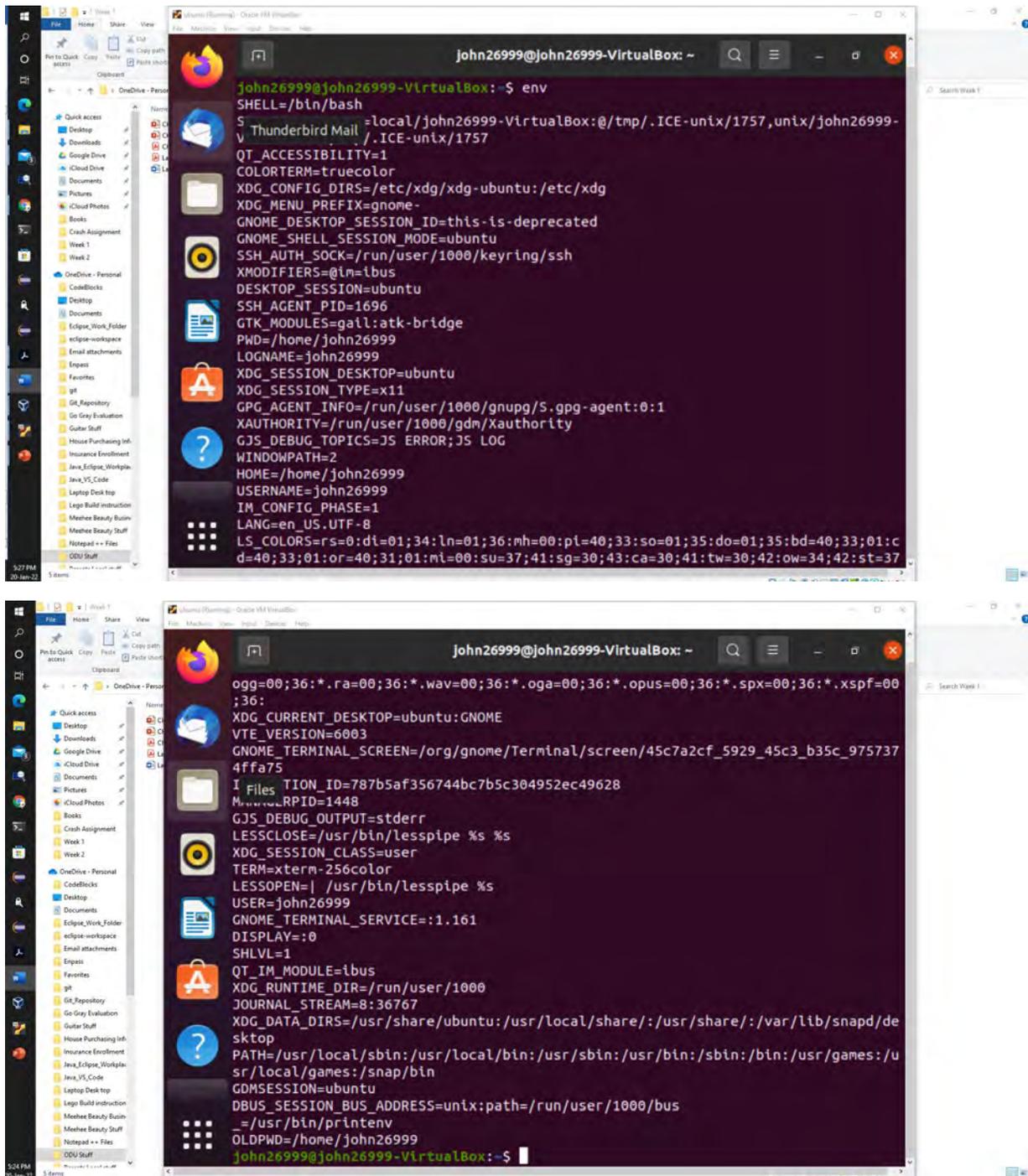


Figure 20 screenshot of JWILS082 Computer screen for step 19

Above is the screenshot of the command “env” which shows the environmental variables.

20. Display the value of the HOME variable.

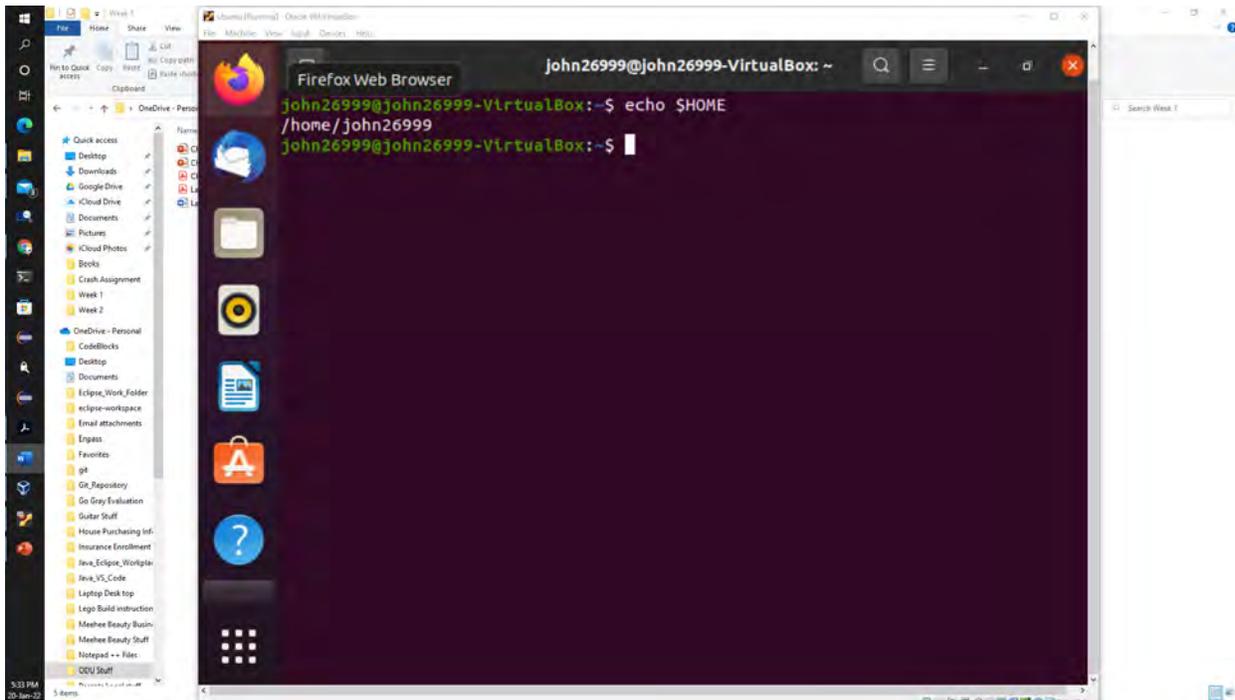


Figure 21 screenshot of JWILS082 Computer screen for step 20

Above is the screenshot of the command “echo \$HOME” which displays the value of the HOME variable. “echo” is the command to display the command or argument. “\$” means a shell prompt. “HOME” is the command that the current users home directory.