

# Final Assignment

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## Question 1 Commands

For every command in this list, include the following:

- Description
- formula/syntax
- 3 examples that you understand well

Commands:

- **awk** Description: awk is a scripting language used for processing and displaying text. formula/syntax: awk + options + {awk command} + file + file to save (optional) examples: awk '{print \$1}' ~/Documents/Csv/cars.csv awk -F: '{print \$1}' /etc/passwd awk -F: '{print \$NF}' /etc/passwd
- **cat** Description: The cat command is used for displaying the content of a file. formula/syntax: cat + option + file(s) to display examples: cat todo.lst cat ~/Documents/todo.lst cat -n ~/Documents/todo.md
- **cp** Description: copies files/directories from a source to a destination. formula/syntax cp + files to copy + destination examples: cp Downloads/wallpapers.zip Pictures/ cp -r ~/Downloads/wallpapers ~/Pictures/ cp Downloads/wallpapers/\* ~/Pictures/
- **cut** Description: used to extract a specific section of each line of a file and display it to the screen. formula/syntax: cut + option + file(s) examples: cut -d':' -f1,3 /etc/group cut -d',' -f3 filename.csv cut -d':' -f2 /etc/passwd
- **grep** Description: grep is used to search text in a given file. formula/syntax: grep + option + search criteria + file(s) examples: grep 'dracula' ~/Documents/dracula.txt grep -i 'dracula' ~/Documents/Books/dracula.txt grep -in 'dracula' ~/Documents/Books/dracula.txt
- **head** Description: displays the top N number of lines of a given file. formula syntax: head + options + file(s) examples: head ~/Documents/Book/Dracula.txt head -5 ~/Documents/Book/Dracula.txt head filename.txt
- **ls** Description: used for displaying all the files in an active directory. When no director is specified, ls displays the files in the current working directory. formula/syntax ls + option + directory to list examples: ls -a ls -a ~/Pictures ls -lR ~/Pictures
- **man** Description: manual for a comman inside a linux shell. formula/syntax: man + command examples: man passwd man ls man 5 passwd
- **mkdir** Description: is used for creating a directory or multiple directories. formula/syntax: mkdir + name of the directory examples: mkdir wallpapers mkdir wallpapers/ocean mkdir ~/Wallpapers/forest
- **mv** Description: moves and renames directories formula/syntax: mv + source + destination examples: mv Downloads/homework.pdf Documents/ mv Downloads/english\_homework.docx

/media/student/flashdrive/ mv games/ wallpapers/ rockmusic/ /media/student/flashdrive/

- **tac** Description: used for displaying the content of a file in reverse order. formula/syntax: tac + option + file(s) to display examples: tac todo.md tac ~/Documents/todo.md tac filename.txt
- **tail** Description: displays the last n Number of lines in a file. formula/syntax: tail + option + file examples: tail ~/Documents/Book/Dracula.txt tail -5 ~/Documents/Book/Dracula.txt tail filename.txt
- **touch** Description: is used for creating files. formula/syntax : touch + file to create examples: touch list touch ~/Downloads/game.txt touch "list of foods.txt"
- **tr** Description: used for translating or deleting characters from standard output formula/syntax: Standard output | tr + option + set + set examples: cat file.txt | tr '\_' '.' cat program.py | tr "[:space:]" '\t' cat program.py | tr -s "[:space:]" ' '
- **tree** Description: displays the structure of a directory or folder in a tree-like format. It provides a visual representation of the hierarchy of directories and subdirectories, along with the files contained within them. formula/syntax: tree + options + file(s) examples tree /path/to/directory tree -L 2 /path/to/directory tree -a /path/to/directory

## Question 2

### How to work with multiple terminals open?

- By right-click on the desktop or a file manager window and choose "Open Terminal" to open a terminal in the current directory.
- In one terminal you can keep using the commands and the other terminal you can use the ls command to help ensure a user is on the right track with the proper directory.

### How to work with manual pages?

- first input man ls
- then use spacebar to navigate to other pages
- hit / to search then type search term and press Enter
- press 'q' to exit manual page.

### How to parse (search) for specific words in the manual page?

- press / to search desired term
- then press enter to find term

### How to redirect output (> and |)?

- Use the > operator to redirect the output of a command to a file. Example: ls > file\_list.txt
- Use the | operator to send the output of one command as input to another command. Example: ls | grep "txt"
- Then by combining both > and | together to redirect the output of a command and then pipe it to another command. -- Example: ls -l > file\_details.txt

### How to append the output of a command to a file?

- To append the output of a command to a file, you can use the >> operator. This operator appends the output to the specified file. Example: `command >> output.txt`.

### How to use wildcards (For copying and moving multiple files at the same time)?

- Use `cp` command
- Use curly brackets {}, or regular brackets ()
- in brackets input file(s)
- Separate wildcard input inside a bracket with commas, and can also have multiple brackets.(this should move multiple files).
- Example: `cp {doc,.pdf} ~`

### How to use brace expansion (For creating entire directory structures in a single command)?

- use `mkdir` command
- then press / for the name of the directory you wanna create
- then use curly brackets {} separated with commas and input files you wanna create. (you can use multiple curly brackets separated with commas and the /)
- Example: `mkdir -p School/{F1,F2,F3}/{temp1,temp2}`