** Question One

For every command in this list, include the following:

- Description

- Formula/syntax

- 3 Examples that you understand well

Awk

- Description: Awk is a scripting language used for processing and displaying text. Awk can work with a text file or fro standard output.
- Usage:
- `awk + options + {awk command} + file + file to save` (optional)
- Examples:
  - awk -F: `{print $1}` /etc/passwd
  - awk -F: `{print $NF}` /etc/passwd
  - awk -F: `{print $1,"=",$NF}` /etc/passwd

Cat

- Description: The cat command is used for displaying the contect of a file. Cat is short for concatenate which is its command intended use.
- Usage:
- `cat + option + file(s) to display`
- Example:
- `cat -n ~/Documents/todo.md`
- `cat -b ~/Documents/todo.md`
- `cat -s ~/Documents/todo.md`

Cp

- Description: Cp copies files/directories from a source to a destination
- Usage:
- `cp + files to copy + destination`
- `cp -r + directory to copy + destination`
- Example:
- `cp Downloads/wallpapers.zip Pictures/`
- `cp -r ~/Downloads/wallpapers ~/Pictures/`
- `cp Downloads/wallpapers/* ~/Pictures/`

Cut

- Description: The cut command is used to extract a specific section of each line of a file and display it to the screen.
- Usage:
- `cut + option + file(s)`

- Example:
- `cut -b 1-5 usernames.txt`
- `cut -d ':' -f1,7 --output-delimiter=' => ' /etc/passwd`
- `ls -1 | cut -d ' ' -- complement -s -f1`

Grep

- Description: Grep is used to search text in given file. Grep works line by line basis (it matches the search criteria in a line by line basis)
- Usage:
- `grep + option + search criteria + file(s)`
- Example
- `grep -i 'dracula' ~/Documents/Books/dracula.txt`
- `grep -in 'dracula' ~Documents/Books/dracula.txt`
- `grep -o 'dracula' ~/Documents/Books/dracula.txt`

Head

- Description: The head command displays the top N number of lines of a given file. It prints the first 10 lines. If more than one file name is provided then data from each file is preceded
- Usage: `head + option + file(s)`
- Example
- `head ~/Documents/Book/dracula.txt`
- `head -5 ~/Documents/Book/dracula.txt`
- `head -15 ~/Documents/Book/dracula.txt`

Ls

- Description: Used for listing the content of a given directory or the file/directory itself
- Usage: `ls + option + directory to list`
- Example
- `ls cis106/`
- `ls -a ~/cis106/`
- `ls -1R ~/Pictures`

Man

- Description: Man (manual) pages are documentation files that describe linux shell commands, executable programs, system calls, special files, etc
- Usage: man ls
- Example
- `man passwd`
- `man 5 passwd`
- `man -f passwd`

mkdir

- Description: Used for creating a single directory or multiple directories

- **Usage:** `mkdir + the name of the directory`
- Example:
- `mkdir wallpapers`
- `mkdir wallpapers/sword`
- `mkdir ~/wallpapers/forest`

mv

- Description: moves and rename directories
- **Usage:** `mv + source + destination`
- Example
- `mv Downloads/homework.pdf Documents/`
- `sudo mv ~/Downloads/theme /usr/share/themes`
- `mv games/ wallpapers/ rockmusic/ /media/student/flashdrive`

tac

- Description: The tac command is used for displaying the content of a file in reverse order
- Usage:
- tac + option + file(s) to display
- Example
- `tac todo.md`
- `tac ~/Documents/todo.md`
- `tac -b`

Tail

- Description: The tail command displays the last N number of lines of a given file.
- Usage:
- `tail + option + file`
- Example
- Displys the last 10 lines of a file:
  - `tail ~/Documents/Book/dracula.txt`
- Displays the last 5 lines of a file:
  - `tail -5 ~/Documents/Book/dracula`

Touch

- Description: Touch is used for creating files
- **Usage:** `touch + fileName`
- Example
- `touch list`
- `touch list_of_cars.txt script.py names.csv`
- `touch ~/Downloads/games.txt`

Tr

- Description: The tr command is used for translating or deleting characters from standard output

- Usage: `Standard output | tr + option + set + set`
- Example
- Translate one character to another
  - `cat file.txt | tr '.' ','`
- Translate white space into tabs
  - `cat program.py | tr "[space:]" '\t'`
- Translate tabs into space
  - `cat file.py |tr -s "[:space:]" ' '`

Tree

- Description: Outputs the directory path and files in each sub-directory and a summary of a total number of sub-directories and files
- Usage:
- Example

Vim

- Description: The Vi command-line text editor is included in all POSIX compliant operating system
- Usage:
- Example

Question 2

- How to work with multiple terminals open? open one terminal the open another terminal and set them side by side. Or user tillix and split the terminal as needed.

- How to work with manual pages?

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

- How to redirect output (> and |)

- How to append the output of a command to a file

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

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