

Notes 4

Managing Files and Directories

1. Options and Arguments:

- Commands are often followed by options that modify enhance their behavior.
 - Commands are also followed by arguments which are the items the command acts on. This can be a file or directory.
 - Example: Command, -Option, Argument (ls -l ~/Downloads)
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2. `mkdir` (Creating Directories)

- Description: is used for creating a single directory or multiple directories.
 - Usage: `mkdir + (the name of the directory)`
 - Examples:
 - `mkdir wallpapers`: Create a directory in the present working directory.
 - `mkdir wallpapers/ocean`: Create a directory in a different directory using relative path.
 - `mkdir ~/wallpapers/forest`: Create a directory in a different directory using absolute path.
 - 1. `mkdir wallpapers/new\ cars...` 2) `mkdir wallpapers/'cities usa'`: Create a directory a space in the name `mkdir wallpapers/"majora's mask"`: Create a directory with a single quote in the name.
 - `mkdir wallpapers/cars wallpapers/cities wallpapers/forest`: Create multiple directories
 - `mkdir -p wallpapers_others/movies`: Create a directory with a parent at the same time.
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3. `touch` (Creating Files)

- Description: Used for creating Files.(Note: Creating files is not what the purpose of the touch command . The touch command updates any given file's timestamp. But, if the file does not exist, it creates it.)
 - Usage: `touch`
 - Examples:
 - `touch list`: To create a file called list.
 - `touch list_of_cars.txt script.py names.csv`: To create several files.
 - `touch ~/Downloads/games.txt`: To create a file using absolute path.
 - `touch Downloads/games2.txt`: To create a file using relative path.(Assuming your pwd is your home directory.)
 - `touch "list of foods.txt"`: To create with a space in its name.
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4. `rm` (Deleting files and directories)

- Description: Removes files(By default does not remove directories. To remove a directory use `rm` with the `-r` option)/Linux and other Nix systems you cannot remove non empty directories.
- Usage: Removes files and directories.

- Examples:
 - `rmdir`: To remove empty directories.
 - `rm -r + "directory name or directory absolute path."`
 - `rm list`: Remove a file.
 - `rm -i list`: Remove a file and prompt confirmation before removal.
 - `rm -l Downloads/games/*`: Removes all the files inside a directory and ask before removing more than 3 files.
 - `rmdir Downloads`: Remove an Empty directory.
 - `rm -r Downloads/games`: Remove an non-empty directory
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5. `mv` (Moving files and directories)

- Description: Moves and renames directories. Where source is the file or directory that you want to move and destination is where the directory or file is going.
 - Usage: `mv + source + destination`
 - Examples:
 - `mv Downloads/homework.pdf Documents/`: To move a file from a directory to another using relative path.
 - `sudo mv ~/Downloads/theme /usr/share/themes`: To move a directory from one directory to another using absolute path. (Notice that in this command i am using `sudo` since the destination is owned by root)
 - `mv Downloads/english_homework.docx /media/student/flashdrive/`: To move a file from one directory to another combining absolute path and relative path. (Notice that in this command i am moving the file "english_etc..." to the directory where the flash drive is mounted.)
 - `mv games/ wallpapers/ rockmusic/ /media/student/flashdrive/`: To move multiple directories/files to a different directory.
 - `mv homework.docx cis106homework.docx`: To rename a file
 - `mv ~/Downloads/homework.docx ~/Downloads/cis106homework.docx`: To rename a file using absolute path.
 - `mv Downloads/cis106homework.docx Documents/new_cis106homework.docx`: To move and rename a file in the same command.
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6. `cp` (Copying files and directions)

- Description: `cp` copies files/directories from a source to a destination.
- Usage: `cp + files to copy + destination`
- Examples:
 - `cp Downloads/wallpapers.zip Pictures/`: To copy A FILE
 - `cp -r ~/Downloads/wallpapers ~/Pictures/`: To copy a directory with absolute path
 - `cp Downloads/wallpapers/* ~/Pictures/`: To copy the content of a directory to another directory
 - `sudo cp -r script.sh program.py home.html assets/ var/www/html/`: To copy multiple files in a single command.