Final Study Guide

date

Description

Displays the current date

syntax

Date

uname

Description

Displays information about your system

du

Description

Information of the disk usage of files and directories of on the machine

free

Description

Displays amount of free memory

syntax

free

echo

Description

outputs strings that are passed as arguments

syntax

echo + "........."

apt

Description

Used for installing/removing and updating Debian Packages.

syntax

Sudo + apt + install + package name

Example

- To install several programs in a single command
  - `sudo apt install firefox flameshot caffeine -y`
- To install and remove in a single command
  - sudo apt install firefox+ flameshot- caffeine- vlc+

pwd

Description

Used for displaying the current working directory

cd

Description

Used for changing the current working directory. When no directory is given cd changed the current directory to the home directory

syntax

cd + destination

Example

- Brings you to home directory
  - `cd ~`
- go back or more directories
  - `cd ../`
-

ls

Description

Used for displaying all the files inside a given directory. when no directory is specified, ls displays the files in the current directory.

syntax

ls + files to list

Example

- list all files and hidden files
    - `ls -a`
- list all files by size
    - `ls -S`
- to long list
    - `ls -lh`

tree

Description

display content of a directory ina tree- like format

syntax

tree + command

man

Description

is a manuel in the terminal

syntax

man + option

mkdir

Description

Used for creating a single directory or multiple directories

syntax

mkdir + the name of the directory

Example

-

touch

Description

is used for creating files

syntax

Touch + the file you want to create

Example

- to create multiple files
    - `touch + the multiple files you want to create
- To create a file using absolute path
    - touch ~/Downloads/games.txt
- Create a file with a space in its name
    - Touch "list of foods.txt

rm

Description

Removes FIles

syntax

rm + file you want to remove rmdir to remove empty directories rm -r + directory name for non empty directories.

Example

- remove all files inside a directory and ask before removing more than 3 files
    - `rm -I Downloads/games/*

cp

Description

copies files from a source to a destination

syntax

cp + files to copy + destination

Example

- to copy the content of a directory to another directory
    - `cp downloads/wallpapers/* ~/pictures/
- to copy multiple files in a single command
    - `sudo cp -r`

mv

Description

Moves and renames directories

syntax

mv + source + destination

Example

- To move and rename a file in the same command
  - `mv ~/downloads/homework.docx ~/downloads/cis106homework.docx`
- renaming files
  - `mv + file/directory to rename + new name`
- to move using absolute path
  - `sudo mv`

Wildcards (*,?,[])

Description

Wildcard represents letters and characters used to specify a file name for searches. A star matches anything and nothing and matches any number of characters. The ? matches wuth one character. The [] matches with a single charcater in a range

Example

- ls *.txt will match all the files that in in txt
- ls -1x *.?? will list all the files in a signle command. the * will match any file name the period is static as it is part of the file extension. the ?? indicates the file must have 2 characters.
- ls f[aeiou]*, ls *[0-9]

Brace expansion

Description

allows you to generate arbitrary strings to use with commands

Example

- to create a N number of files
  - `touch website{1..5}.html`

cat

Description

To display the content of a file.

syntax

cat + option + file(s) to display

Example

- display the content of a file with line numbers
    - cat -n ~/documents/todo.md
- file supressing repeating lines
    - cat -s
- excluding empty lines
    - cat -b

head

Description

Displays the top number of lines of a given file.

syntax

head + option + file(s)

Example

- display the first 10 lines
    - `head ~/documents/books
- display the first 5 lines
    - head -5

tail

Description

Displays the last number of lines given by a file

syntax

tail + option + file

Example

- last 10 line
    - `tail ~/documents/books
- last 5 lines
    - tail -5

cut

Description

Used to extract a specific section of each line of a file and display it to the screen.

syntax

cut + option + file(s)

Example

- display a list of users in your system
  - `cut -d ':' -f1
- changing the delimeter in the output
  - `cut -d ':' -f1,7 --output-delimiter=' => '`

tr

Description

syntax

Example

paste

Description

Used for joining files horizontally in columns

syntax

paste + option + files

Example

- merge two files using a diff delimiter
  - `paste -d":"

wc

Description

Used for printing the number of lines

syntax

wc + option +file(s)

Example

- display the number of characters in a file
  - `wc -m`
- number of lines
  - `wc -l`
- number of words

- `WC -W`

grep

Description

used to search text in given file

syntax

grep + option + search criteria +file(s)

Example

output redirection

Description

Pipe allows you to redirect the standard output of a command to the standard input

syntax

command 1 | command 2| command 3|

Example

- man ls | grep "human-readable"
- head -2 file.lst |tail -1
-

Saving the output of a command

syntax

command output + > +file

Example

- `ls -lA ~ > all-files

vim or nano (basic stuff: open a file, close a file, edit a file)

Description

command line text editor. Using the e command will tell vim you want to edit a file. Vim has certain modes

- insert mode for text
- normal mode for manipulating text
- command mode for enetering commands
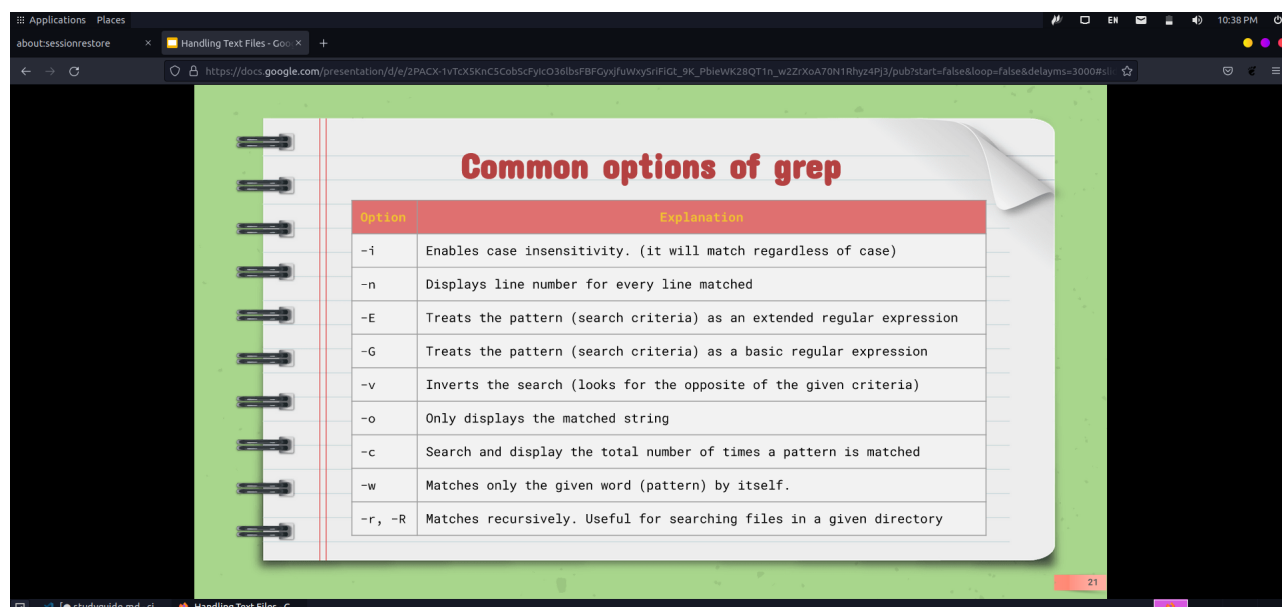
tar

Description

creates archives by combines files and directories into one file

syntax

tar + option + archive name + files to add to archive

Example

- tar -cf files.tar file 1 file 2

gz, bzip2, or xz

Description

These commands are used for compression

Example

- compress a single file
  - `gzip file.txt`
  - `bzip2 file.txt`

chmod

Description

change permissions on files and directories

Example

- chmod u+x
- chmod o-x
- chmod u=rwx

- compress a single file
  - `gzip file.txt`
  - `bzip2 file.txt`