

# Week Report 7

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## Handling Textfiles.

### cat command

- What is the command used for?
  - used for displaying the content of a file.
- What is the formula of the command
  - cat +option +file/s to display

Examples of using the command:

#### Display the content of a file located in the pwd

```
* cat todo.list
```

#### Display the content of a file using absolute path

```
* cat ~/Documents/todo.lst
```

### tac command

- What is the command used for?
  - displaying the content of a file in a reverse order
- What is the formula of the command
  - tac + option +file/s to display

Examples of using the command:

#### Display the content of a file located in the pwd

```
* tac todo.md
```

#### Display the content of a file using absolute path

```
* tac ~/Documents/todo.md
```

## head command

- What is the command used for?
  - display the top N number of lines of a given file. by default, it prints out the first 10 lines.
- What is the formula of the command
  - head + option +file/s

Examples of using the command:

### Display the first 10 lines of a file

```
* head ~/Documents/Book/dracula.txt
```

### Display the first 5 lines of a file

```
* head -5 ~/Documents/Book/dracula.txt
```

## tail command

- What is the command used for?
  - displays the N number of lines of a given file. By default, it prints the last 10 lines
- What is the formula of the command
  - tail + option + file
  -

Examples of using the command:

### Display the last 10 lines of a file

```
* tail ~/Documents/Book/dracula.txt
```

### Display the last 5 lines of a file

```
* tail -5 ~/Documents/Book/dracula.txt
```

## cut command

- What is the command used for?
  - used to extract a specific section of each line of a file and display it to the screen
- What is the formula of the command
  - cut + option + file/s

Examples of using the command:

### Display a list of all the users in your system

```
* cut -d ':' -f1 /etc/passwd
```

### Display a list of all the users in your system with their login shell

```
* cut -d ':' -f17 /etc/passwd
```

## paste command

- What is the command used for?
  - used for joining files horizontally in columns
- What is the formula of the command
  - paste + option + files

Examples of using the command:

### Merge two files

```
* paste users.lst ip_address .lst
```

### Merge two files using a different delimiter

```
* paste -d ":" users1.lst ip_addresses.lst
```

## sort command

- What is the command used for?
  - used for sorting files alphabetically, in reverse order, by number and by month
- What is the formula of the command
  - sort + option + file

Examples of using the command:

### Sort a file

```
* sort users.lst
```

### Sort a file by column number

```
* sort -k 2 users.txt
```

## wc command

- What is the command used for?
  - used for printing the number of lines, characters and bytes in a file
- What is the formula of the command
  - wc + option + file/s

Examples of using the command:

### Display the number of characters in a file

```
* wc -m users.txt
```

### Display the number of lines in a file

```
* wc -l users.txt
```

## tr command

- What is the command used for?
  - used for translating or deleting characters from standard point
- What is the formula of the command
  - standard output | tr +option + set + set

Examples of using the command:

**Translate one character to another (a period with a comma)**

```
* cat file.txt | tr '.' ','
```

**Translate tabs into space**

```
* cat file.py | tr -s "[:space:]" '/t'
```

## diff command

- What is the command used for?
  - compares files and displays the differences between them
- What is the formula of the command
  - diff + option + file1 +file2

Examples of using the command:

**Display the difference between two files**

```
* diff cars.csv cars-backup.csv
```

**Display the difference between two files in a column format:**

```
* diff -y cars.csv cars-backup.csv
```

## grep command

- What is the command used for?

- to search text in a given file.
- What is the formula of the command
  - grep + option + search criteria + file/s

Examples of using the command:

**Search any lines that contains the word "dracula" in the given file**

```
* grep 'dracula- ~Documents/dracula.txt
```

**Search and match only the word**

```
* grep -o 'dracula ~/Documents/Books/dracula.txt
```

**awk command**

- What is the command used for?
  - a scripting language used for processing and displaying text.
- What is the formula of the command
  - awk + options + {awk command} + file + file to save (optional)

Examples of using the command:

**Print the first column of every line of a file**

```
* awk {print $1} ~/Documents/Csv/cars.csv
```

**Print first field of /etc/passwd**

```
* awk -F: '{print$1}' /etc/passwd
```

**Print the last field of the /etc/passwd file**

```
* awk -F: '{print $NF}' /etc/passwd
```

**print the first and last field of the /etc/passwd**

```
* awk -F: '{print $1," = ", $NF} /etc/passwd
```

**Print the first and 3 fields with line numbers**

```
* awk -F: '{print NR,$1,$3}' /etc/passwd
```

**sed command**

- What is the command used for?
  - a stream editor that performs operations on files and standard output.
- What is the formula of the command:
  - sed options + sed script + file

**Examples of using the command****Replacing a string in given file (replace pizza for rice)**

```
* sed 's/pizza/rice/' shopping-list.lst
```

**Replacing the number of occurrences of a pattern in a file**

```
* sed 's/pizza/rice/4' shopping-list.lst
```

**Replacing all the occurrences of the pattern in a file**

```
* sed 's/pizza/rice/g' shopping-list.lst
```

**Replacing string on a specific line number**

```
* sed '3 s/pizza/rice/' shopping-list.txt
```

**Replacing string on a range of lines**

```
* sed '1,3 s/pizza/rice/' shopping-list.lst
```