

Week Report 7: List of Commands and Their Uses

Commands	What It Does	Syntax	Example
cat	display contents of a file	cat + option + file(s) to display	<code>cat todo.lst</code> and <code>cat ~/Documents/todo.lst</code>
tac	display the content of a file in reverse order	tac + option + file(s) to display	<code>tac todo.md</code> and <code>tac ~/Downloads/todo.md</code>
head	displays the top N number of lines of a file	head + option + file(s)	<code>head ~/Documents/Book/dracula.txt</code> and <code>head -5 ~/Documents/Book/dracula.txt</code>
tail	displays the last N number of lines of a file	tail + option + file(s)	<code>tail ~/Documents/Book/dracula.txt</code> and <code>tail 5 ~/Documents/Book/dracula.txt</code>
cut	extracts section of each line of file and displays	cut + option + file(s)	<code>cut -d ':' -f1 /etc/passwd</code> and <code>cut -d ':' -f1,7 /etc/passwd</code>
paste	joins files horizontally in columns	paste + option + files	<code>paste users.lst ip_address.lst</code> and <code>paste -d ':' users1.lst ip_addresses.lst</code>
sort	sorts file	sort + option + file(s)	<code>sort users.lst</code> and <code>sort -r users.txt</code>
wc	prints the number of lines, characters, and bytes in a file	wc + option + file(s)	<code>wc -m users.txt</code> and <code>wc -l users.txt</code>
tr	translates or deletes characters from standard output	Standard output tr + option + set + set	<code>cat file.txt tr '.' ','</code> and <code>cat file.py tr -s "[:space:]" ' '</code>
diff	compares files and displays the differences between them	diff + option + file1 + file2	<code>diff cars.csv cars-backup.csv</code> and <code>diff -y cars.csv cars-backup.csv</code>
grep	search text in given file	grep + option + search criteria + file(s)	<code>grep 'dracula' ~/Documents/dracula.txt</code> and <code>grep -i 'dracula' ~/Documents/dracula.txt</code>

The awk Command

awk is a scripting language used for processing and displaying text.

Formula:

- awk + options + {awk command} + file + file to save <--- (optional)

Examples:

- Print first field of /etc/passwd file
 - `awk -F: '{print $1}' /etc/passwd`
- Print last field of /etc/passwd file
 - `awk -F: '{print $NF}' /etc/passwd`
- Print first and last field of /etc/passwd file
 - `awk -F: '{print $1," = ",$NF}' /etc/passwd`
- Print first and 3 fields with line numbers
 - `awk -F: '{OFS="="}{print $1,$4}' /etc/passwd`
- Start printing a file from a given line (exclude the first 2 lines)
 - `awk 'NR > 3 { print }' /etc/passwd`

The sed Command

SED is a stream editor that performs operations on files and standard output.

Formula:

- sed options + sed script + file

Examples:

- Replace a string in given file (replace pizza for rice)
 - `sed 's/pizza/rice' shopping-list.lst`
- Replace the number of occurrences of a pattern in a file
 - `sed 's/pizza/rice/4' shopping-list.lst`
- Replace all occurrences of a 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.lst`
- Replace a string on a range of lines
 - `sed '1,3 s/pizza/rice' shopping-list.lst`