

Week Reports 7

Commands

- **The cat command:**

- The cat command is used for displaying the content of a file.
- The formula of the command is **(cat + option + file)**.
 - **Two example:**
 - cat -n ~/Documents/bible.txt , -n is to display the content of a file with line numbers.
 - cat -b ~/Documents/todo.md , -b is to display the content of a file with line numbers excluding empty lines.

- **The tac command:**

- The tac command is used for displaying the content of file in reverse order.
- The formula of the tac command is **(tac + option + file)**.
 - **Two example:**
 - tac bible.txt
 - tac ~/Documents/todo.md

- **The head command:**

- The head command displays the top N number of lines of a given file. First 10 lines of a file.
- The formula of the command **(head + option + file)**.
 - **Two example:**
 - head ~/Documents/Books/dracula.txt
 - head -5 ~/Documents/Book/dracula.txt, the -5 display the first 5 lines of a file.

- **The tail command:**

- The tail command displays the last N number of lines of a given file. The last 10 lines.
- The formula of the tail command is **(tail + option + file)**
 - **Two example:**
 - tail ~/Documents/Books/dracula.txt
 - tail -5 ~/Documents/Books/dracula.txt , -5 displays the last 5 lines of a file.

- **The cut command.**

- The cut command is used to extract a specific section of each line of a file and display it to the screen.
- The formula is **(cut + option + file)**
 - **Two examples:**
 - cut -d ':' -f1 /etc/passwd , display a list of all users in your system.

- `cut -d ':' -f1,7 /etc/passwd` , display a list of all users in your system with their login shell.

- **The paste command.**

- The paste command is used for joining files horizontally in columns.
- The formula is **** Paste + option + file.****
 - **Two examples:**
 - `paste bible.txt book.txt`
 - `paste -d ":" bible.txt book.txt`, merging two files using a different delimiter.

- **The Sort command:**

- The sort command is used for sorting files.
- The formula for sort command **sort + option + file.**
 - **Two examples:**
 - `sort -o sorted.lst usr.lst`, sort a file and save the output to a new file.
 - `sort -r users.txt`, sort a file in a reverse order.

- **The wc command:**

- The wc command is used for printing the number of lines, characters and bytes in a file.
- The formula is **wc + option + file**
 - **Two Examples:**
 - `wc -m users.txt` , Display the number of characters in a file.
 - `wc -l users.txt` , Display the number of lines in a file.

- **The tr command**

- The tr command is used for translating or deleting characters from a standard output.
- The formula is **** standard output | tr + option + set**
 - **For examples**
 - `cat file.txt | tr ' ' '` , translate one character to another.
 - `cat program.py | tr "[:space:]" '\t'` , translate white space in to tabs.

- **The diff command**

- The diff command compares files and displays the differences between them.
- The formula is ****diff + option + file1 + file2**
 - **Two examples**
 - `diff cars.csv cars-backup.csv`
 - `diff -y cars.csv cars-backup.csv` , display the difference between two files in a column format.

- **The grep command**

- Grep is used to search a text in given file. grep works line by line basis.
- The formula is **grep + option + search criteria + file.**
 - **** Two Examples:****
 - `grep -n 'dracula' ~/Documents/Books/dracula.txt` , search any line that contains the word dracula regardless of case with number line.

- `grep -o 'dracula' ~/Documents/Books/dracula.txt` , search and match only the word.

- **The Awk command**

- The awk command is a scripting language used for processing and displaying text.
- The formula is `**awk + option + {awk command} +file +file to save.`
 - **Five Examples:**
 - `awk -F: '{print $1}' /etc/passwd` , it prints the first field of the file.
 - `awk -F: '{print $NF}' /etc/passwd` , it prints the last field of the file.
 - `awk -F: '{print toupper($1)}' /etc/passwd` , convert the first field to upper/lower case.
 - `awk '{print length($0)}' /etc/passwd` , it prints the length of line.
 - `awk 'NR > 3 { print }' /etc/passwd` , it starts printing a file from a given line. (exclude the first 2 lines).

- **The Sed command:**

- The sed command is a stream editor that perform operations on files and standard output.
- The formula is `**sed options + sed script + file`
 - **Five Examples:**
 - `sed 's/apples/bananas/' fruit-list.lst` , Replacing a string in a givin file.
 - `sed 's/apples/bananas/4' fruit-list.lst` , replacing the number of occurrences of a patteren in a file.
 - `sed '3 s/apples/bananas/' fruit-list.lst` , replacing string on a specific line number.
 - `sed '5d' fruit-list.lst` , is to delete a particular line (line 5).
 - `sed G fruit-list.lst` , is to insert one black lind after each line.