

Week Report 8

cat

- Definition
 - cat (concatenate) reads files and prints their content to the terminal. It can also combine multiple files and create new ones.
- Usage / Formula
 - Cat [OPTIONS] [FILE...]
- Examples
 - Cat notes.txt (Displays the content of notes.txt.)
 - Cat file1.txt file2.txt > combined.txt(Combines two files into one).
 - Cat -n script.sh (Shows file contents with line numbers).

tac

- Definition
 - tac is the reverse of cat. It prints file contents from bottom to top, line by line.
- Usage / Formula
 - tac [OPTIONS] [FILE]
- Examples
 - tac logfile.txt (Displays a log file in reverse order.)
 - tac list.txt > reversed.txt (Creates a reversed version of a file.)

head

- Definition
 - head displays the first part of a file. By default, it shows the first 10 lines.
- Usage / Formula
 - head [OPTIONS] [FILE]
- Examples
 - head songs.txt (Shows the first 10 lines.)
 - head -n 5 data.csv (Shows the first 5 lines.)

- `head -c 20 sample.txt` (Shows the first 20 characters.)

tail

- Definition
 - `tail` displays the end of a file. By default, it shows the last 10 lines. Often used for monitoring logs in real time.
- Usage / Formula
 - `tail [OPTIONS] [FILE]`
- Examples
 - `tail notes.txt` (Shows the last 10 lines.)
 - `tail -n 3 emails.txt` (Shows the last 3 lines.)
 - `tail -f /var/log/syslog` (Follows a file live as it updates.)

cut

- Definition
 - `cut` extracts columns, fields, or specific character ranges from a file.
- Usage / Formula
 - `cut OPTION [FILE]`
- Common options:
 - d → delimiter
 - f → field number
 - c → character position(s)
- Examples
 - `cut -d ',' -f 1,3 students.csv`. (Extracts the 1st and 3rd comma-separated fields.)
 - `cut -c 1-5 words.txt`. (Extracts characters 1 through 5 of each line.)
 - `cut -d ':' -f 1 /etc/passwd`. (Displays only usernames from the passwd file.)

sort

- Definition
 - `sort` arranges lines of a file alphabetically or numerically. It can also sort by specific fields.
- Usage / Formula

- `sort [OPTIONS] [FILE]`
- Common options:
 - r → reverse order
 - n → numeric sort
 - k → sort by field
 - u → unique entries only
- Examples
 - `sort names.txt`. (Sorts alphabetically.)
 - `sort -n numbers.txt`. (Sorts numerically.)
 - `sort -t ',' -k 2 students.csv`. (Sorts numerically.)

WC

- Definition
 - `wc` (word count) displays the number of lines, words, and characters in a file.
- Usage / Formula
 - `wc [OPTIONS] [FILE]`
- Common options:
 - l → count lines
 - w → count words
 - c → count bytes/characters
- Examples
 - `wc essay.txt`. (Shows lines, words, and characters.)
 - `wc -l logs.txt`. (Counts lines only.)
 - `wc -w *.txt`. (Counts words in all .txt files.)