Notes 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.)