

Notes8

1. cat

Definition: Displays the content of a file or combines multiple files and prints the result to the terminal.

Usage/Formula:

- `cat <filename>`
- `cat file1 file2`

Examples:

```
cat access.log  
cat file1.txt file2.txt
```

2. tac

Definition: Prints the contents of a file **in reverse order**, line by line.

Usage/Formula:

- `tac <filename>`

Examples:

```
tac access.log  
tac notes.txt
```

3. head

Definition: Displays the **first lines** of a file. By default, it shows the first **10 lines**.

Usage/Formula:

- `head <filename>`
- `head -n <number> <filename>`

Examples:

```
head access.log  
head -n 20 access.log
```

4. tail

Definition: Displays the **last lines** of a file. By default, it shows the last **10 lines**.

Usage/Formulas:

- `tail <filename>`
- `tail -n <number> <filename>`

Examples:

```
tail access.log  
tail -n 5 access.log
```

5. cut

Definition: Extracts specific sections or columns of each line in a file.

Usage/Formulas:

- `cut -d <delimiter> -f <fields> <filename>`

Examples:

```
cut -d ' ' -f 1 access.log      # First field (date)  
cut -d ' ' -f 3 access.log      # Username column  
cut -d ':' -f 2 time.txt        # Extract second part of timestamps
```

6. sort

Definition: Sorts lines of text alphabetically or numerically.

Usage/Formulas:

- `sort <filename>`
- `sort -n <filename>` (numeric sort)
- `sort -r <filename>` (reverse)

Examples:

```
sort access.log  
sort -r usernames.txt  
sort -n numbers.txt
```

7. WC

Definition: Counts **lines**, **words**, and **characters** in a file.

Usage/Formula:

- `wc <filename>`
- `wc -l <filename>` (line count)
- `wc -w <filename>` (word count)
- `wc -c <filename>` (character count)

Examples:

```
wc access.log  
wc -l access.log  
wc -w notes.txt
```