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awk

Definition awk is a powerful text processing tool used for pattern scanning and processing. It reads input files line by line and splits each line into fields based on a specified delimiter (default is whitespace).

Usage/Formula The basic syntax for awk is: `awk 'pattern { action }' input_file`

Examples Print Specific Fields

`awk '{ print $1, $3 }' file.txt` This command prints the first and third fields of each line from file.txt.

Filter Lines

`awk '$2 > 100' file.txt` This prints all lines from file.txt where the second field is greater than 100.

Calculate Sum

`awk '{ sum += $2 } END { print sum }' file.txt` This calculates the sum of the second field across all lines in file.txt and prints the result.

sed

Definition sed (Stream Editor) is a tool for parsing and transforming text in a pipeline. It allows for complex editing of text streams using regular expressions.

Usage/Formula The basic syntax for sed is: `sed 'command' input_file`

Examples Substitute Text

`sed 's/old_text/new_text/' file.txt` This replaces the first occurrence of old_text with new_text in each line of file.txt.

Delete Lines

`sed '3d' file.txt` This deletes the third line from file.txt.

Print Specific Lines

`sed -n '1,5p' file.txt` This prints lines 1 to 5 from file.txt. The -n option suppresses automatic printing of lines.

less

Definition less is a file viewer for Unix-like systems that allows users to view (but not modify) the contents of a file one screen at a time. It supports both forward and backward navigation.

Usage/Formula The basic syntax for less is: `less file_name`

Examples View a File `less file.txt` This opens `file.txt` for viewing.

Search Within the File Press `/` followed by the search term after opening the file:

`/search_term`

`>`

Definition: Redirects output to a file, overwriting the file if it exists.

Usage: `command > output_file` Example: `echo "Hello, World!" > hello.txt`

`>>`

Definition: Appends output to a file without overwriting it.

Usage: `command >> output_file` Example: `echo "Hello again!" >> hello.txt`

`|`

Definition: Pipes the output of one command as input to another command.

Usage: `command1 | command2` Example: `cat file.txt | grep "search_term"`