

## Notes 8

Explain how to use each of the following commands:

awk

Definition:

AWK is a scripting language used for processing and displaying text. Awk can work with a text file or from a standard output.

Usage:

```
awk + option + {awk command} + file to save (optional)
```

Examples:

1. Print the first column of every line of a file: `awk '{print $1}' ~/Documents/Csv/cars.csv`
  2. Print Field of /etc/passwd file `awk -F: '{print $1}' /etc/passwd`
  3. Start Printing a file from a given line (exclude the first 2 lines) ``awk 'NR > 3 { print }' /etc/passwd`
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sed

Definition:

SED is a stream editor that performs operations on files and standard output. For instance; it can search, find and replace, insert and deletion. By using SED you can edit files without opening them.

Usage:

```
sed + option + sed script + file
```

Examples:

1. Replace a string in a given file (replace pizza for rice): `sed 's/pizza/rice/' shopping-list.lst`
  2. Replacing only the fourth occurrence per line in a file: `sed 's/pizza/rice/4' shopping-list.lst`
  3. Replacing a string on a range of lines: `sed '1,3 s/pizza/rice/' shopping-list.lst`
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less

Definition:

The less command shows a file's content by page and one at a time.

Usage:

```
less + option + filename
```

## Examples:

1. Search for a pattern using less: `file | less -p "fail"`
  2. Displaying line number: `file | less -N`
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>

## Definition:

To redirect the output of a command to a file. Essentially saving the output of a command to a file.

## Usage:

`Command output + > + file`

## Example:

1. Save the output of a command to a file: `ls -lA ~ > all-files-in-home.txt`
  2. Save the error generated by a command to a file: `ls -lA downloads/ 2> error-of-ls`
  3. Save the error to a file and success to another: `ls -lA download/ Pictures > success.txt  
2> error.txt`
- 

>>

## Definition:

To append(add) the output of a command to a file.

## Usage:

`command output + >> + file`

## Example:

1. `ls -la >> allmyfiles.lst`
  2. `cat file4 >> file2.txt`
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|

## Definition:

The pipe allows you to redirect the standard output of a command to the standard input to another.

## Usage:

`command_1 + | + command_2 + | + command_3 + | + ... + | + command_N`

## Example:

1. Use grep to look for a string in a particular man page: `man ls | grep "human-readable"`
  2. Display only the options of any command from its man page: `man ls | grep "^[[:space:]]* [[:punct]]"`
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