

# The cat command

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This command is used for displaying content inside of a file the formula it uses is `cat + option + files` to display and two examples of it are: `cat games.txt` displays what is the content inside of `games.txt` `cat -n chips.pdf` displays the content of `chips.pdf` with line numbers

## The tac command

This command is used for displaying files in reverse order the formula it uses is `tac+ option+ files` to display examples are: `tac list.txt` prints the content of `list` in reverse order

## the head command

this command is used for displaying top lines of a file the formula is `head+option+files` and examples are: `head games.py` displays the first 10 lines of `games` `head -1 chips.py` displays the first line of `chips`

## The tail command

the tail command is used to display the last number of lines in a file the formula it uses is `tail+option+file` and examples are: `tail games.csv` prints the last 10 lines of `games.csv` `tail -3 games.csv` prints the last 3 lines of `games.csv`

## The cut command

the cut command is used to extract a specific section of each line of the file and display it the formula it uses is `cut+option+file` and examples are: `cut -d ':' -f1 /etc/passwd` cuts the first field and uses `:` as the delimiter `cut -d ':' -f1 --output-delimited="-" /etc/passwd` prints all the users and changes the output delimited to `-`

## The Paste command

the paste command is used for joining files horizontally in columns the formula is `paste + option + file` and the examples are: `paste games.csv chips.txt` merges both files `paste -d "?" games.csv chips.txt` merges both files and changes the delimiter to `?`

## The Sort command

The sort command is used for sorting files the formula it uses is `sort + option + file` examples are: `sort game.csv` sorts the file contents in alphabetical order `sort -r games.csv` sorts the file contents in reverse order

## The wc command

the wc command is used for printing the number of lines the formula used is `wc+option+files` and examples are: `wc -w games.csv` prints the number of words in the file `wc -m games.csv` prints the number of characters in the file

## The tr command

the `tr` command is used for translating or deleting characters from standard output the formula standard | `tr + option + set + set` and examples are: `cat chips.txt | tr '.' ';'` changes periods inside of a file with semi colons `cat games.csv | tr -s "[:lower:]" ","` translates each repeated lower case letter inside games.csv with commas

## The diff command

the `diff` command compares files and displays the differences the formula `diff + option+ file1+file2` and examples are: `diff shoes.txt games.csv` shows the differences between shoes and games contents `diff -q shoes.txt cereal.txt` report only when files differ

## the grep command

`grep` is used to search text in a given file the formula used is `grep + option + search criteria + files` and examples are: `grep 'shoes' ~/Downloads/nike.txt` searches for the word shoes inside of nike `grep -i 'word' ~/cis106` searches for the word regardless of case sensitivity

## The awk command

`awk` is a scripting language used for processing and displaying text adn can work with a text file or from standard output the formula for the `awk` command is `awk + option + awk command + file +file to save(depends)` and Examples are: `awk '{print $3}' vibes.txt` print the third column of every line of vibes `awk -F: '{print $7}' /etc/passwd` prints the seventh field of the field `awk 'NR > 5 { print }' /etc/passwd` starting printing a file after the 4th line `awk '{print length($0)}' /etc/passwd` prints the length of a record `awk -F: '{print toupper($1)}' /etc/passwd` prints users in your computer in the uppercase

## The sed command

`Sed` is a stream editore that performs operations on files and standard output the formula is `sed options + sed script + file` and examples are: `sed 's/onions/peppers' grocerystock.csv` changes onions for peppers inside of grocerystock `sed '1d' store.txt` removes the first line in store `sed 'G;G' concert.txt` places two blank lines after each line in concert `sed 's/sun/clouds/g' earth.txt` replaces all occurences of sun with clouds `sed '/abc/d' alphabet.txt` deletes the line that matches the pattern