# Notes 7

### CAT

- Definition:
  - Displays the contents of files and concatenates them.
- Usage:

```
• cat [options] [file(s)]
```

- Examples:
  - Display the content of a file:
    - cat file.txt
  - Concatenate multiple files:
    - cat file1.txt file2.txt > merged.txt
  - Display line numbers:
    - cat -n file.txt

### TAC

- Definition:
  - Displays file contents in reverse order (last line first).
- Usage:

```
• tac [options] [file(s)]
```

- Examples:
  - Display a file in reverse:
    - tac file.txt
  - Combine multiple files in reverse:
    - tac file1.txt file2.txt

### **HEAD**

- Definition:
  - Displays the first lines of a file.
- Usage:
  - head [options] [file]
- Examples:
  - Display the first 10 lines:
    - head file.txt
  - Display the first 5 lines:
    - head -n 5 file.txt

### **TAIL**

- Definition:
  - Displays the last lines of a file.

- Usage:
  - tail [options] [file]
- Examples:
  - Display the last 10 lines:
    - tail file.txt
  - Display the last 5 lines:
    - tail -n 5 file.txt
  - Display the last 50 bytes:
    - tail -c 50 file.txt

### **CUT**

- Definition:
  - Extracts specific parts of each line of a file.
- Usage:
  - cut [options] [file]
- Examples:
  - Extract the first column:
    - cut -f1 file.txt
  - Extract characters 1 to 5:
    - cut -c1-5 file.txt
  - Extract fields separated by a delimiter:
    - cut -d':' -f1 /etc/passwd

# **SORT**

- Definition:
  - Sorts the contents of a file.
- Usage:
  - sort [options] [file]
- Examples:
  - Sort alphabetically:
    - sort file.txt
  - Sort numerically:
    - sort -n file.txt
  - Remove duplicates while sorting:
    - sort -u file.txt

## WC

- Definition:
  - Counts lines, words, and characters in a file.
- Usage:
  - wc [options] [file]
- Examples:

- Count lines, words, and characters:
  - wc file.txt
- Count only words:
  - wc -w file.txt
- Count only lines:
  - wc -l file.txt

### TR

- Definition:
  - Translates or deletes characters.
- Usage:
  - tr [options] set1 set2
- Examples:
  - Replace spaces with tabs:
    - tr ' ' '\t' < file.txt</pre>
  - Delete vowels:
    - tr -d 'aeiou' < file.txt
  - Convert lowercase to uppercase:
    - tr 'a-z' 'A-Z' < file.txt

### **DIFF**

- Definition:
  - Compares two files and shows the differences.
- Usage:
  - diff [options] file1 file2
- Examples:
  - Compare two files:
    - diff file1.txt file2.txt
  - Display side-by-side differences:
    - diff -y file1.txt file2.txt

# **GREP**

- Definition:
  - Searches for a pattern in a file and displays matching lines.
- Usage:
  - grep [options] pattern [file(s)]
- Examples:
  - Search for a word:
    - grep 'word' file.txt
  - Case-insensitive search:
    - grep -i 'word' file.txt
  - Count occurrences of a word:

- grep -c 'word' file.txt
- Search recursively in a directory:
  - grep -r 'word' directory/