Note 8: Handling Text Files Part 2

Commands cover in lecture:

awk

Definition:

Awk is a scripting language used for processing and displaying text. Awk can work with a text file or form standard output. Awk was created in Bell Labs during the 70s by Alfred Aho, Peter Weinberger, and Brian Kernighan and its name comes from its authors' initials.

Usage:

```
awk+options+(awk command)+file+file to save (optional)
```

Examples:

- Print the first column of every line of a file.
  - `awk '{print $1}' ~/Documents/Csv/cars.csv`
- Print first field of /etc/passwd file
  - `awk -F: '{print $1}' /etc/passwd`
- Print the last field of the /etc/passwd file
  - `awk -F: '{print $NF}' /etc/passwd`
- Print the first and last field of the /etc/passwd
  - `awk -F: '{print $1," = ",$NF}' /etc/passwd

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sed

Definition:

SED is a stream editor that perform 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 options+sed script+file
```

Examples:

- Replacing a string in given file (replace pizza for rice)
  - `sed 's/pizza/rice/' shopping-list.lst`
- Replacing the number of occurrences of a pattern in a file
  - `sed 's/pizza/rice/4' shopping-list.lst`
- Replacing all the occurrence of the pattern in a file
  - `sed 's/pizza/rice/g' shopping-list.lst`

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less

Definition:

File descriptors are positive integers used for identifying open files in a given session.

Usage:

```
Command output+>+file
```

Examples:

- Save the output of a command to a file
    - `ls -lA ~ > all-files-in-home.txt`
- Save the error generated by a command to a file
    - `ls -lA downloads/ 2> error-of-ls`