Filename: comptia-linuxxk0004-5-5-1-manipulating_text
Show Name: CompTIA Linux+ (XK0-004)
Topic: Managing Files and Directories
Episode Name: Manipulating Text
Description: In this episode, Zach and Don explore some of the various commands found in Linux that can be used to modify text. They demonstrate printf, sort, cut, diff, sed and awk while explaining some of the scenarios where each command may be desirable.

Manipulating Text

[?] Let's start simple, how can we get text on our screen?

- `echo`
    - `echo 'Hello world!'`
- `printf`
    - More control/options
    - `printf "Hello.\nWhat's your name?"`

[?] What is an example of what we can do to the text?

- `wc`
    - `-c` Display the byte count.
    - `-m` Display the character count.
    - `-l` Display the newline count.
    - `-w` Display the word count.
    - `wc dracula.txt`

[?] Can we actually change the text?

- `sort`
    - Changes sort order of text output
    - Relies on "columns" which require a delimiter of some sort
    - `-t` Delimiter
    - `-r` Reverse sort order (descending)
    - `-k` Column number
    - `sort -k 2 -t, ./cal-2019.txt`
- `cut`
    - Extracts a column of data from text
    - `-c` Character number to extract
    - `-f` Field number to extract
    - `-d` Delimiter
    - `cut -f 2 -d, ./cal-2019.txt`

[?] If we've modified the file, is there a way to compare it to the original?

- `diff`
    - Compares contents of two files for differences
    - `-i` Ignore case differences.
    - `-w` Ignore spacing differences and tabs.
    - `-c` Display a list of differences with three lines of context.
    - `diff dracula.txt kermit.txt`

[?] Are there more advanced tools available for text manipulation?

- `awk`
    - Matches strings within a set of data
    - Can be used to locate/delete text
    - Uses regular expressions
    - `awk '$1 == "Apache"' software_list.txt`
- `sed`
    - Stream Editor
    - `d` Delete the lines that match a specific pattern or line number.
    - `-n,p` Print only the lines that contain the pattern.
    - `s` Substitute the first occurrence of the string in the file.
    - `s,g` Globally substitute the original string with the replacement string for each occurrence in the file.
    - `sed '/Apache/d' software_list.txt`