LESSON NOTES

Intro to Linux

System Management

1.2.3 Metadata

Lesson Overview:

Students will:

- Understand how data is cataloged in most Linux based operating systems

Guiding Question: How can metadata help us organize, search, and understand digital information?

Suggested Grade Levels: 9 - 12

Technology Needed: None

CompTIA Linux+ XK0-005 Objective:

1.2 - Given a scenario, manage files and directories

- File Metadata
  - stat
  - file

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Metadata

Metadata is an important part of the digital world. It helps us to find, organize, and preserve the information that we need. Metadata is data about data. It's information that describes other information. In the case of the library catalog, the metadata includes the title, author, subject, and other information about each book. This metadata makes it easy to find the books that you're looking for.

Some examples of metadata could be:

- The title, artist, and album of a song in a .mp3 file
- The creation data, file size, and resolution of a digital photo in a .jpg file
- The GPS coordinates of a geotagged image
- The hashtags associated with a social media post
- The keywords used to describe a website

Imagine you're at a library and you want to find a book about dinosaurs. You could walk up and down every aisle, looking at the titles on the spines of the books, but that would take a long time. Instead, you go to the library catalog and search for "dinosaurs." The library catalog is a database that contains information about all the books in the library, including their titles, authors, subjects, and other metadata.

The **`stat`** command is used to print out the status of Linux files, directories, and file systems. Unlike the **`ls`** command, **`stat`** prints out information regarding files, directories, and file systems such as their sizes, blocks, inodes (index nodes), permissions, timestamps for modification, access, change dates, etc.

The **`file`** command is used to determine the file type, ignoring the extension used for file — because a different extension may be used, either accidentally or maliciously.