Intro to Linux



1.2.3 – Metadata



Metadata

Users will learn how data is cataloged in most Linux systems.

- Linux uses metadata to help us understand the differences between files of the same type
 - Some examples include:
 - The title, artist, and album of a song in an .mp3
 - The creation data, file size, and resolution of a photo in a .jpg
 - The GPS coordinates of a geotagged image.
 - The hashtags associated with a social media post.
 - The keywords used to describe a website.



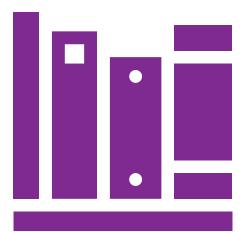




Metadata - Example

Picture yourself in a library looking for a book about dinosaurs, looking up and down every aisle until you finally find it.

- Instead, you could search the catalog for "dinosaurs"
- The catalog is database of information about books containing:
 - Titles
 - Authors
 - Subjects
 - And more







Metadata - Commands

stat

- Prints out the status of Linux files, directories, and file systems
- Includes information regarding files, directories and file systems such as their sizes, blocks, inodes, permissions, and timestamps for modification

```
ubuntu@ip-10-15-86-128:~/Desktop$ ls
README
ubuntu@ip-10-15-86-128:~/Desktop$ stat README
  File: README
                                                           regular file
  Size: 152
                       Blocks: 8
                                         IO Block: 4096
Device: 10301h/66305d Inode: 608906
                                          Links: 1
Access: (0664/-rw-rw-r--) Uid: ( 1000/ ubuntu)
                                                  Gid: ( 1000/
                                                               ubuntu)
Access: 2024-04-10 15:14:11.081250810 +0000
Modify: 2024-04-10 15:14:22.213271235 +0000
Change: 2024-04-10 15:14:22.213271235 +0000
 Birth: -
```





Metadata – Commands

File

- Determines the file type, ignoring the extension used for file
- Different extensions can be used on a file either accidently or maliciously

```
ubuntu@ip-10-15-86-128:~/Desktop$ file README
README: ASCII text
ubuntu@ip-10-15-86-128:~/Desktop$
```

