

Notes 3: Managing Files and Directories

Commands covered in lecture

Mkdir

Definition:

used for creating a single directory or multiple directories.

Usage

```
mkdir + directory_name
```

Example

Create a directory named "docs":

- `mkdir docs` Create multiple directories named "images", "videos", and "music":
- `mkdir images videos music` Create a directory with spaces in the name:
- `mkdir "mkdir "my documents"`

Touch

Definition:

Creates empty files or updates the access and modification timestamps of existing files.

Usage:

```
touch file_name
```

Example:

- Create an empty file named "notes.txt": `touch notes.txt`
- Update the timestamp of an existing file named "report.doc": `touch report.doc`

Rm

Definition:

Removes files or directories.

Usage:

```
rm file_name
```

Example:

- Remove a file named "oldfile.txt": `rm oldfile.txt`

- Remove multiple files named "file1.txt", "file2.txt", and "file3.txt": `rm file1.txt file2.txt file3.txt`
- Forcefully remove a directory named "old_documents" and all its contents: `rm -rf old_documents``

Rmdir

Definition:

Removes empty directories. Usage: `rmdir directory_name`

Example:

- Remove an empty directory named "temp": `rmdir temp`
- Remove multiple empty directories named "dir1", "dir2", and "dir3": `rmdir dir1 dir2 dir3`
- Remove a directory named "empty_folder" with a space in its `rmdir "empty folder"`

Mv

Definition:

Moves or renames files and directories.

Usage:

```
mv source destination
```

Example:

- Move a file named "document.txt" to the "documents" directory: `mv document.txt documents/`
- Rename a file named "oldfile.txt" to "newfile.txt": `mv oldfile.txt newfile.txt`
- Move all text files from the current directory to a directory named "text_files": `mv *.txt text_files/`

Cp

Definition:

Copies files and directories.

Usage:

```
cp source destination
```

Example:

- Copy a file named "image.jpg" to a backup directory: `cp image.jpg backup/`
- Copy a directory named "photos" and all its contents to a backup location: `cp -r photos/ backup/`
- Copy multiple files named "file1.txt", "file2.txt", and "file3.txt" to a directory named "archive": `cp file1.txt file2.txt file3.txt archive/`

File

Definition:

Determines the type of a file.

Usage:

```
file file_name
```

Example:

- Determine the type of a file named "image.png": `file image.png`
- Check the type of a binary executable named "program": `file program`
- Identify the type of a compressed file named "archive.zip": `file archive.zip`

Pdftinfo

Definition:

Provides information and metadata from PDF files.

Usage:

```
pdftinfo file_name.pdf
```

Example:

Get information about a PDF file named "document.pdf": `pdftinfo document.pdf` Check the number of pages in a PDF file named "presentation.pdf": `pdftinfo presentation.pdf | grep Pages`

Mediainfo

Definition:

Provides technical and tag information about multimedia files. Usage: `mediainfo file_name`

Example:

- Get technical details about a video file named "movie.mp4" `mediainfo movie.mp4`
- Check the duration of an audio file named "song.mp3": `mediainfo song.mp3 | grep Duration`

Exiv2

Definition:

Manipulates image metadata.

Usage:

```
exiv2 file_name
```

Example:

*View metadata information of an image file named "photo.jpg": `exiv2 photo.jpg`

- Extract the camera model from an image file named "pic.jpeg": `exiv2 -g CameraModel pic.jpeg`
- Remove all metadata from an image file named "image.png": `exiv2 rm image.png`

Exiftool

Definition:

Reads, writes, and edits metadata in various file types.

Usage:

`exiftool file_name`

Example:

- Display all metadata information of an image file named "photo.jpg": `exiftool photo.jpg`
- Edit the description tag of an image file named "pic.jpeg": `exiftool -Description="New description" pic.jpeg`
- Extract GPS coordinates from an image file named "image.png": `exiftool -GPSLatitude -GPSLongitude image.png`