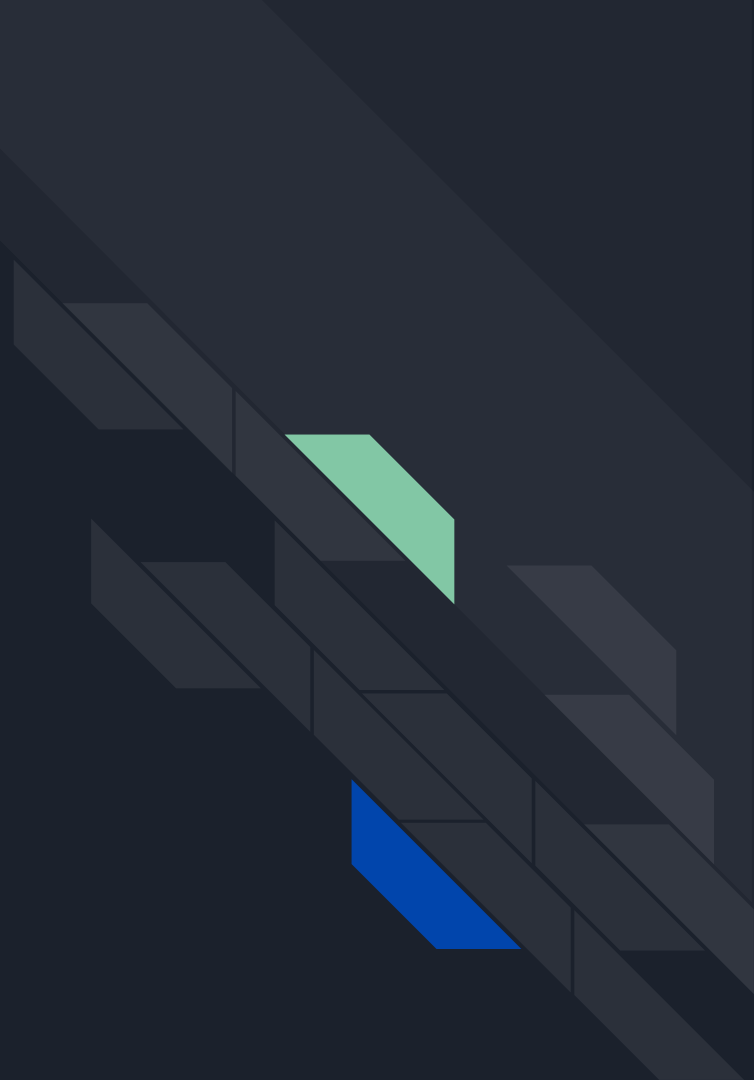


Day 2: Command-line Basics (part 1)

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> whoami

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- Software Engineer
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> different types of UIs (User Interfaces)

- **UI:** a way for a user to interact with a software application or digital device.
- This could take various forms:
 - GUI (Graphical User Interface)
 - MDI (Menu Driven Interface)
 - CLI (Command Line Interface)



> so why learn the command-line?

- Efficiency: You can accomplish more in fewer steps
- More flexibility and control
- Automation (through scripting)
- Remote management
- Career opportunities: Sys admin, DevOps, Software dev, Cybersec, Data analysis, etc.



> command-line foundations ...

\$ man <command_name> :

- Gives us the manual pages for the command (documentation)

On switches and command-line arguments:

- **Command-line arguments** are pieces of information required to complete the intended task
 - eg. *cp file1.txt destination/directory/*
 - 'file1.txt' and 'destination/directory/' are required by cp command
- **Switches** are additional modifiers or options that can be added to a command to either change its behavior or provide additional functionality
 - eg. *ls -a* : '-a ' extends the ls command to list even hidden files
 - Short-form: -a (single hyphen), long-form: --all (2 hyphens)



> some basic commands

File system navigation:

- **pwd** : Print the current working directory
- **ls** : List the contents of the current directory
- **cd** : Change directory

Finding stuff:

- **locate** : Search for files and directories in a pre-built database
- **whereis** : Get the location of a binary file (executable)
- **find** : The most flexible and powerful command for finding files
- **grep** : A filter to search for keywords

Text editing:

- **nano** : basic command-line text editor



> some basic commands (cont'd)

File & directory operations :

- **mkdir** : create a new empty directory
- **rmdir** : delete an empty directory
- **touch** : create an empty file
- **file** : view the type of file
- **rm** : delete/remove files (and directories)
- **cp** : copy files and directories
- **mv** : move or rename files and directories
- **cat** : concatenate or display the content of files
- **more, less** : view file content page by page
- **head** : display the beginning of a file
- **tail** : display the end of a file



> some basic commands (cont'd)

Getting system information:

- `uname` : get system information



Q&A