Notes 3

What is a graphical user interface (GUI)?

A graphical user interface is a set of programs that allows a user to interact with the computer system via icons, windows, and various other visual elements

What is a desktop environment?

A desktop environment is an implementation of the desktop metaphor made of a bundle of programs running on top of a computer operating system, which shares a common GUI, sometimes described as a graphical shell.

What is the command line interface (CLI)?

CLI a text based user interface used to interact with the operating system by typing commands into a program called a terminal.

How do I access the command line interface (CLI)?

You can use the CLI through the search bar in linux, there will be one, and you type terminal, or tilix.

What is a virtual console?

A virtual console is a shell prompt in a non-graphical environment, accessed from the physical machine, not remotely. Multiple virtual consoles can be accessed simultaneously.

What is a terminal emulator?

A software application that provides a text based interface to the operating system, mimicking the functionality of old fashioned physical computer terminals.

What is bash?

Bash is a default command line interpreter and scripting language for most Linux distributions and is the primary way users interact with the operating system through a terminal.

What is the shell prompt?

A shell prompt is the main way to interact with a command line only interface. It displays the user you are logged in as, the server you are logged into followed by the current directory, or folder you are in.

clear

- **Definition**:
    - clears the screen
- **Usage**:
    - `clear`

- **Example**:
  - How to clear the screen:
    - `clear`

echo

- **Definition:**
  - Displays text on the screen
- **Usage:**
  - `echo` + `option` + `string to display`
- **Example:**
  - How to display a line of text:
    - `echo "hello"`
  - How to display 2 lines of text
    - `echo -e "hello\nworld"`

date

- **Definition:**
  - Used to display the current system date and time
- **Usage:**
  - type `date` in the terminal
- **Example:**
  - How to display current date:
    - `date`

free

- **Defintion:**
  - Provides a summary of the system's memory and swap usage.
- **Usage:**
  - `free`
- **Example:**
  - How to display a summary of the syetem's memory and swap usage:
    - `free`

uname

- **Definition:**
  - To display basic system information about the kernel and hardware platform
- **Usage:**
  - `man uname` to open up the manual
- **Example:**
  - How to display all system information:
    - `uname` + `-a`
  - Display the kernel release and machine architecture:
    - `uname` + `-rm`

history

- **Definition:**
    - A tool for viewing, searching, and re-executing previous commands in your shell session.
- **Usage:**
    - `history`
- **Example:**
    - How to look for previous commands used in the terminal:
        - `history`

man

- **Definition:**
    - The standard tool for accessing detailed system documentation for commands, utilities, and functions directly in the Linux terminal.
- **Usage**
    - To pop up the man manual in the terminal type:
        - `man man`
    - **Example**
        - How to view documentation for the ls command (list directory contents):
            - `man ls`
        - To find all man pages related to "network":
            - `man -k network`

tldr

- **Definition:**
    - A command in Linux provides concise, community-sourced examples for common command-line utilities.
- **Usage:**
    - Get help on the tldr command itself
        - `tldr tldr`
- **Exmaple:**
    - How to list directory contents:
        - `tldr ls`
    - Archiving utility. Often combined with a compression method, such as gzip or bzip2:
        - `tldr tar`

cheat

- **Definition:**
    - Provides quick usage examples for a wide variety of commands.
- **Usage:**
    - How to look for options in cheat:
        - `cheat -l`
- **Example:**
    - Go to the previous directory:
        - `cd -`

- List files and hidden files in detail:
  - `ls -al`

hostname

- **Definition:**
  - A command in Linux is used to display or set the system's DNS name, hostname, or NIS domain name.
- **Usage:**
  - `hostname`
- **Example:**
  - Display the short hostname:
    - `hostname -s`
  - Display the IP address:
    - `hostname -i`

df

- **Definition**
  - To display the amount of available and used disk space for file systems.
- **Usage:**
  - `df`
- **Example:**
  - Displays disk space usage in a human-readable format:
    - `df -h`
  - Combines human-readable format with the file system type for comprehensive output:
    - `df -hT`

du

- **Definition:**
  - This command is used to display the disk space used by files and directories
- **Usage:**
  - `du`
- **Example:**
  - Displays sizes in a format that is easy to read:
    - `du` + `-h` + `/var`
  - Combines summarize and human-readable for a single, easy-to-read total size:
    - `du` + `-sh` + `/var`

figlet

- **Definition:**
  - A command that generates large text banners as ASCII art form ordinary text input.
- **Usage:**
  - `figlet`
- **Example:**
  - `figlet` + `"Hello World"`

- figlet + -f + script + "Cursive Script"