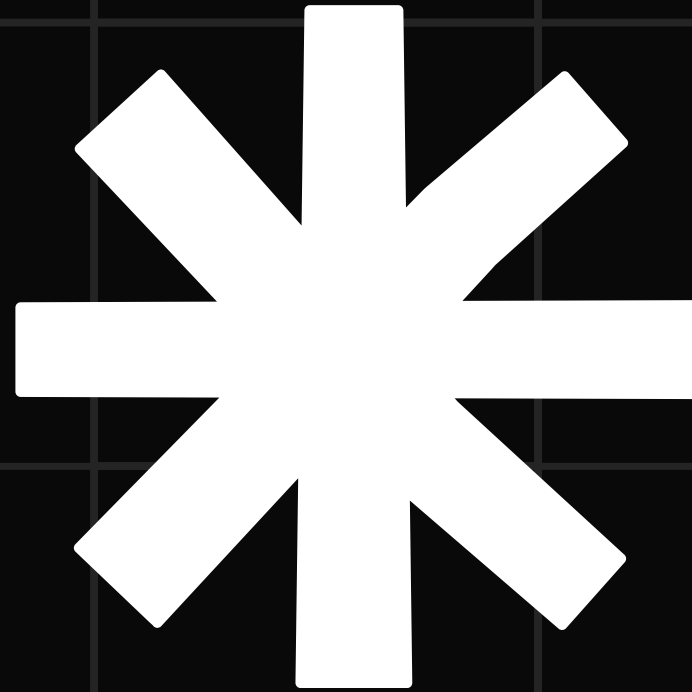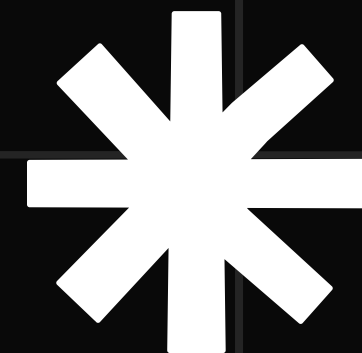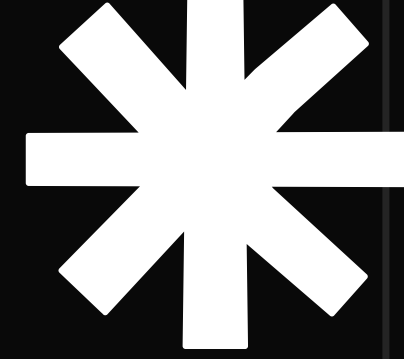What is....

LINUX

Presented by MIGUEL RMZ

Linux is an open-source, Unix-like operating system kernel that serves as the foundation for a wide range of operating systems, commonly referred to as Linux distributions or distros. Initially developed by Linus Torvalds in 1991, Linux is known for its robustness, flexibility, and security, making it a popular choice for servers, desktops, and embedded systems.

Open Source and Community-Driven
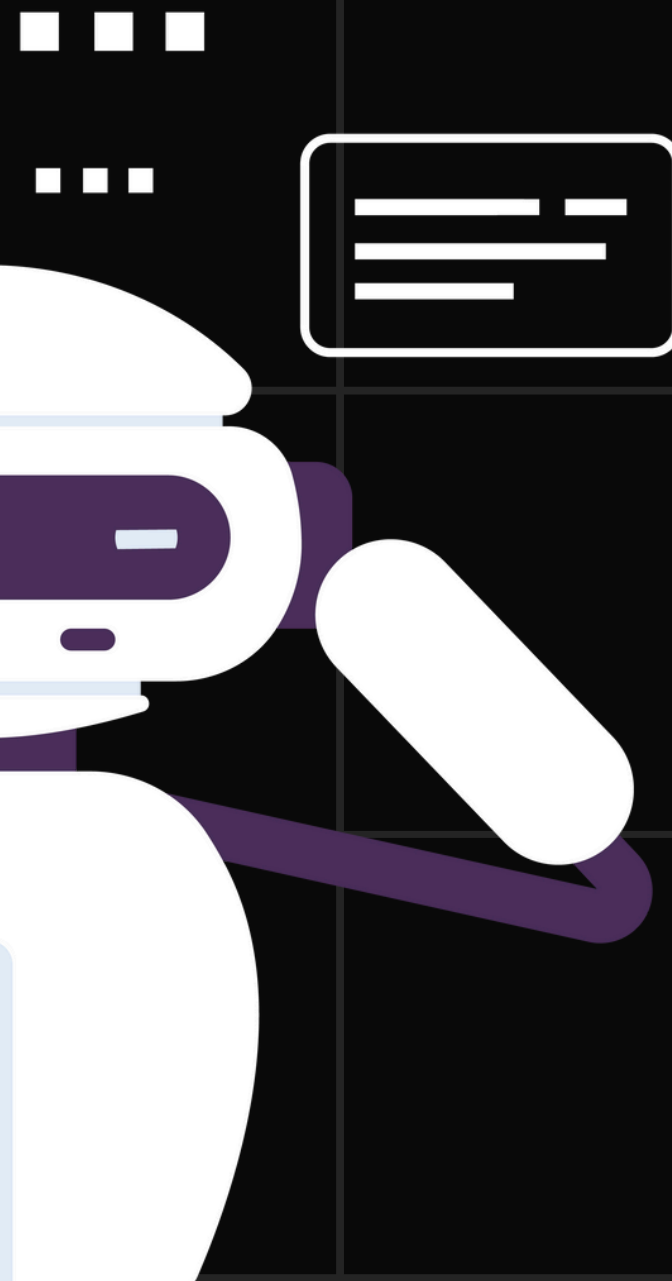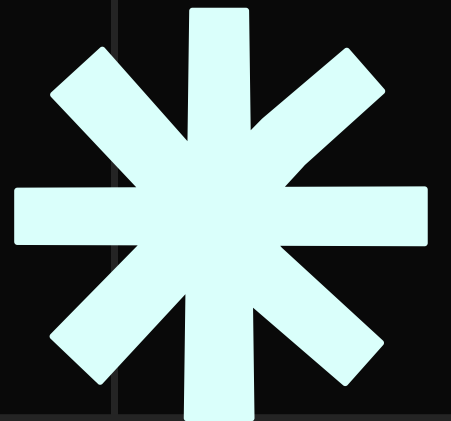
Open Source and Community-Driven
One of Linux's defining features is its open-source nature. The Linux kernel, along with most of its associated software, is released under the GNU General Public License (GPL). This allows anyone to view, modify, and distribute the source code. The open-source model fosters a collaborative environment where developers and users worldwide contribute to and improve the system.
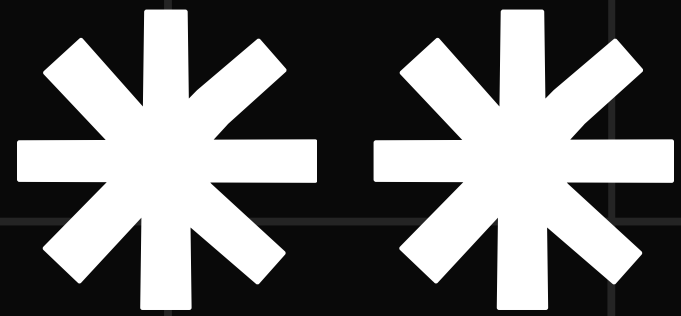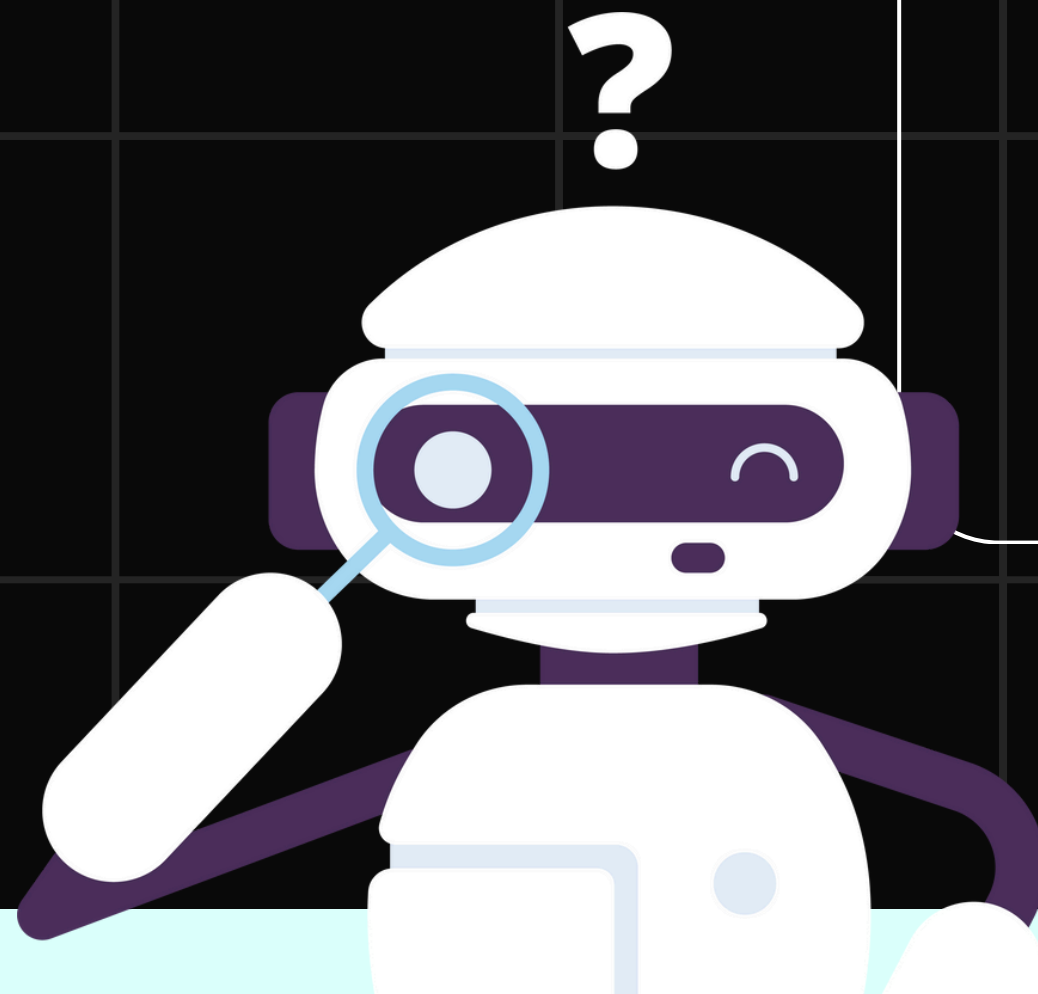
Kernel and Distributions

The Linux kernel is the core component of a Linux operating system, managing hardware resources and providing essential system functions. Various distributions package the Linux kernel with additional software, utilities, and a graphical user interface (GUI) to create a complete operating system. Popular distributions include:

- Ubuntu: Known for its user-friendly interface and extensive community support.
- Fedora: Focuses on cutting-edge features and innovation.
- Debian: Renowned for its stability and extensive repository of software.
- CentOS: Provides enterprise-level stability and performance, often used in server environments.
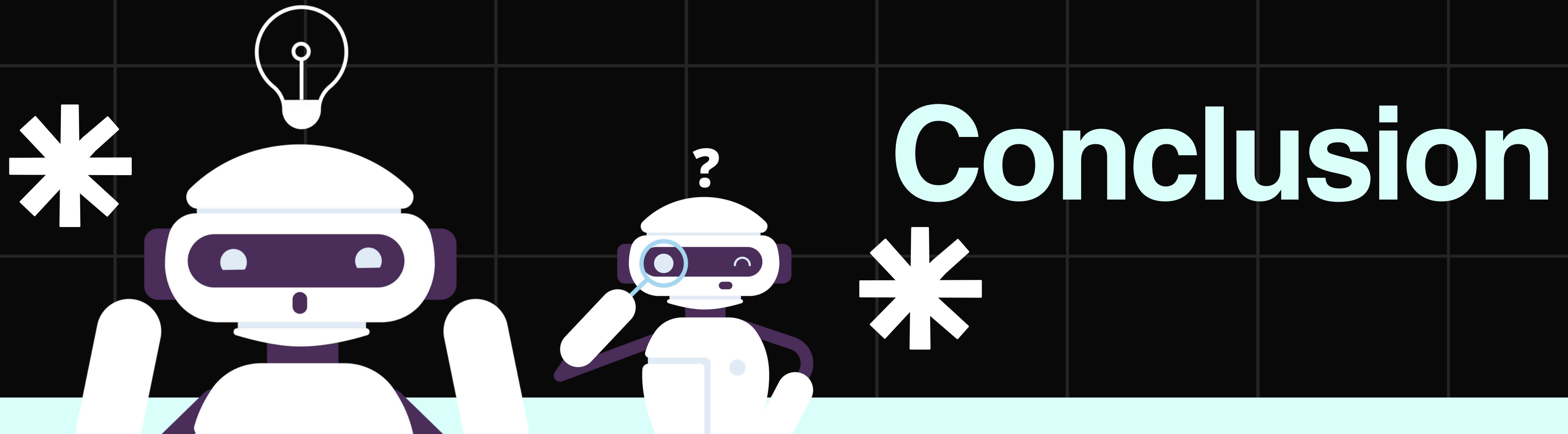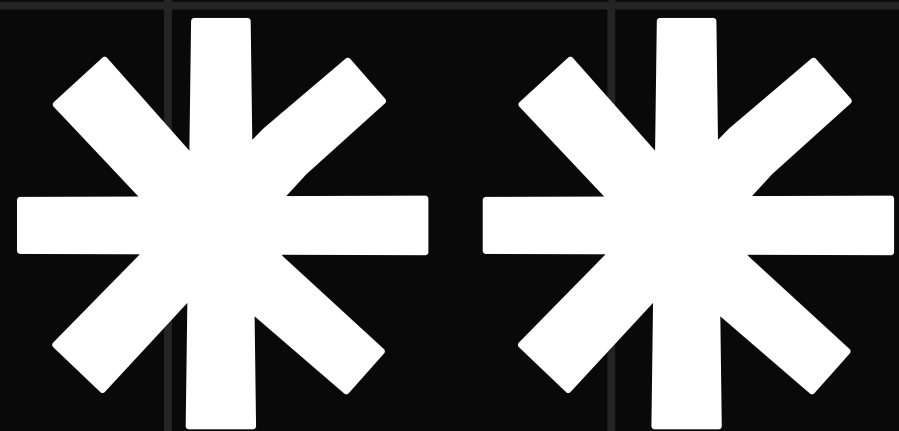
Command-Line Interface (CLI)

Linux is renowned for its powerful command-line interface (CLI). The terminal provides users with direct access to the operating system's functionality through commands. Common tasks performed in the terminal include file management, system monitoring, and software installation. Some essential commands include:

- ls – Lists files and directories in the current directory.
- cd – Changes the current directory.
- cp – Copies files or directories.
- mv – Moves or renames files or directories.
- rm – Removes files or directories.
- grep – Searches for text patterns within files.

Linux's open-source nature, flexibility, and robust design make it a powerful operating system suitable for a wide range of applications. Its strong community support and extensive customization options contribute to its continued popularity and relevance across various domains, from personal computing to enterprise-level deployments.

Conclusion

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Thankyou