ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

DAY – 3

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LINUX

The Linux Operating System is a type of operating system that is similar to Unix, and it is built upon the Linux Kernel. The Linux Kernel is like the brain of the operating system because it manages how the computer interacts with its hardware and resources. It makes sure everything works smoothly and efficiently. But the Linux Kernel alone is not enough to make a complete operating system.

What is Linux?

Linux is based on the UNIX operating system. UNIX is a powerful, multi-user, multitasking operating system originally developed in the 1970s at AT&T Bell Labs. It laid the foundation for many modern operating systems, including Linux.

While UNIX is a licensed operating system (meaning you need to purchase a license to use it), Linux is free and open-source, making it accessible to everyone. Anyone can inspect and modify the source code, which enables global collaboration and innovation. Its efficient performance and strong security model make it suitable for a wide variety of devices and industries.

Since the beginning, Linux has grown into a dependable and safe OS that is used in an array of gadgets, including PCs, cell phones, and huge supercomputers. It is well-known for being cost-effective, which implies that employing it doesn't cost a lot, and efficient, which indicates it can complete a lot of jobs quickly.

Install Ubuntu Desktop

1. Download an Ubuntu image
2. Create a bootable USB stick
3. Boot from USB flash drive
4. Installation setup
5. Type of installation
6. Create Your Login Details
7. Choose your Location
8. Ready to install
9. Complete the Installation

Linux Commands

Linux commands are essential tools for interacting with the operating system through the terminal. They allow users to perform a wide range of tasks, from basic file management to

advanced system administration. Here are some of the most commonly used Linux commands along with their examples:

- sudo apt update
- sudo apt upgrade

Directory Commands

- **pwd**: Displays the current working directory.
  `pwd`
- **mkdir**: Creates a new directory.
  `mkdir new_directory`
- **rmdir**: Deletes an empty directory.
  `rmdir old_directory`
- **ls**: Lists the contents of a directory.
  `ls`
- **cd**: Changes the current directory.
  `cd /path/to/directory`

File Commands

- **touch**: Creates an empty file.
  `touch newfile.txt`
- **cat**: Displays the content of a file.
  `cat file.txt`
- **rm**: Removes a file.
  `rm file.txt`
- **cp**: Copies a file or directory.
  `cp source.txt destination.txt`
- **mv**: Moves or renames a file or directory.
  `mv oldname.txt newname.txt`