Training Report – Day 3

Topic Covered Today:

- Installation of Ubuntu Linux (steps and requirements)
- Overview of Linux operating system and its importance in development
- Introduction to Linux terminal and shell environment
- Basic Linux commands for file handling, navigation, and system updates

Key Learning:

Today I gained hands-on experience with **Ubuntu Linux**, which is one of the most widely used operating systems in AI/ML development, server management, and cloud computing. I understood the **installation process**, including:

- Downloading the Ubuntu ISO file
- Creating a bootable USB drive or setting up a virtual machine
- Installing Ubuntu by configuring partitions, language, timezone, and user credentials
- Completing post-installation updates to keep the system secure and efficient

After installation, I was introduced to the **Linux environment**. Unlike Windows, Linux relies heavily on the **command line interface (CLI)**, which provides developers more control and efficiency in executing tasks.

Some of the **important Linux commands** I learned and practiced are:

- **Navigation & Directories:**
  - `pwd` – shows the present working directory
  - `ls` – lists files and directories in the current folder
  - `cd foldername` – changes directory
  - `mkdir foldername` – creates a new folder
  - `rmdir foldername` – removes a folder
- **File Management:**
  - `touch filename` – creates a new empty file
  - `nano filename` – opens a text editor in terminal to edit files
  - `cp file1 file2` – copies a file
  - `mv file1 file2` – moves or renames a file
  - `rm filename` – deletes a file
- **System & Software Management:**
  - `sudo apt update` – updates the package list

- `sudo apt upgrade` – upgrades installed software
- `clear` – clears the terminal screen

I also learned the concept of **sudo (superuser do)**, which gives administrative privileges to run system-level commands.

These commands will be very useful for managing datasets, installing AI/ML libraries, and handling projects in future training.

Activities / Assignments:

- Installed **Ubuntu Linux** on a system / virtual machine.
- Explored the **GUI and CLI differences** in Ubuntu.
- Practiced **basic commands** for navigation, file creation, and system updates.
- Edited a text file using **nano editor** and saved changes from the terminal.
- Prepared a list of at least **20 commonly used Linux commands** with examples for practice.
- Completed the **system update and upgrade** process to make Ubuntu ready for future development work.

Personal Reflection for Day 3:

Today's training helped me understand the importance of **Linux in AI/ML and professional development**. Initially, the installation process felt technical, but once I understood the steps, I realized how straightforward it is. Working with the terminal was slightly challenging in the beginning, but after practicing the commands, I felt more confident and comfortable.

I also realized that **Linux provides more power and flexibility** compared to other operating systems. It allows direct control over system resources, making it the first choice for developers, data scientists, and system administrators.

The session boosted my confidence in using Ubuntu Linux and gave me clarity on why it is a preferred platform for AI/ML, DevOps, and cloud environments. I look forward to learning more advanced commands, shell scripting, and how Linux integrates with Python for AI/ML projects in upcoming sessions