

# ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

DAY – 3

25 June 2025

## What is Linux?

Linux is a free and open-source operating system based on Unix. The term "Linux" often refers to GNU + Linux, combining the Linux kernel (developed by Linus Torvalds) with GNU tools.

Originally inspired by Unix, Linux has grown into a powerful OS used in servers, desktops, mobile devices, embedded systems, and more. Its flexibility, security, and open-source nature make it popular across various applications.

## Use of Linux Commands

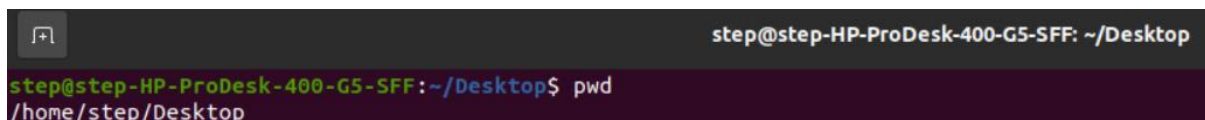
Linux commands are basic tools used to interact with the Linux operating system through the command line. They help users perform various tasks, such as viewing, creating, and managing files and directories.

Linux is widely used on servers, desktops, and even smartphones. It offers many command-line tools that can handle almost any task on the system.

## Linux Commands

### pwd command in Linux

The pwd command is mostly used to print the current working directory on your terminal. It is also one of the most commonly used commands.

A terminal window screenshot with a dark background. The title bar at the top right says 'step@step-HP-ProDesk-400-G5-SFF: ~/Desktop'. The terminal shows a prompt 'step@step-HP-ProDesk-400-G5-SFF:~/Desktop\$' followed by the command 'pwd'. The output of the command is '/home/step/Desktop'.

### rmdir command in Linux

The rmdir command is used to delete permanently an empty directory. To perform this command the user running this command must be having **sudo** privileges in the parent directory.

### mkdir command in Linux

This mkdir command allows you to create fresh directories in the terminal itself. The default syntax is **mkdir <directory name>** and the new directory will be created.

```
step@step-HP-ProDesk-400-G5-SFF:~/Desktop$ mkdir r
step@step-HP-ProDesk-400-G5-SFF:~/Desktop$ ls
r
```

### **cp command in Linux**

The `cp` command of Linux is equivalent to copy-paste and cut-paste in Windows.

### **cd command in Linux**

The `cd` command is used to navigate between directories. It requires either the full path or the directory name, depending on your current working directory.

```
step@step-HP-ProDesk-400-G5-SFF:~$ cd Desktop
step@step-HP-ProDesk-400-G5-SFF:~/Desktop$ pwd
/home/step/Desktop
```

### **mv command in Linux**

The `mv` command is generally used for renaming the files in Linux.

### **clear command in Linux**

The `clear` command is a standard command to clear the terminal screen.

```
step@step-HP-ProDesk-400-G5-SFF:~/Desktop$ pwd
/home/step/Desktop
step@step-HP-ProDesk-400-G5-SFF:~/Desktop$ clear
```