

Linux Basics - EduVerse Course

What is Linux?

Linux is a free, open-source operating system used in servers, security, development, and more.

Why Learn Linux?

- Powers 90% of cloud servers
- Used in cybersecurity & programming
- Helps understand real computer systems

Popular Linux Distributions (Distros):

- Ubuntu: Beginner-friendly desktop
- Kali Linux: For cybersecurity & hacking
- Debian: Stable, used on servers
- Arch Linux: Advanced users, full control
- Linux Mint: Good for Windows users

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Essential Linux Commands

`pwd` - Print current directory

`ls` - List files and folders

`cd foldername` - Change directory

`mkdir name` - Make a new directory

`rm filename` - Delete file

`touch file.txt` - Create a new file

`cp file1 file2` - Copy file1 to file2

`mv file1 folder/` - Move file to folder

`nano file.txt` - Edit file in terminal

`sudo` - Run as admin

`apt update` - Update package list

`apt install app` - Install apps (like nmap, python3)

Pro Tip:

Use '&&' to combine commands, use '|' to pipe output.

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Shell Scripts

Create a file called hello.sh:

```
#!/bin/bash
```

```
echo "Hello, EduVerse!"
```

Make it executable and run:

```
chmod +x hello.sh
```

```
./hello.sh
```

File Permissions

Use 'ls -l' to view permissions:

```
-rwxr-xr-- 1 user user 1234 file.sh
```

```
chmod +x file.sh - Add execute
```

```
chmod 755 file.sh - rwxr-xr-x
```

User Types:

- Owner

- Group

- Others

Learn More:

- Customize terminal with .bashrc

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- Install tools with apt
- Use 'man command' for help pages