Mastering Linux System Admin

Mastering Linux is a flagship, industry-oriented learning initiative meticulously crafted by **OpenPath**. This program is specifically designed to empower aspiring IT professionals with an in-depth understanding and practical mastery of **Linux Operating Systems** and essential enterprise-grade open-source technologies. Our comprehensive curriculum goes beyond theoretical knowledge, focusing on real-world applications and skill development.

This affordable and intensive program provides a robust career foundation for students pursuing **B.Tech, BCA, MCA, and Diploma degrees.** It meticulously prepares them for high-demand roles in critical IT sectors, including **System Administration, DevOps engineering, and IT Infrastructure Management.** Graduates emerge with the confidence and capabilities to contribute effectively from day one in a professional environment.

What Makes It Different?

Real Industrial Projects

Gain authentic, hands-on exposure to enterprise Linux environments through projects that simulate real-world challenges and scenarios.

Career-Ready Curriculum

Our course content is meticulously designed and curated by active industry experts, ensuring relevance to current market demands and future trends.

Applied Learning

The program prioritizes practical command-line mastery and infrastructure deployment skills, crucial for success in modern IT roles.

Prerequisites

- Basic networking knowledge is recommended to ensure a smooth learning curve.
- New to IT? No problem — we include a free foundational networking course to help you start confidently and bridge any knowledge gaps.

Program Details

Duration	1.3 Months (Approx. 6 Weeks)
Course Fee	₹15,000 (All-Inclusive)
Mode	Hybrid (Online + Practical Labs)
Certification	"Mastering Linux – Industry Ready Certification" by OpenPath

Comprehensive Course Curriculum

Our "Mastering Linux System Admin" program offers a meticulously structured curriculum designed to build a strong foundation and advanced skills in Linux and open-source technologies. From fundamental concepts to real-world automation, each module is crafted to ensure practical mastery and career readiness.

01

Linux Fundamentals & Editors

Begin your journey with the history, evolution, and ecosystem of Linux. Understand proprietary vs. open-source, the role of a system administrator, and master essential text editing with VI/VIM. Set up your virtual lab environment using VMware, VirtualBox, or Oracle VM and learn various Linux installation methods.

02

Directory Structure & Remote Access

Explore the Linux directory tree, differentiate between superuser and standard users, and gain proficiency with remote connectivity tools like Putty, MobaXterm, and VNC. Master command-line interface (CLI) operations and essential file and directory management commands.

03

Linux Boot Process

Unravel the intricate Linux boot sequence from power-on to login. Understand components like BIOS/UEFI, GRUB, Kernel, and Systemd. Learn about boot targets, systemctl, recovery modes, and how to secure your boot loader with GRUB password protection.

04

Mounting File Systems

Dive deep into file systems (ext3, ext4, xfs), understanding concepts of mounting, disk partitioning, and formatting. Learn to configure persistent mounts, utilize journaling, manage fstab, and explore mount binding techniques.

05

Linux Networking

Master IP addressing, subnetting, DNS, and gateway basics. Configure static and dynamic IP addresses, understand routing tables, and use network management tools like `ip`, `nmcli`, `netstat`, and `traceroute`. Explore real-world implementations of Linux as a router.

06

User & Group Management

Learn to distinguish between system and application users. Gain hands-on experience with user and group management commands such as `useradd`, `passwd`, and `usermod`. Understand file ownership, permissions, and how to configure user environments.

07

Advanced Linux Permissions

Explore file and directory permissions in detail, including octal and symbolic modes. Understand UMASK, default permissions, and special bits (SUID, SGID, Sticky Bit). Learn secure privilege escalation using `sudo` and implement Access Control Lists (ACLs) for granular control.

08

Scheduling & Automation

Automate routine tasks with Linux scheduling tools like `cron`, `anacron`, and `at`. Implement best practices for backup and monitoring job automation, understand system maintenance scheduling, and explore `crond` daemon security considerations.

09

Essential Linux Commands

Develop mastery over core Linux commands (`ls`, `cd`, `cp`, `mv`, `rm`, etc.). Utilize advanced tools like `top`, `ps`, `htop`, `df`, and `du` for system monitoring. Learn package management with `rpm`, `yum`, and `dnf`, and manage services with `systemctl` for real-time process and resource monitoring.

Why Choose OpenPath for Your Linux Journey?

Choosing the right program is a pivotal decision for your career trajectory in the ever-evolving IT landscape. OpenPath's Mastering Linux program is meticulously designed to offer more than just technical training; it provides a holistic ecosystem of support, expertise, and real-world relevance to ensure your success.

Industry-Driven Training

Our curriculum is not just theoretical; it's forged in the crucible of real-world enterprise system environments. You'll gain practical skills directly applicable to the challenges and demands of modern IT infrastructure.

Mentorship by Senior Professionals

Benefit from direct guidance and insights from senior Linux and DevOps professionals who are actively shaping the industry. Their experience provides invaluable context and advanced problem-solving techniques.

Affordable & Accessible Learning

We are committed to making high-quality, career-defining education accessible. Our learning plans are structured to be both cost-effective and flexible, removing barriers to entry for aspiring IT professionals.

Comprehensive Career Support

Our commitment extends beyond the classroom. We offer dedicated career services, including expert resume building, targeted interview preparation, and active placement assistance to help you seamlessly transition into a rewarding role.

Meet Our Visionary Founder

OpenPath is guided by the profound vision of **Mr. Vikas Debnath**, the esteemed Founder Director of KV IT-Solutions Pvt. Ltd. and the driving force behind OpenPath. His extensive experience and dedication to fostering talent underpin the philosophy of our programs.

> *"Linux is for everyone — with the right guidance, anyone can master it."*

Mr. Debnath's unwavering dedication to making Linux knowledge accessible to all is not just a principle, but the very heartbeat of OpenPath's curriculum, ensuring every student, regardless of their background, is empowered with unparalleled mentorship and resources to truly excel.

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