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# DevOps & AWS Syllabus (2026 Edition)



# **What are we going to cover ?**

Introduction

Linux & System Administration

Networking & Security

Scripting & Automation

Version Control Systems

Cloud Computing (Aws)

Containerization

CI/CD

Infrastructure as Code (IaC)

Orchestration & Cluster Management

Monitoring & Logging

# Velocity9 – Master DevOps & Cloud

Unlock your tech potential with hands-on DevOps, AWS, Kubernetes, and cloud training. Gain practical skills from industry experts, work on real-world projects, and accelerate your career growth with confidence.

With structured learning paths, mentorship, and career support, Velocity9 equips you to master the tools and technologies that top employers demand.

Learn. Build. Succeed.

# Linux Fundamentals (Complete System Administration)

- Bash commands & shell scripting
- File system, permissions, users & groups
- Process & service management (systemctl, journalctl)
- Log monitoring (/var/log, syslogs)
- System resource monitoring (CPU, memory, disk, network)
- Package management (apt, yum/dnf)
- Linux networking (ip, ss, netstat, routing, DNS)
- Storage management (mount, fstab, partitions)

# **Networking & Security**

- OSI & TCP/IP
- IP addressing, subnetting, routing
- HTTP, HTTPS, SSH, FTP, ICMP
- DNS, DHCP, NAT
- Firewalls, VPN basics
- Troubleshooting (ping, traceroute, dig, nslookup)

# **Python Scripting & Automation**

- Python basics, functions & modules
- File handling
- Error handling
- Automation scripts
- Scheduling scripts with cron

# Version Control (Git)

- Repository setup
- Tracking and committing changes
- Syncing and collaboration
- Branching and merging
- Working with remote repositories
- Merge conflict resolution
- Git workflows (Feature branching, GitFlow)

# Cloud Computing (AWS)

- Core AWS compute services
- Storage services
- Database services
- Identity and Access Management
- AWS networking (VPC, security controls)

# **Microservices & Containers (Docker)**

- Virtualization vs containerization
- Container concepts and architecture
- Images and containers
- Dockerfiles
- Multi-container applications with Docker Compose

# **CI/CD (Jenkins)**

- Jenkins CI/CD concepts
- Jenkins setup
- Jenkins pipeline creation
- Git integration with Jenkins

# **Infrastructure as Code (IaC)**

- Terraform configuration and workflow
- Terraform state management
- Ansible playbooks
- Server configuration with Ansible
- Inventory management

# **Kubernetes (K8s)**

- Kubernetes architecture
- Pods, Deployments, Services
- Cluster management
- Core Kubernetes operations
- Deployment strategies (rolling, blue-green)

# Monitoring & Logging

- Prometheus
- Grafana
- New Relic
- PagerDuty
- SLI / SLO / SLA
- Alerting & Incident Management
- Monitoring & Logging in Kubernetes