COURSE TABLE OF CONTENTS

Linux Administration for AWS Environments

OEM: Koenig Original • Duration: 5 Days (40 hrs)

COURSE MODULES & TOPICS

Module 1: Computer, OS, Linux and Cloud Fundamentals

- What is a computer, operating system, server and application?
- Linux kernel, shell and distributions explained
- Linux vs Windows: common use cases
- Introduction to Amazon Linux and Ubuntu
- Cloud computing basics and AWS overview

Module 2: AWS Basics and First Linux EC2 Instance

- AWS account, region and Availability Zone concepts
- AWS Management Console navigation
- Amazon EC2: instance, AMI, type and key pair
- Basic security group concepts and inbound access
- Launching and connecting to a Linux EC2 instance
- Safe handling of private keys
- Stopping and terminating resources

Module 3: Linux Terminal and Essential Commands

- Terminal, shell and command prompt basics
- Command format: command, options and arguments
- Navigation: pwd, ls, cd
- Create and remove directories: mkdir, rmdir
- Copy, move, remove files: cp, mv, rm
- View system information: whoami, hostname, date, uname
- Getting help: man and --help
- Command history and safe practices

Module 4: Files, Directories and Text Processing

- Linux directory layout overview
- View file content: cat, less, head, tail
- Search for files using find
- Search text using grep
- Redirection: >, >>, |
- Archive and extract files using tar
- Introduction to log and configuration files

Module 5: Users, Groups and Permissions

- Accounts and groups on servers
- View and switch users
- Create users and groups: useradd, groupadd
- Basic password management
- Read, write and execute permissions

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- chmod, chown and groups usage
- Introduction to sudo and admin privileges

Module 6: Linux Storage Fundamentals

- Disks, partitions, filesystems and mount points
- Explore storage: lsblk, df -h, du -sh
- Overview of ext4 and XFS
- Mount and unmount concepts
- AWS EBS volume basics and EC2 relationship
- Attach, format and mount EBS volumes
- Safe storage practices

Module 7: Networking and Remote Access

- IP address, DNS, gateway, port and protocol basics
- View network configuration: ip, hostname
- Test connectivity using ping
- Check listening sockets using ss
- SSH and secure remote administration
- Copy files using scp
- AWS VPC, subnet, route table and security group basics

Module 8: Software and Service Management

- Software packages and repositories
- Install and update packages using dnf (Amazon Linux)
- Introduction to apt on Ubuntu

Module 9: Linux Security, Logs and Monitoring

- Basic server security concepts
- Introduction to Linux logs
- Monitoring basics
- Backup fundamentals

Module 10: Introduction to Shell Scripting and Final Lab

- Create and run a simple Bash script
- Automate a repetitive task