Course duration

- 5 days

Course Benefits

- Perform basic Linux tasks.
- Manage users and groups.
- Manage permissions and ownership.
- Manage storage.
- Manage files and directories.
- Manage kernel modules.
- Manage the Linux boot process.
- Manage system components.
- Manage devices.
- Manage networking.
- Manage packages and software.
- Secure Linux systems.
- Write and execute Bash shell scripts.
- Automate tasks.
- Plan and perform a Linux installation.

Course Outline

1. Performing Basic Linux Tasks
    1. Identify the Linux Design Philosophy
    2. Enter Shell Commands
    3. Get Help with Linux
2. Managing Users and Groups
    1. Assume Superuser Privileges
    2. Create, Modify, and Delete Users
    3. Create, Modify, and Delete Groups
    4. Query Users and Groups
    5. Configure Account Profiles
3. Managing Permissions and Ownership
    1. Modify File and Directory Permissions
    2. Modify File and Directory Ownership
    3. Configure Special Permissions and Attributes
    4. Troubleshoot Permissions Issues
4. Managing Storage
    1. Create Partitions
    2. Manage Logical Volumes

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3. Mount File Systems
4. Manage File Systems
5. Navigate the Linux Directory Structure
6. Troubleshoot Storage Issues

5. Managing Files and Directories
    1. Create and Edit Text Files
    2. Search for Files
    3. Perform Operations on Files and Directories
    4. Process Text Files
    5. Manipulate File Output
6. Managing Kernel Modules
    1. Explore the Linux Kernel
    2. Install and Configure Kernel Modules
    3. Monitor Kernel Modules
7. Managing the Linux Boot Process
    1. Configure Linux Boot Components
    2. Configure GRUB 2
8. Managing System Components
    1. Configure Localization Options
    2. Configure GUIs
    3. Manage Services
    4. Troubleshoot Process Issues
    5. Troubleshoot CPU and Memory Issues
9. Managing Devices
    1. Identify the Types of Linux Devices
    2. Configure Devices
    3. Monitor Devices
    4. Troubleshoot Hardware Issues
10. Managing Networking
    1. Identify TCP/IP Fundamentals
    2. Identify Linux Server Roles
    3. Connect to a Network
    4. Configure DHCP and DNS Client Services
    5. Configure Cloud and Virtualization Technologies
    6. Troubleshoot Networking Issues
11. Managing Packages and Software
    1. Identify Package Managers
    2. Manage RPM Packages with YUM
    3. Manage Debian Packages with APT
    4. Configure Repositories
    5. Acquire Software
    6. Build Software from Source Code
    7. Troubleshoot Software Dependency Issues
12. Securing Linux Systems
    1. Implement Cybersecurity Best Practices
    2. Implement Identity and Access Management Methods
    3. Configure SELinux or AppArmor

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    4. Configure Firewalls
    5. Implement Logging Services
    6. Back Up, Restore, and Verify Data
13. Working with Bash Scripts
    1. Customize the Bash Shell Environment
    2. Identify Scripting and Programming Fundamentals
    3. Write and Execute a Simple Bash Script
    4. Incorporate Control Statements in Bash Scripts
14. Automating Tasks
    1. Schedule Jobs
    2. Implement Version Control Using Git
    3. Identify Orchestration Concepts
15. Installing Linux
    1. Prepare for Linux Installation
    2. Perform the Installation

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following *would be useful* for this CompTIA class:

- CompTIA A+ Certification

Prerequisite Courses

Courses that can help you meet these prerequisites:

- CompTIA A+ Certification Training

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