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

- 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

- 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