Linux+ Fundamentals and Certification
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Short Description:
Learn to plan, install, maintain, and troubleshoot Linux Operating Systems. Prepare for the Linux+ Certification.

Summary:
This course is designed to teach you the skills needed to effectively administer Linux workstations and servers. Students will plan, install, maintain, and troubleshoot Linux operating system services. The skills developed here will help prepare you for the CompTIA Linux+ certification exam.

Learning Objectives:

Part 1

- Introducing Linux
  - The Role and Functions of Linux
  - Background and History
  - Linux Distributions
  - Common Linux Roles
- Installing Linux
  - Downloading Cent OS
  - Verifying System Requirements and Hardware Compatibility
  - Planning Your File System
- Getting Help
  - Using man Pages
  - Using info
- Using VI (Non graphical editor)
- Managing the Linux File System
  - Navigating the file system
  - Managing files and directories
  - Running executables
  - Searching the file system
  - Manage disk partitions
  - Using removable media
  - Selecting a backup medium
  - Using backup utilities
- Working with Linux Users and Groups
  - Managing Users from command line
  - Managing Groups from command line
  - Manage Linux Permissions/Ownership and Quotas

Part 2

- Installing and Managing Software
  - Installing software from source code
  - Installing RPM packages
  - Install using YUM utility
- Using the Linux Shell
  - Manage Linux environment variables
  - Manage Shell command inputs and outputs
    - Using awk and sed
    - Using pipes
    - Redirecting input and output
- Creating Shell Scripts
- Managing Linux Processes and Services
  - Starting Processes
  - Stopping Processes
  - Prioritizing Processes
  - Scheduling Processes
- Managing the Linux Boot Process
  - Configuring LILO
  - Configuring GRUB
  - Working with the different Run Levels
- Configuring Hardware
  - Manage Hardware and Kernel Modules
  - Configure Power Management
  - Burn CD's and DVD's from command line
  - Implement RAID
  - Configure X Windows

Part 3

- Configuring Network Boards
  - Configure network interface
  - Test and monitor the network
  - Configure routing
- Configuring Linux Network Services
  - Configure a DHCP Server
  - Configure DNS
  - Configure Apache
  - Configure Samba
  - Configure Printing
  - Configure Basic Network Services with xinetd
  - Configure NFS
  - Configure Remote Access
  - Accessing Local Email
- Configuring Linux Security

- o Securing a System
- o Control User Access
- o Network Attack Protection
- o Detecting Intrusion Attempts
- Documenting and Troubleshooting the System
  - o Documenting system configuration and changes
  - o Troubleshooting system problems

Prerequisites:
There are no prerequisites. This course is for beginners looking learn Linux and prepare for the Linux+ certification.

Exams:
Each exam will be broken into 2 parts. A skills part as well as a written part.Each exam is worth 25% of your grade. If you pass you will receive a P2PU certificate as well as the necessary knowledge to take the CompTIA Linux+ certification. A passing score would be a 70% or higher.

1. Exam 1 will be on Part 1
2. Exam 2 will be on Part 2
3. Exam 3 will be on Part 3
4. Final Exam will be accumulative