

€ TRAINING

linux fundamentals





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Introduction

This course is focused on the fundamental tools and techniques of Linux and Unix operating systems so that students can gain proficiency using the command line. This course will provide extensive hands-on experience. Participants will learn how to manage files and directories, utilize the vi editor, work with Linux security mechanisms to protect files and programs, work with the Linux shell to control the flow and processing of data through pipelines, design and write shell programs of moderate complexity, and manage multiple concurrent processes in order to achieve higher utilization of Linux.

Course Objectives

At the end of this course, participants will be able to:

- Know about Linux principles, features, timeline...
- Get full knowledge about The Linux Filesystem
- know how to deal with manipulating files
- know how to manage the software
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Targeted Audience

- Beginners who want a solid foundation in Linux/Unix
- Experienced Linux Professionals who want to enhanced their knowledge of linux/Unix Operating System

Course Outline

Unit 1: What is Linux

- UNIX Origins, Design Principles and Timeline
- FSF, GNU, and GPL - General Public License
- The Linux Kernel and Linux Features
- What is a Distribution?
- SLS, Slackware, Mandriva, and Debian SUSE Linux Products
- Role Specific Distro
- Standardization

Unit 2: The Linux Filesystem

- LINUX Filesystem Features
- Filesystem Hierarchy Standard
- Navigating the Filesystem
- Displaying Directory Contents
- Determining Disk Usage
- Disk Usage with Quotas
- File Ownership
- File and Directory Permissions

- File Creation Permissions
- Changing File Permissions
- SUID and SGID on files
- SGID and Sticky Bit - Directories
- User Private Group Scheme

Unit 3: Manipulating Files

- Directory Manipulation
- File Manipulation
- File Creation and Removal
- Physical Unix File Structure
- Filesystem Links
- File extensions and content
- Displaying Files
- Previewing Files
- Searching the filesystem
- Alternate Search Method
- Producing File Statistics

Unit 4: Text Editing

- Text editing
- Pico/GNU Nano
- Pico/Nano Interface and Commands
- Vi: Basic and Advanced Vi
- Advanced Vi Commands
- Emacs and Emacs Interface
- Basic and Advanced Emacs Commands

Unit 5: Managing Software

- Downloading Software
- FTP, NcFTP, and lftp
- wget, lynx, and links
- Installing Software
- Installing Binary Packages - rpm
- Querying and Verifying with rpm
- Installing Debian Packages
- Compiling / Installing from Source
- Installing Source RPM Packages