Introduction to Linux

Overview

This course explores the various tools and techniques commonly used by Linux programmers, system administrators and end users to achieve their day-to-day work in a Linux environment. It is designed for computer users who have limited or no previous exposure to Linux, whether they are working in an individual or Enterprise environment.

Upon completion of this training you should have a good working knowledge of Linux, from both a graphical and command line perspective, allowing you to easily navigate through any of the major Linux distributions. You will be able to continue your progress as either a user, system administrator or developer using the acquired skill set.

Audience

This class is designed for people who have little or no prior experience with Linux or Unix. System Administrators, developers, architects, decision makers or new Linux users can all benefit from the content covered in this class, especially if they are looking to work with more involved topics such as Linux system administration, network management and enterprise system architecture.

Prerequisites

No prior experience with Linux is assumed in this class. We minimally expect students to have prior exposure to a computer running an operating system such as Apple or Windows. Experience using the basic features of a typical PC system, such as handling a mouse and a keyboard, is also assumed

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Course Outline

Welcome and Introduction

1. Introduction
- Linux Foundation
- Linux Foundation Training
- Course Linux Requirements

2. Linux Philosophy and Components
- Linux History
- Linux Philosophy
- Linux Community
- Linux Terminology
- Linux Distributions

3. Linux Structure and Installation
- Linux filesystem basics
- The boot process
- Linux Distribution Installation

4. Graphical Interface
- Session Management
- Basic Operations
- Graphical Desktop
- Labs

5. System Configuration from the Graphical Interface
- System, Display, Time and Date Settings
- Network Manager
- Installing and Updating Software
- Labs

6. Command-line Operations
- Command Line Mode Options
- Basic Operations
- Searching for Files
- Working with Files
- Installing Software
- Labs

7. Finding Linux Documentation
- Documentation Sources
- The man pages
- GNU info
- Help Command
- Other Documentation Sources
- Labs

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8. File Operations
- Filesystems
- Filesystem Architecture
- Comparing Files and File Types
- Backing Up and Compressing Data
- Labs

9. User Environment
- Accounts
- Environmental Variables
- Recalling Commands
- Command Aliases
- File Permissions
- Labs

10. Text Editors
- Basic Editors: nano and gedit
- Labs
- More Advanced Editors: vi and emacs
- Labs

11. Local Security Principles
- Understanding Linux Security
- Understand the Uses of root
- Using the sudo Command
- Working with Passwords
- Bypassing User Authentication
- Labs

12. Network Operations
- Introduction to Networking
- Browsers
- Transferring Files
- Labs

13. Manipulating Text
- Modifying Files
- sed and awk Commands
- File Manipulation Utilities
- grep Command
- Misc Text Utilities
- Dealing with Large Files and Text-related Commands
- Labs

14. Printing
- Configuration
- Printing Operations

Final Exam