

LPI 101 Preparatory Course

What you will receive

- LPI 101 v4.0 Preparatory course kit
- Current Linux distribution: SLES 10
- Professional Instructor-led training from Linux Professionals

What you will learn

- Maps to the updated LPI 101 exam objectives and covers everything you need to know to prepare for the LPI 101 exam
- All the key core elements of the Linux operating system – installation, package management, X Windows, application management, and more.

Who should attend?

- Anyone interested in gaining a greater understanding of Linux
- Anyone responsible for providing basic installation, operation, and troubleshooting services on Linux workstations and servers
- Microsoft professionals seeking to add Linux expertise

Course outline

Linux Overview

- Describe the history of Linux
- Describe the Free Software Model
- Describe the General Public License (GPL)
- List the different programming, hardware, and software features of Linux
- List the benefits and limitations of Linux

- Identify the major Linux distributions
- Describe various Linux standards
- Describe the Linux Documentation Project
- Identify Linux system administration tasks

Installing a Linux Workstation

- Identify the type of system, hardware, and network settings necessary for Linux installation
- Describe the need for pre-installation procedures
- Identify the different types of file systems: ext2fs, ext3fs, ReiserFS, XFS, and JFS
- Describe the procedures for CD-ROM or network installation
- List and describe the different types of boot loaders
- List and describe system initialization, boot sequences, and boot files

Hardware

- Describe a system boot procedure
- Describe the POST procedure
- Describe the BIOS/CMOS
- Identify the different drive types (e.g. ATAPI, SCSI, etc.)
- Define and identify “hot swappable” hardware
- Identify the different types of addresses
- Identify the different types of ports
- Identify the different channel categories
- Examine how to add and configure devices
- Define and describe audio controllers

Linux Usage

- Define command line basic procedures
- List common commands
- Describe and use the commands su and sudo
- Describe and perform basic file system tasks
- Locate commands and files
- Describe and use the Linux shell environment (e.g. bash)

Getting Help

- Use the uname and hostname command to identify system and host information
- Locate and identify system default files
- Use the man command
- Identify and communicate with active users
- Find files and commands

vi

- Identify Linux text editors (e.g. vi)
- Understand and distinguish the three types of modes in vi: command, insert, and execute
- Navigate within a text file using vi commands
- Open, edit, and save documents in vi
- Find/change words using global replacement and regular expressions in vi
- Split screens horizontally and vertically in vi
- Diff files using vimdiff and :diffsplit
- List and navigate buffers

File Systems

- To understand the Linux file system concepts
- Define and identify different file system structures and types
- Describe and mount file systems including MS Windows partitions
- Define and manage disk quotas
- Create different file systems
- Describe the /proc file system

Files and Directories

- Describe and explain the Linux file system directory structure
- Explain file system concepts
- Identify and explain inodes
- Utilize chown, chgrp, and other file related commands
- Set user and group ID permissions
- Identify and explain sticky bits
- Identify and explain links

The X Window System

- Describe and configure the X Window System
- Describe and configure window managers and desktop environments such as xdm, KDE, and GNOME
- Identify X configuration utilities such as SaX, XDrake, Xconfigurator, and xvidtune
- Locate and understand the syntax and purpose of the Xresources file

Package Management

- Describe and use package (software) management utilities such as Red Hat's rpm, Debian's dpkg, Slackware's pkgtool, and alien
- Install programs from source
- Use the configure, make, make install commands
- Examine a package file without using a standard package manager

Managing Shared Libraries

- Manage shared libraries
- Understand and identify shared libraries and their locations
- Define and implement commands associated with system libraries
- Install and support multiple versions of a shared library

Text Processing

- Use the programs in the grep family
- Understand regular expression
- Identify and utilize different text filters, such as cat, cut, sort, etc.
- Understand the basics of using sed
- Identify and define stdin, stdout, stderr
- Redirect input and output
- Utilize pipes

Processes

- Define and describe various Linux processes and daemons
- Define and analyze process control
- Assign process priority
- Explain process scheduling and process accounting