LPIC-1 V 5.0

(Exam codes 101-500 and 102-500)

Overview:

LPIC-1 is the first certification in the multi-level Linux professional certification program of the Linux Professional Institute (LPI). The LPIC-1 will validate the candidate's ability to perform maintenance tasks on the command line, install and configure a computer running Linux and configure basic networking.

The LPIC-1 is designed to reflect current research and validate a candidate's proficiency in real world system administration. The objectives are tied to real-world job skills, which we determine through job task analysis surveying during exam development.

Prerequisites

There are no prerequisites for this certification.

Requirements:

Passing the 101 and 102 exams. Each 90-minute exam is 60 multiple-choice and fill-in-the-blank questions.

To receive certificate the candidate must:

- Understand the architecture of a Linux system;
- Install and maintain a Linux workstation, including X11 and setup it up as a network client;
- Work at the Linux command line, including common GNU and Unix commands;
- Handle files and access permissions as well as system security; and
- Perform easy maintenance tasks: help users, add users to a larger system, backup and restore, shutdown and reboot.

Objectives

1. System Architecture
- 1.1 101.1 Determine and configure hardware settings
- 1.2 101.2 Boot the system
- 1.3 101.3 Change runlevels / boot targets and shutdown or reboot system

2. Linux Installation and Package Management
- 2.1 102.1 Design hard disk layout
- 2.2 102.2 Install a boot manager
- 2.3 102.3 Manage shared libraries
- 2.4 102.4 Use Debian package management
- 2.5 102.5 Use RPM and YUM package management
- 2.6 102.6 Linux as a virtualization guest

3. GNU and Unix Commands
- 3.1 103.1 Work on the command line
- 3.2 103.2 Process text streams using filters
- 3.3 103.3 Perform basic file management
- 3.4 103.4 Use streams, pipes and redirects
- 3.5 103.5 Create, monitor and kill processes
- 3.6 103.6 Modify process execution priorities
- 3.7 103.7 Search text files using regular expressions
- 3.8 103.8 Basic file editing

4. Devices, Linux Filesystems, Filesystem Hierarchy Standard
- 4.1 104.1 Create partitions and filesystems
- 4.2 104.2 Maintain the integrity of filesystems
- 4.3 104.3 Control mounting and unmounting of filesystems
- 4.4 104.4 Removed
- 4.5 104.5 Manage file permissions and ownership
- 4.6 104.6 Create and change hard and symbolic links
- 4.7 104.7 Find system files and place files in the correct location

Objectives: Exam 102

5. Shells and Shell Scripting
- Customize and use the shell environment
- Customize or write simple scripts

6. User Interfaces and Desktops
- Install and configure X11
- Graphical Desktops

Accessibility

8. Administrative Tasks
- Manage user and group accounts and related system files
- Automate system administration tasks by scheduling jobs
- Localisation and internationalisation

9. Essential System Services
- Maintain system time
- System logging
- Mail Transfer Agent (MTA) basics
- Manage printers and printing

10. Networking Fundamentals
- Fundamentals of internet protocols
- Persistent network configuration
- Basic network troubleshooting
- Configure client side DNS

11. Security
- Perform security administration tasks
- Setup host security
- Securing data with encryption
- Future Change Considerations