

# uCertify

## Course Outline

### Linux Powered by LPI - Exam 2 (Course & Lab)



20 May 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

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Chapter 2: Administering the System

Chapter 3: Configuring Basic Networking

Chapter 4: Writing Scripts, Configuring Email, and Using Databases

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## 1. Course Objective

Prepare for the CompTIA Linux+ LX0-104 certification exam with the Linux+ Powered by LPI - Exam 2 course and lab. The lab is cloud-based, device-enabled, and can be easily integrated with an LMS. Interactive chapters comprehensively cover the CompTIA Linux+ LX0-104 exam objectives and provide knowledge in areas such as Linux command line, maintenance tasks including assisting users, adding users to a larger system, and executing backup, restore, shutdown, reboot.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

## 3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



## 4. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

**64**

**QUIZ**

## 5. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

**168**

**FLASHCARDS**

## 6. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.

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**GLOSSARY OF  
TERMS**

## 7. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 8. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 9. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 10. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been

recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform

2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 11. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

## Syllabus

### Chapter 1: Configuring the X Window System, Localization, and Printing

- Configuring Basic X Features
- Configuring X Fonts
- Managing GUI Logins

- Using X for Remote Access
- X Accessibility
- Configuring Localization and Internationalization
- Configuring Printing
- Summary
- Exam Essentials

## Chapter 2: Administering the System

- Managing Users and Groups
- Tuning User and System Environments
- Using Log and Journal Files
- Maintaining the System Time
- Running Jobs in the Future
- Summary
- Exam Essentials

## Chapter 3: Configuring Basic Networking

- Understanding TCP/IP Networking



- Understanding Network Addressing
- Configuring Linux for a Local Network
- Diagnosing Network Connections
- Summary
- Exam Essentials

## Chapter 4: Writing Scripts, Configuring Email, and Using Databases

- Managing the Shell Environment
- Writing Scripts
- Managing Email
- Managing Data with SQL
- Summary
- Exam Essentials

## Chapter 5: Securing Your System

- Administering Network Security
- Administering Local Security
- Configuring SSH

- Using GPG
- Summary
- Exam Essentials

## Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

**8**

VIDEOS

**01:40**

HOURS

## 12. Practice Test

Here's what you get

**60**

PRE-ASSESSMENTS  
QUESTIONS

**4**

FULL LENGTH TESTS

**61**

POST-ASSESSMENTS  
QUESTIONS

## Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 13. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

## Lab Tasks

- Starting an X session
- Setting the variables

- Creating and deleting an account
- Managing a group
- Creating a user
- Configuring a password
- Configuring password aging
- Deleting a user account
- Identifying a directory name
- Managing log files
- Understanding system logging
- Displaying the long file listing
- Setting the local date and time
- Identifying a layer name
- Mapping port numbers and protocols
- Configuring the routing table
- Adding a default gateway
- Working with local Ethernet connection
- Displaying sockets
- Displaying information regarding traffic
- Pinging to the IPv6 host
- Tracing an IPv6 path
- Displaying environment variable
- Running MySQL
- Displaying information of processes
- Identifying TCP/IP and UDP ports
- Supporting FTP bounce scan
- Limiting user resources
- Searching SGID files

**Here's what you get**

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**PERFORMANCE BASED  
LAB**

## 14. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

## Lab Tasks

### **Configuring the X Window System, Localization, and Printing**

- Managing X fonts
- Changing timezone
- Querying and setting the locale and file encodings
- Configuring timezone using zone files
- Printing jobs in Linux

## **Administering the System**

- Reviewing account changes
- Viewing account records
- Adding users
- Modifying a user's password
- Modifying user accounts
- Modifying a user's groups
- Modifying account expiration settings
- Adding groups
- Modifying groups
- Deleting user accounts
- Managing groups
- Logging data manually
- Viewing journal data
- Learning about configuration files
- Managing the hardware clock
- Setting the system's date and time

## **Configuring Basic Networking**

- Viewing configuration files
- Resolving hostnames
- Configuring network interfaces
- Testing network connectivity

## **Writing Scripts, Configuring Email, and Using Databases**

- Managing aliases
- Managing shell variables
- Chaining of commands
- Executing scripts

## **Securing Your System**

- Using the network port auditing tool
- Checking network status
- Scanning network ports
- Auditing user access
- Limiting system resources
- Finding files
- Creating SSH keys
- Creating GPG keys
- Working with GPG keys

## Here's what you get

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LIVE LABS

### 15. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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