NDG Linux Courses Overview

Developed by NDG

NDG Linux courses: From zero knowledge to certification skills

1. NDG Linux Essentials is for beginners
   - Aligns to LPI.org Linux Essentials Professional Development certificate

2. NDG Introduction to Linux I is aligned to LPIC-1 / Linux+
   - Certifications:
   - Aligns to exam 101 for LPI.org LPIC-1
   - Aligns to exam LX0-103 CompTIA Linux+ powered by LPI

3. NDG Introduction to Linux II is aligned to LPIC-1 / Linux+
   - Certifications:
   - Aligns to exam 101 for LPI.org LPIC-1
   - Aligns to exam LX0-104 for CompTIA Linux+ powered by LPI

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NDG Linux course charges

1. Linux Essentials for beginners
   - Instructor Led Training is offered at no cost worldwide, for fee sustains the free offering
   - Self-paced access is offered for a discounted fee of $39.95 for Cisco Networking Academy participants

2. Introduction to Linux I aligned to LPIC-1 / Linux+
   - For fee course discounted for Cisco Networking Academies to $39.95
   - Instructor access provided at no cost

3. Introduction to Linux II aligned to LPIC-1 / Linux+
   - Course is currently in pilot

Why is NDG charging a fee? The fee is to sustain the course offerings.

How long is access? Institutions set the course start and end dates. (Maximum timeframe is six months).

Is the fee discounted? Yes, Cisco Networking Academies receive 50% discount from NDG retail price.

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Linux skills are in demand

93% of hiring managers plan to hire a Linux professional in the next six months

and almost **90%** said it's difficult to find experienced Linux pros.

This means lots of job opportunities for those with Linux skills.

-2014 Linux Job Report, Linux Foundation & Dice

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NDG Linux Essentials course content

- Designed to be a full semester course
  - With lectures, content, labs and assessments
- Sixteen (16) chapters
- Thirteen (13) lab exercises
- Virtual machine for learner via LMS
- Assessments
  - Chapter, midterm and final
- Instructor presentations for each chapter

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NDG Linux Essentials course modules

Title of Learning Module / Chapter	LPI.org Linux Essentials Certificate Objectives Covered
1 Introduction to Linux	1.1 Linux Evolution and Popular Operating Systems
	4.1 Choosing an Operating System
2 Open Source Applications and Licenses	1.2 Major Open Source Applications
	1.3 Understanding Open Source Software and Licensing
3 Using Linux	1.4 ICT Skills and Working in Linux
4 Command Line Skills	2.1 Command Line Basics
5 Getting Help	2.2 Using the Command Line to Get Help
6 Working with Files and Directories	2.3 Using Directories and Listing Files
	2.4 Creating, Moving and Deleting Files
7 Archiving and Compression	3.1 Archiving Files on the Command Line
8 Pipes, Redirection, and REGEX	3.2 Searching and Extracting Data from Files
9 Basic Scripting	3.3 Turning Commands into a script
10 Understanding Computer Hardware	4.2 Understanding Computer Hardware
11 Managing Packages and Processes	4.3 Where Data is Stored
12 Network Configuration	4.4 Your Computer on the Network
13 System and User Security	5.1 Basic Security and Identifying User Types
14 Managing Users and Groups	5.2 Creating Users and Groups
15 Ownership and Permissions	5.3 Managing File Permissions and Ownership
16 Special Permissions, Links and File Locations	5.4 Special Directories and Files

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CERTIFICATIONS

Establish the Base	Expand the Core	Tuned to Industry Needs	Drive Third Platform Careers
Linux Essentials	**LPIC-1**	**LPIC-2**	**LPIC-3**
More info	**More info**	**More info**	**More info**
Entry Level	Server Level	Network Level	Enterprise Specialties
010	101 & 102	201 & 202	300 / 303 / 304
Certificate Program	Professional Certification	Professional Certification	Professional Certification
0-12 Months	1-2 Years	2-3 Years	3+ Years
Installed/Desktop	Servers/Small Site	Small/Medium Site	Enterprise-Wide

NDG Introduction to Linux I aligned to LPIC-1 (101 Exam)

- Designed to be a full semester course
  - With lectures, content, labs and assessments
- Higher level of rigor than Linux Essentials
- 1st in series of two courses
- 27 chapters
- 24 lab exercises
- Assessments
  - Chapter, midterm and final
- Current release is English only

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NDG Introduction to Linux I Course Modules

Title of Learning Module / Chapter	LPI.org LPIC-1 101 Certification Objectives
Before You Get Started	Course Introduction
1 Using the Shell	103.1 Work on the command line
2 Getting Help	103.1 Work on the command line
3 Text Utilities	103.2 Process text streams using filters
4 Configuring the Shell	103.1 Work on the command line
5 File Manipulation	103.3 Process basic file management
6 File Globbing	103.3 Process basic file management
7 Finding Files	103.3 Process basic file management 104.7 Find system files and place files in the correct location
8 Regular Expressions	103.7 Search text files using regular expressions
9 The vi Editor	103.8 Perform basic file editing operations using vi
10 Standard Text Streams and Redirection	103.4 Use streams, pipes and redirects
11 Managing Processes	103.5 Create, monitor and kill processes 103,6 Modify process execution priorities
12 Archive Commands	103.3 Process basic file management
13 File Permissions and Ownership	104.5 Manage file permissions and ownership

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NDG Introduction to Linux I Course Modules Continued

Title of Learning Module / Chapter	LPI.org LPIC-1 101 Certification Objectives
14 File Systems Links	104.6 Create and change hard and symbolic links
15 Hardware Configuration	101.1 Determine and configure hardware settings
16 The Boot Process	101.2 Boot the system
17 Bootloaders	102.2 Install a boot manager
18 Runlevels	101.3 Change runlevels and shutdown or reboot system
19 Designing a Scheme	102.1 Design hard disk layout
20 Creating Partitions	102.1 Design hard disk layout 104.1 Create partitions and filesystems
21 Mounting Filesystems	102.1 Design hard disk layout 104.3 Control mounting and unmounting of filesystems
22 Maintaining Integrity	104.2 Maintain the integrity of filesystems
23 Fixing Filesystems	104.2 Maintain the integrity of filesystems
24 Disk Quotas	104.4 Manage disk quotas
25 RPM Package Management	102.5 Use RPM and YUM package management
26 Debian Software Management	102.4 Use Debian package management
27 Managing Shared Libraries	102.3 Manage shared libraries

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CERTIFICATIONS

Establish the Base	Expand the Core	Tuned to Industry Needs	Drive Third Platform Careers
Linux Essentials	**LPIC-1**	**LPIC-2**	**LPIC-3**
More info	**More info**	**More info**	**More info**
Entry Level	Server Level	Network Level	Enterprise Specialties
010	101 & 102	201 & 202	300 / 303 / 304
Certificate Program	Professional Certification	Professional Certification	Professional Certification
0-12 Months	1-2 Years	2-3 Years	3+ Years
Installed/Desktop	Servers/Small Site	Small/Medium Site	Enterprise-Wide

NDG Introduction to Linux II aligned to LPIC-1 (102 Exam)

- Designed to be a full semester course
  - With lectures, content, labs and assessments
- 2nd course in series
- 19 chapters
- 19 lab exercises
- Assessments
  - Chapter, midterm and final
- Current release is English only

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NDG LPIC-1 102 Preliminary Course Modules

Title of Learning Module / Chapter	LPI.org LPIC-1 101 Certification Objectives
1 Shell Customization	105.1 Customize and use the shell environment
2 Introduction to Shell Scripts	105.2 Customize or write simple scripts
3 X Windows Components	106.1 Install and configure X11
4 Configuring Display Managers	106.2 Setup a display manager
5 Accessibility	106.3 Accessibility
6 User and Group Accounts	107.1 Manage user and group accounts and related system files
7 Scheduling Jobs	107.2 Automate system administration tasks by scheduling jobs
8 Localization	107.3 Localization and internationalization
9 System Time	108.1 Maintain system time
10 Logging	108.2 System logging
11 Email Configuration	108.3 Mail Transfer Agent (MTA) basics
12 Printer Management	108.4 Manage printers and printing

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CERTIFICATIONS

Establish the Base	Expand the Core	Tuned to Industry Needs	Drive Third Platform Careers
Linux Essentials	**LPIC-1**	**LPIC-2**	**LPIC-3**
More info	**More info**	**More info**	**More info**
Entry Level	Server Level	Network Level	Enterprise Specialties
010	101 & 102	201 & 202	300 / 303 / 304
Certificate Program	Professional Certification	Professional Certification	Professional Certification
0-12 Months	1-2 Years	2-3 Years	3+ Years
Installed/Desktop	Servers/Small Site	Small/Medium Site	Enterprise-Wide

How can I offer these new NDG Linux courses?

- **Available in Cisco NetSpace**
- **Purchase by institution or learner**
  - **For courses with a fee**

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Course home page in NetSpace

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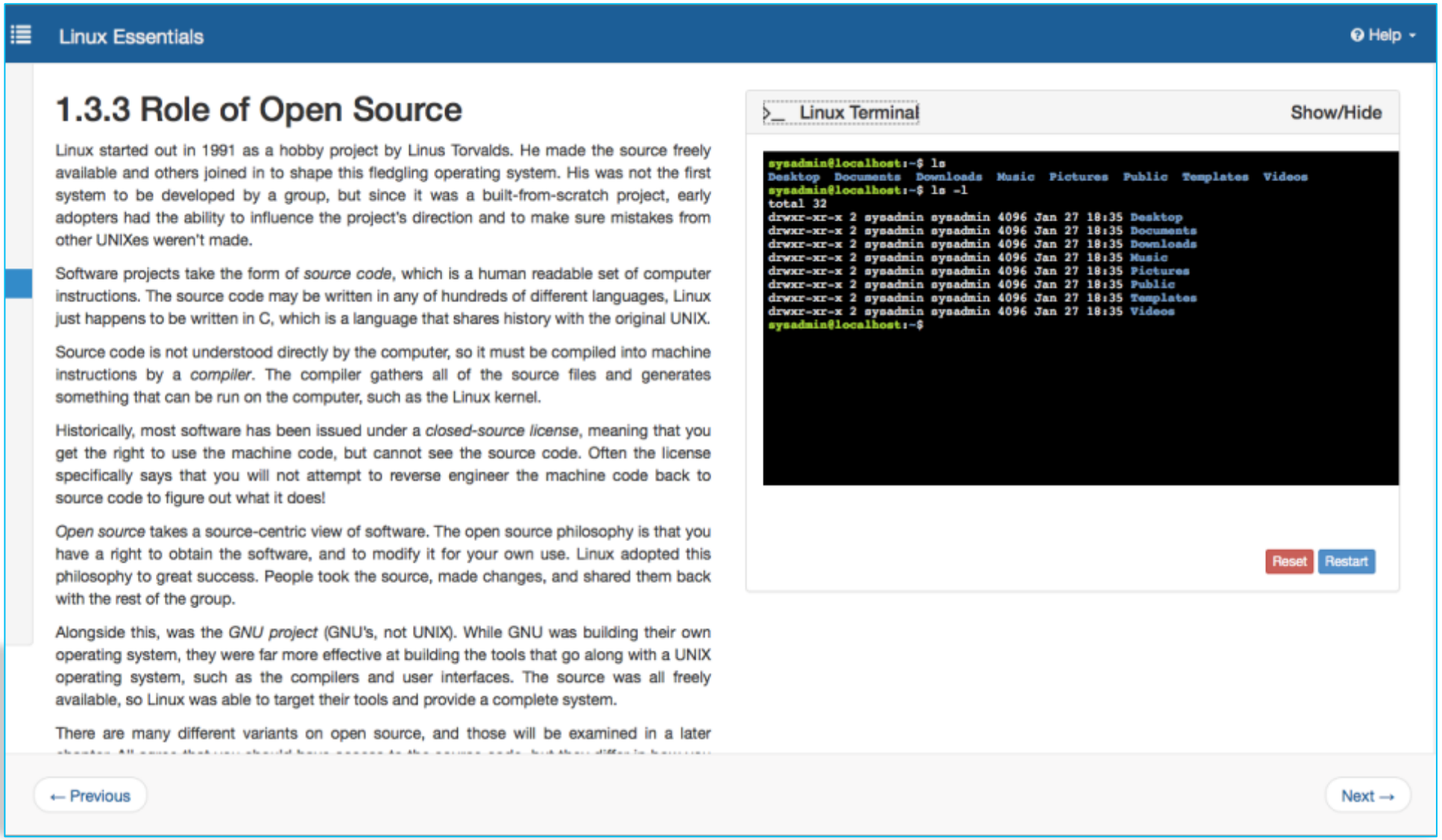
Course content with virtual machine = Learn by Doing!



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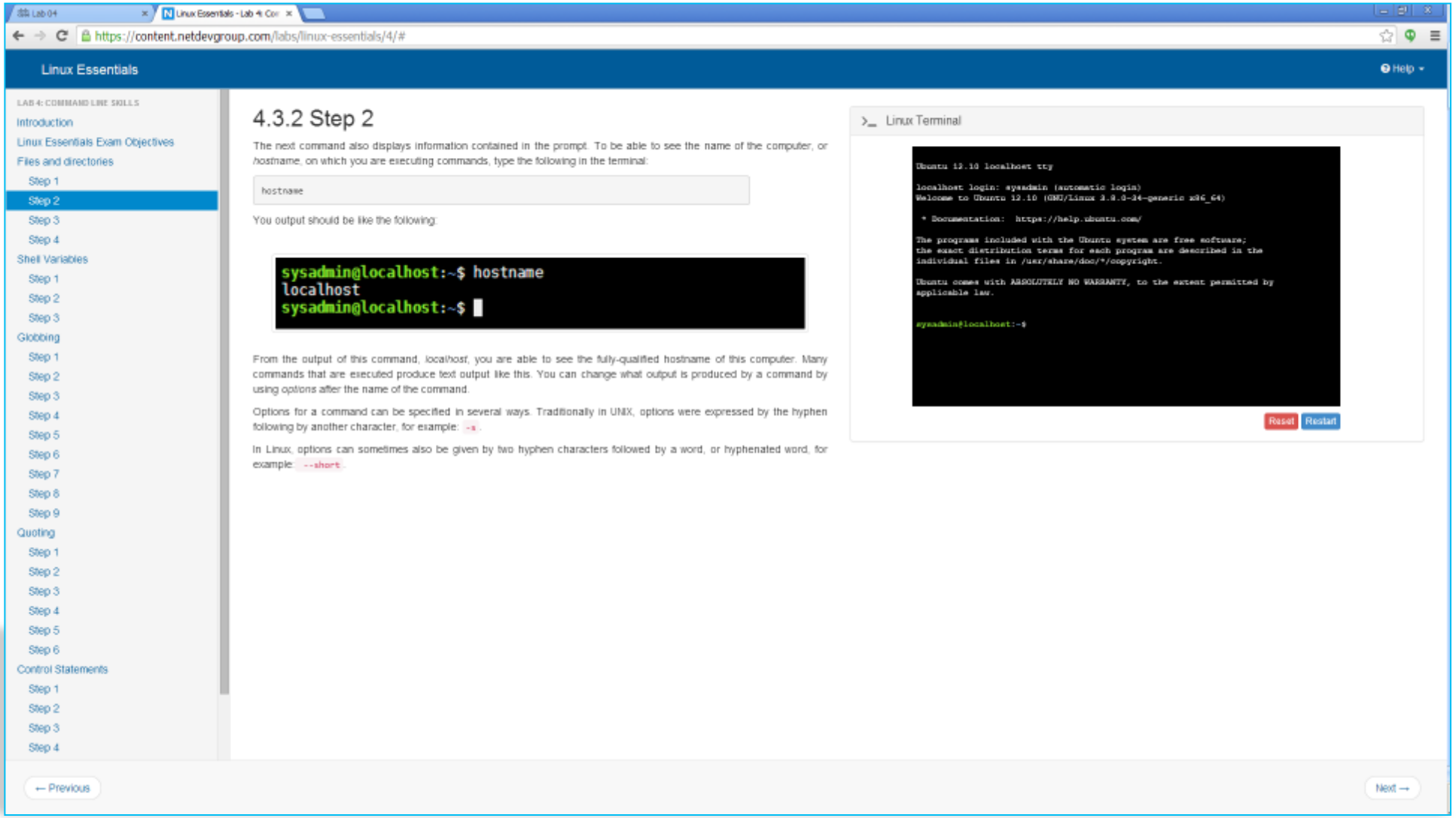
Lab exercises for learners to reinforce skills



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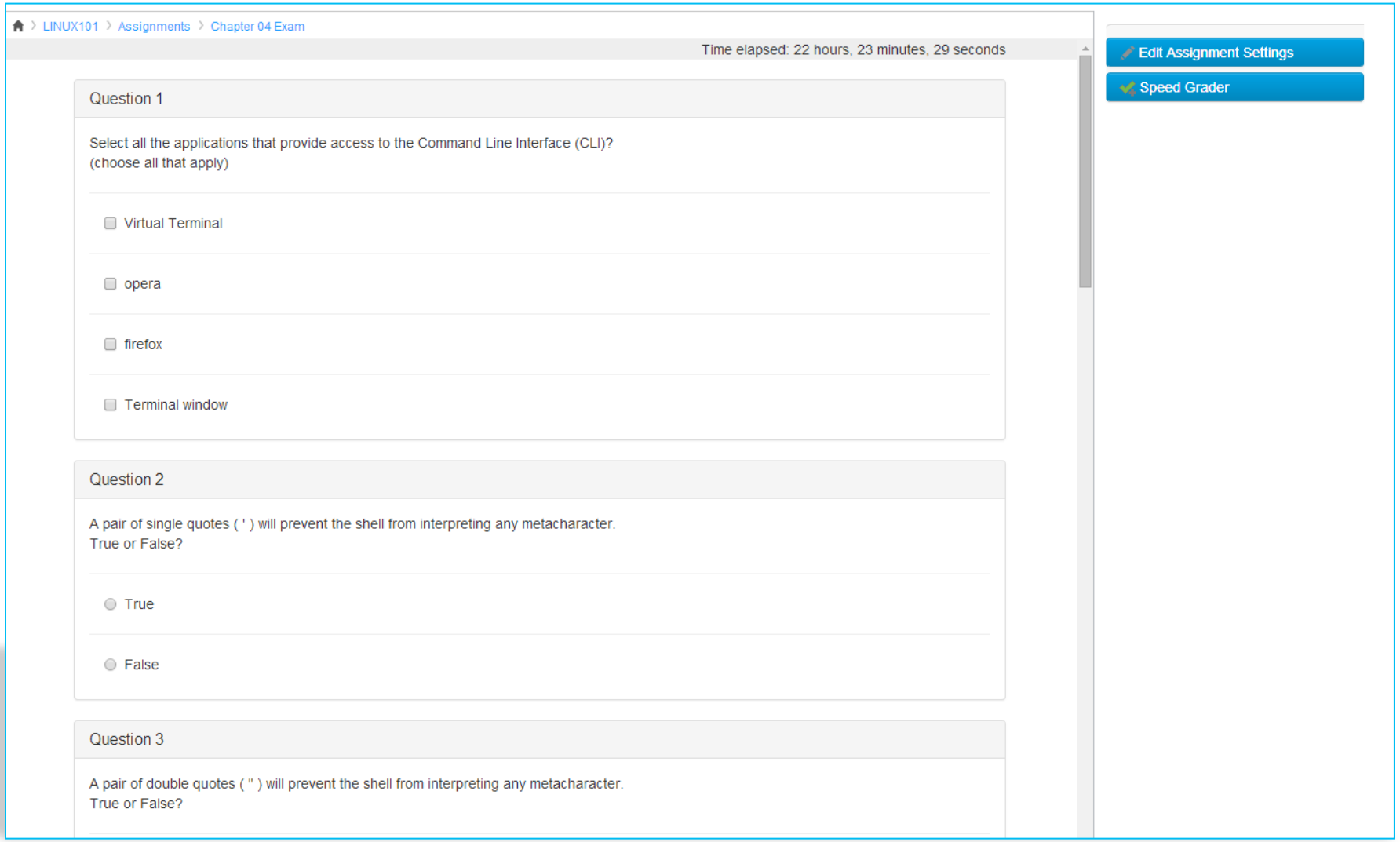
Assessments: Chapter Quizzes, Midterm and Final



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Instructor lecture materials – PowerPoint per chapter

- Aligns to certificate
- Lists objectives
- Helps with lectures

4.1 Linux Essentials Exam Objectives

2.1 Basics of using the Linux command line.

Weight: 2

Description: Basics of using the Linux command line.

Key Knowledge Areas:

a. Basic shell
b. Formatting commands
c. Working with Options
d. Variables
e. Globbing
f. Quoting

The following is a partial list of the used files, terms, and utilities:

a. echo
b. PATH environment variable
c. history
d. which

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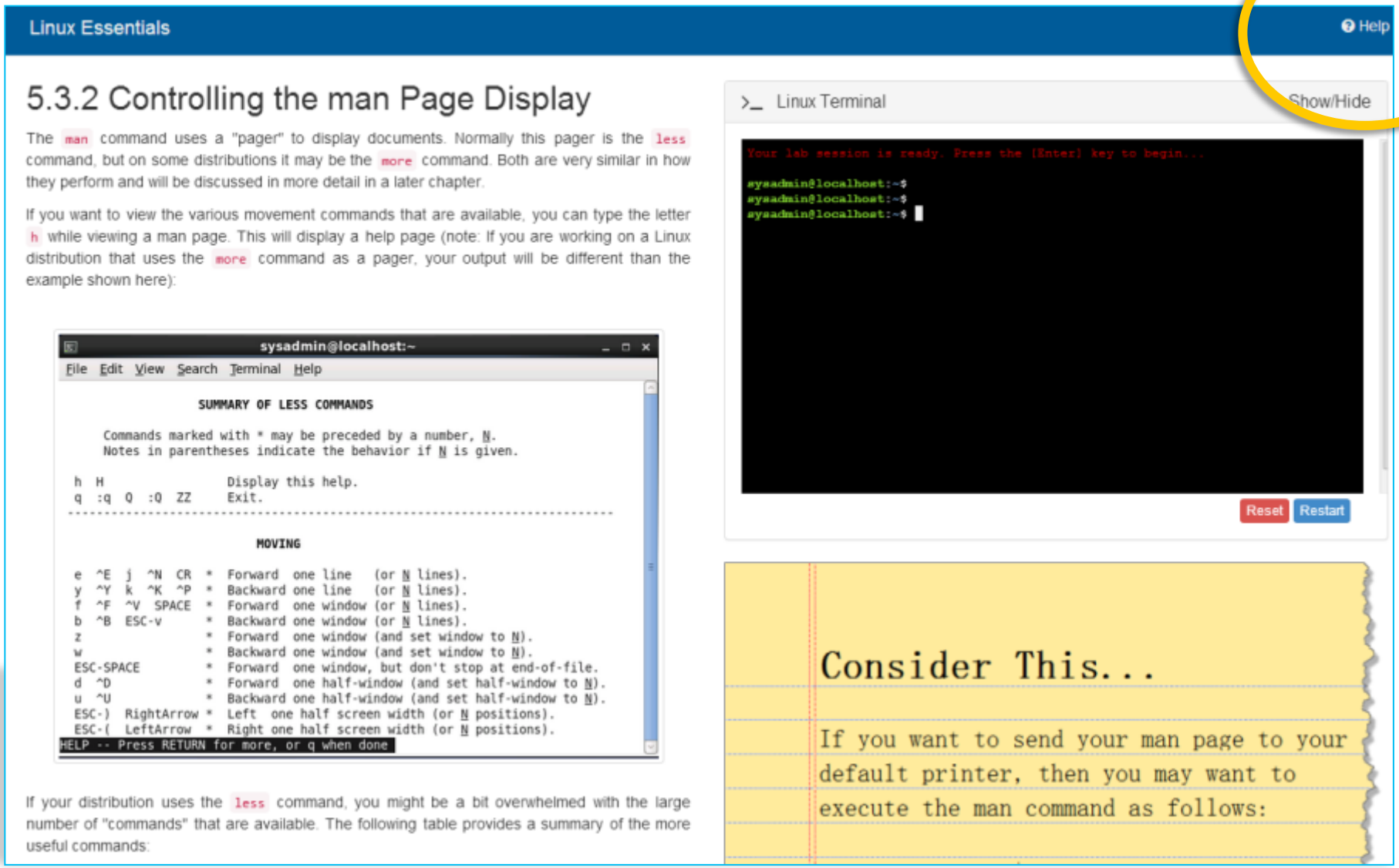
Online support built into the curriculum



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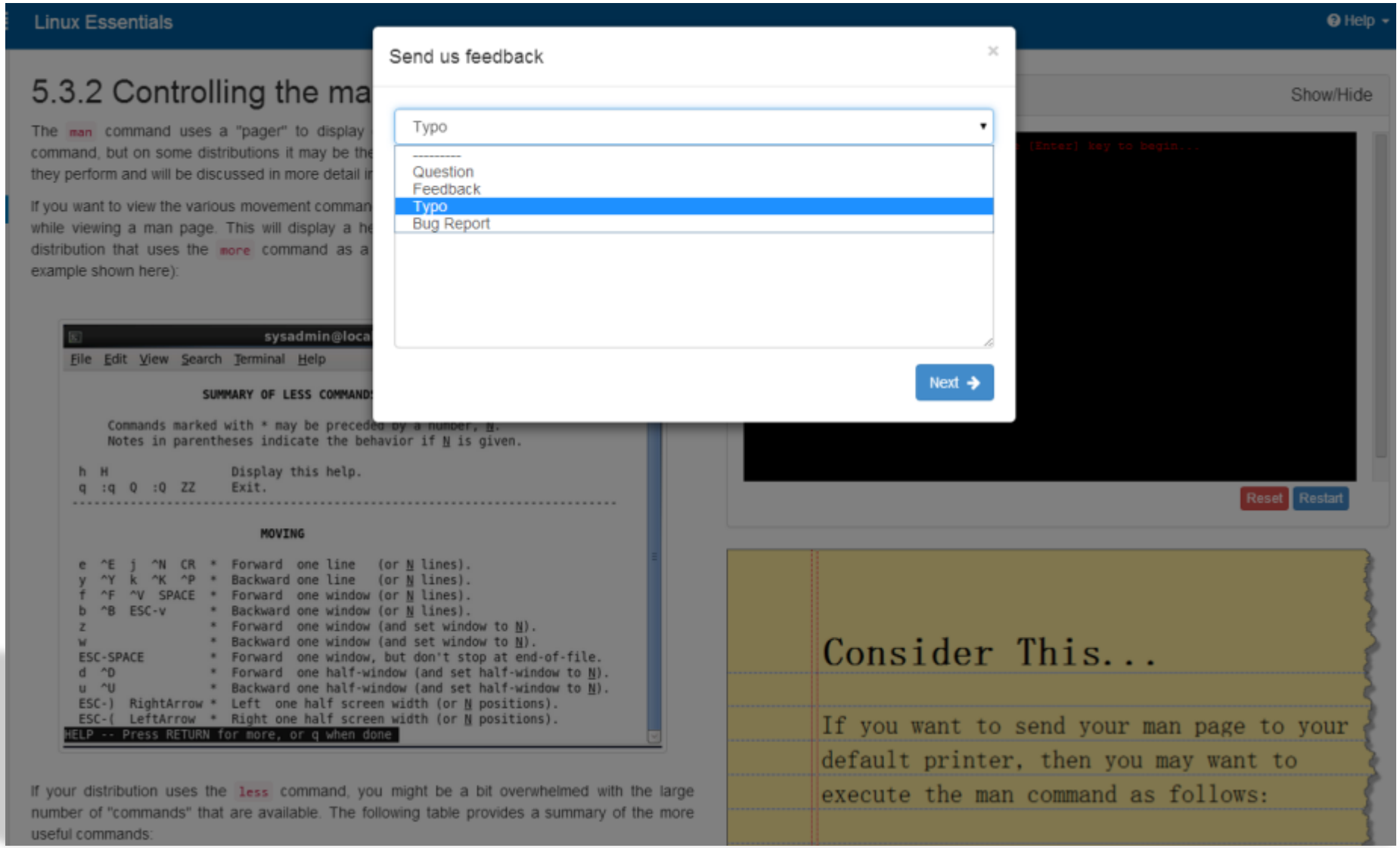
NDG online tool to submit issues



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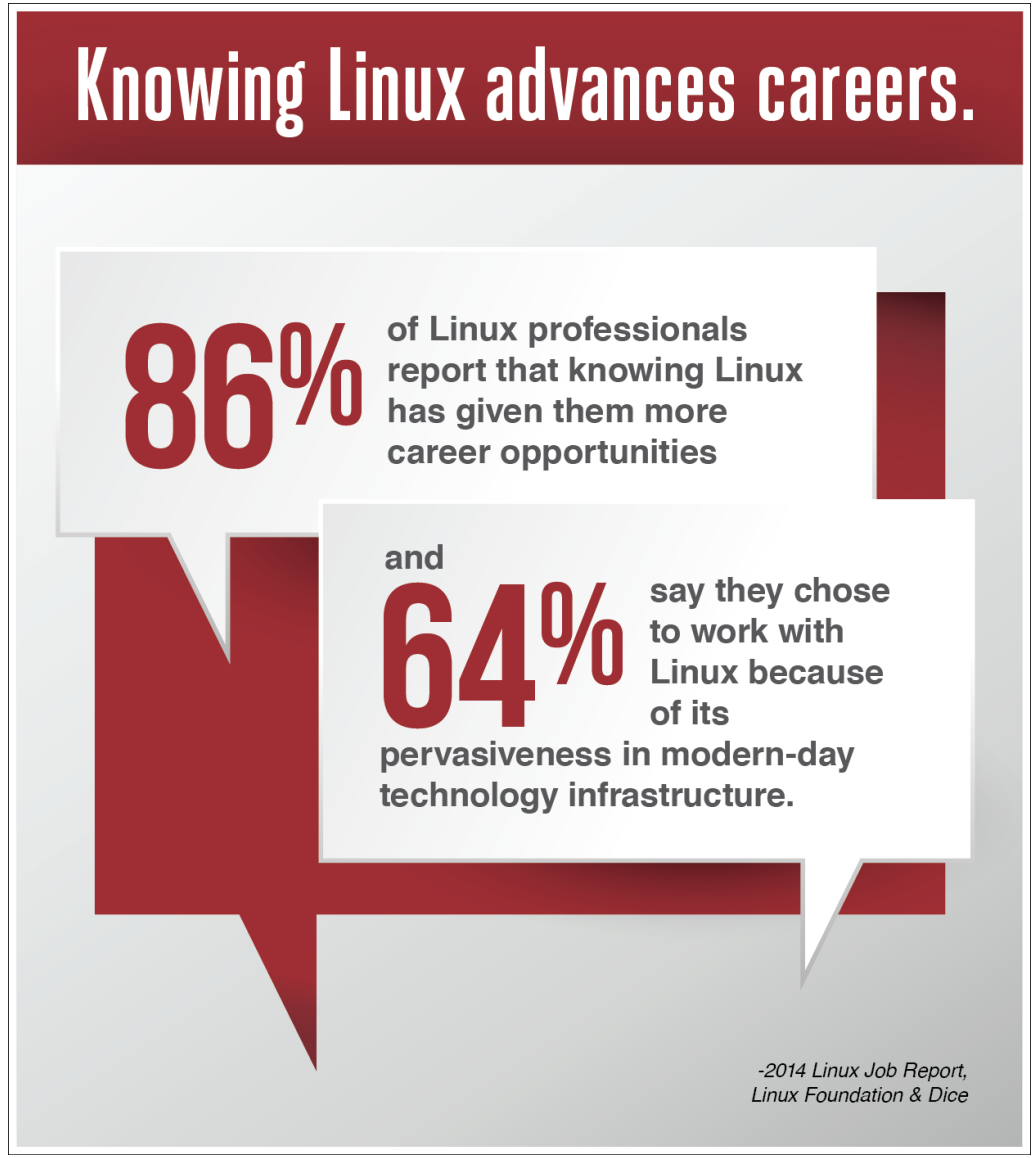
NDG Linux Course Summary

- Goal is additional content aligned to job skills
- Linux Essentials teaches Linux command line
  - Helps Cisco students learn basics of Linux
- Introduction to Linux I aligns to LPIC-1 / Linux+
- Introduction to Linux II aligns to LPIC-1 / Linux+



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