


<b>Course Name</b>	<b>Core Linux System Administration</b>	
<b>About the Course</b>	Learn how to install, configure, and maintain a Linux system in a networked environment	
<b>Key Skills You Will Learn</b>	This lab-intensive course explores core administrative tasks such as creating and managing users, creating and maintaining file systems, determining and implementing security measures, and performing software installation and package management	
<b>Course Pre-Requisite</b>	You should have: Experience with common UNIX/Linux user-level commands, such as moving, copying and editing files, Experience with the vi editor	
<b>Target Audience</b>	Systems Administrators	
<b>Job prospects with this role</b>	Linux Administrator	
<b>Course Duration</b>	40 Hours	
<b>Course Customisation</b>	Not applicable	
<b>Certification</b>	READYBELL Linux System Administration Certificate	
<b>Mode of Training</b>	Instructor-led 100% Online or 100% Classroom (Salt Lake, Kolkata - India) or hybrid mode (Online + Classroom) as suitable for the learner	
<b>Course Fees</b>	Please contact us	
<b>Refund Policy</b>	Get a 3-hours free trial during which you can cancel at no penalty. After that, we don't give refunds	
<b>Job Assistance</b>	Will assist candidate in securing a suitable job	
<b>Contact</b>	<b>READYBELL SOFTWARE SERVICES PVT. LIMITED</b> <b>AH 12, SALT LAKE SECTOR 2, KOLKATA (INDIA) - 700 091</b> <b>E-MAIL: <a href="mailto:contact@readybellssoftware.com">contact@readybellssoftware.com</a></b> <b>PH: +91 - 9147708045/9674552097, +91 - 33-79642872</b>	 Software Services Pvt. Ltd.

CURRICULUM		
Topic	Sub-Topic	Duration (Hrs)
<b>Core Linux System Administration</b>	Module 1: System Administration Overview	40 Hrs
	UNIX, Linux and Open Source	
	Duties of the System Administrator	
	Superusers and the Root Login	
	Sharing Superuser Privileges with Others (su and sudo commands)	
	TCP/IP Networking Fundamentals	
	Online Help	
	Module 2: Installation and Configuration	
	Planning: Hardware and Software Considerations	
	Site Planning	
	Installation Methods and Types	
	Installation Classes	
	Partitions	
	Logical Volume Manager - LVM	
	File System Overview	
	Swap Partition Considerations	
	Other Partition Considerations	
	The Linux Boot Loader: grub	
	Software Package Selection	
	Adding and Configuring Peripherals	
	Printers	
	Graphics Controllers	
	Basic Networking Configuration	
	Booting to Recovery Mode	
	Module 3: Booting and Shutting Down Linux	
	Boot Sequence	
	The systemd Daemon	
	The systemctl Command	
	Targets vs. Run Levels	
	Modifying a Target	
Service Unit Scripts		
Changing System States		
Booting into Rescue Mode		
Shutdown Commands		

	Module 4: Managing Software and Devices	
	Identifying Software Packages	
	Using rpm to Manage Software	
	Using yum to Manage Software	
	Installing and Removing Software	
	Identifying Devices	
	Displaying Device and System Information (PCI and USB)	
	Plug and Play Devices	
	Device Configuration Tools	
	Module 5: Managing Users and Groups	
	Setting Policies	
	User File Management	
	The /etc/passwd file	
	The /etc/shadow file	
	The /etc/group file	
	The /etc/gshadow file	
	Adding Users	
	Modifying User Accounts	
	Deleting User Accounts	
	Working with Groups	
	Setting User Environments	
	Login Configuration Files	
	Module 6: The Linux File System	
	Filesystem Types	
	Conventional Directory Structure	
	Mounting a File System	
	The /etc/fstab File	
	Special Files (Device Files)	
	Inodes	
	Hard File Links	
	Soft File Links	
	Creating New File Systems with mkfs	
	The lost+found Directory	
	Repairing File Systems with fsck	
	The Journaling Attribute	
	File and Disk Management Tools	
	Module 7: Linux File Security	
	File Permissions	
	Directory Permissions	
	Octal Representation	

	Changing Permissions	
	Setting Default Permissions	
	Access Control Lists (ACLs)	
	The getfacl and setfacl commands	
	SUID Bit	
	SGID Bit	
	The Sticky Bit	
	Module 8: Controlling Processes	
	Characteristics of Processes	
	Parent-Child Relationship	
	Examining Running Processes	
	Background Processes	
	Controlling Processes	
	Signaling Processes	
	Killing Processes	
	Automating Processes	
	cron and crontab	
	at and batch	
	System Processes (Daemons)	
	Module 9: Working with the Linux Kernel	
	Linux Kernel Components	
	Types of Kernels	
	Kernel Configuration Options	
	Recompiling the Kernel	
	Module 10: Shell Scripting Overview	
	Shell Script Fundamentals	
	Bash Shell Syntax Overview	
	Shell Script Examples	
	Module 11: System Backups	
	Backup Concepts and Strategies	
	User Backups with the tar Command	
	System Backup Options	
	The xfsdump and xfsrestore Commands	
	Module 12: Troubleshooting the System	
	Common Problems and Symptoms	
	Troubleshooting Steps	
	Repairing General Boot Problems	
	Repairing the GRUB 2 Boot Loader	
	Hard Drive Problems	
	Restoring Shared Libraries	

System Logs and rsyslogd
Module 13: Basic Networking
Networking Services Overview
NetworkManager Introduction
Network Configuration Files Locations and Formats
Enabling and Restarting Network Services with systemctl
Configuring Basic Networking Manually
Configuring Basic Networking with NetworkManager
Module 14: LAMP Server Basics
LAMP Overview
Configuring the Apache Web Server
Common Directives
Apache Virtual Hosting
Configuring an Open Source Database
PHP Basics
Perl CGI Scripting
Module 15: Introduction to System Security
Security Overview
Maintaining System Security
Server Access
Physical Security
Network Security
Security Tools
Port Probing with nmap
Intrusion Detection and Prevention
PAM Security Modules
Scanning the System
Maintaining File Integrity
Using Firewalls
Introduction to firewalld
Module 16: The Samba File Sharing Facility
Configure Samba for Linux to Linux/UNIX File Sharing
Configure Samba for Linux to Windows File Sharing
Use the smbclient Utility to Transfer Files
Mount/Connect Samba Shares to Linux and Windows Clients
Module 17: Networked File Systems (NFS)
Using NFS to Access Remote File Systems
Configuring the NFS Server
Configuring the NFS Client
Exporting File Systems from the NFS Server to the NFS Client

**To register for this course please e-mail/call us**

