



## Linux Administration 1(40 hrs.)

**Prerequisites:** OS Concepts / Interested in Linux

### Course Topics:

#### Linux History:

- Unix Systems
- Redhat Base Linux Systems
- Debian Base Linux Systems
- Linux Certificates and Courses

#### Exploring Linux Command-Line Tools:

- Understanding Command-Line Basics
- Using Shell
- Using Redirection and Pipes
- Using Regular Expressions

#### Managing Software:

- Package Concepts
- Using RPM
- Using Yum
- Using DPKG
- Using APT
- Package Dependencies and Conflicts
- Managing Processes
- Managing Process Priorities
- Killing Processes

#### Configuring Hardware:

- Configuring Hard Disks
- Designing a Hard Disk Layout
- Creating Partitions and Filesystems
- Mount Points

#### Managing Files:

- File Naming and Wildcard Expansion Rules
- File Archiving Commands
- Managing Links
- Managing File Ownership
- Managing File Permissions

#### Booting Linux and Editing Files:

- Installing Boot Loaders
- Understanding the Boot Process
- Dealing with Runlevels and the Initialization Process
- Managing Runlevel Services
- Editing the Files with VI

#### Configuring the X Window System:

- Configuring Basic X Features
- Using X Commands

#### Administaring the System:

- Managing User and Groups
- Managing the System Time
- Configuring and Running Jobs



**Configuring Basic Networking:**

- Understanding TCP/IP Networking
- Understanding Network Addressing
- Configuring Linux for a Local Network
- Configuring with a Static IP Address
- Using GUI Configuration Tools
- Diagnosing Network Connections

**Shell Scripting, Configuring E-mail, Using Databases:**

- Managing the Shell Environments
- Using Environment Variables
- Using Aliases
- Writing Scripts
- Managing E-mail
- Managing Data SQL

**Securing the System:**

- Administaring Network Security
- Securing Passwords
- Limiting root Access