

Debian Linux : Basics

Presentation

Objectives : Master Debian Linux basics.

Who can benefit : Anyone.

Prerequisites : Knowledge of another operating system.

Learning technique : Clear, theoretical course content divided into lessons and extensive LABS available on-line 24/24 7/7.

Student Progression : Student progression is monitored both in terms of effective course duration and in terms of student comprehension using self-assessment tests.

Cursus

- **File Hierarchy System**

- Directory Contents
- Directory Structure
- File Types
- The mount command
 - Command Line Switches
- The /etc/fstab file
 - Understanding the /etc/fstab file
 - Mountpoint Options
- The umount command
 - Command Line Switches
- Unix File Systems
 - Superblock
 - Inodes
 - Data Blocks
 - Hard (Physical) Links

- Soft (Symbolic) Links
- **Commands:** mount, umount.
- **The Visual Editor**
 - Presentation
 - Creating, Opening and Closing files with VI
 - Commands
 - LAB #1 - Creating a new file with VI
 - LAB #2 - Opening a file in read-only mode using view
 - LAB #3 - Opening a file in read-write mode using VI
 - The set Command
 - Commands
 - LAB #4 - Turning on line numbering using set
 - Moving around within the file
 - Commands
 - Inserting Text
 - Commands
 - LAB #5 - Inserting text
 - Searching for Text
 - Commands
 - LAB #6 - Searching for and replacing text
 - Deleting Text
 - Commands
 - LAB #7 - Deleting lines
 - Copy, Cut and Paste
 - Commands
 - LAB #8 - Copying, Cutting and pasting text
 - Configuring a Personalised Interface
 - **Commands:** view, vi
- **Help and Documentation**
 - Help on external commands
 - Help on built-in commands
 - The man command
 - The apropos command

- The mandb and whatis commands
- The info command
 - Command Line Switches
- **Commands:** help, man, info, apropos, mandb, whatis.
- **Basic Shell Commands and Text Manipulation Tools**
 - Use of Basic Shell Commands
 - The stty Command
 - The date command
 - The who Command
 - The df Command
 - The free Command
 - The whoami Command
 - The pwd Command
 - The cd Command
 - The ls Command
 - The lsof Command
 - The touch Command
 - The echo Command
 - The cp Command
 - The file Command
 - The cat Command
 - The mv Command
 - The mkdir Command
 - The rmdir Command
 - The rm Command
 - The sort Command
 - The more Command
 - The less Command
 - The find Command
 - The su Command
 - The updatedb and locate Commands
 - The whereis Command
 - The which Command

- The uptime Command
- The w Command
- The uname Command
- The du Command
- The clear Command
- The exit Command
- The logout Command
- The sleep Command
- The wall Command
- The seq Command
- The screen Command
- Switches and Arguments
- Manipulating Text Files
 - Regular Expressions
 - BREs
 - EREs
 - Text-search Utilities
 - The grep Command
 - The egrep Command
 - The fgrep Command
 - LAB #1 - Using grep, egrep and fgrep
 - The Stream Editor SED
 - LAB #2 - Using sed
 - The Text Processor AWK
 - Presentation
 - Field Separation
 - Conditions
 - A regular expression applied to a record
 - A regular expression applied to a field
 - Comparisons
 - Logical Operators
 - Built-in Variables
 - Awk Scripts
 - The printf function

- Control Statements
 - if
 - for
 - while
 - do-while
- LAB #3 - Using awk
- Other Useful Commands
 - The expand Command
 - La Commande unexpand
 - The cut command
 - The uniq Command
 - The tr Command
 - The paste Command
 - The split Command
 - The diff Command
 - The cmp Command
 - The patch Command
 - The strings Command
 - The comm Command
 - The head Command
 - The tail Command
 - LAB #4 - Use the grep, tr and cut to extract your IP address from the output of ifconfig
- **Commands:** stty, date, who, df, free, whoami, pwd, cd, ls, touch, echo, cp, file, cat, mv, mkdir, rmdir, rm, sort, more, find, su, locate, updatedb, whereis, which, uptime, w, uname, du, lsmod, modprobe, rmmod, modinfo, clear, exit, logout, sleep, grep, egrep, fgrep, sed, awk, tr, paste, cut, split, diff, cmp, uniq, patch, strings, comm, od, head, tail, wall, screen.
- **Command Line Interface**
 - The Shell
 - /bin/bash
 - Internal And External Commands
 - Aliases
 - The Prompt
 - The history Command
 - The TAB key

- Metacharacters
 - The * Metacharacter
 - The ? Metacharacter
 - The [] Metacharacter
 - The extglob Option
 - ?(expression)
 - *(expression)
 - +(expression)
 - @(expression)
 - !(expression)
- Protecting Metacharacters
- Exit Status
- Redirections
- Pipes
- Command Substitution
- Conditional Command Execution
- Environment Variables
 - Principal Variables
 - Internationalisation and Localisation
 - Special Variables
 - The env Command
- Bash Shell Options
 - noclobber
 - noglob
 - nounset
- Basic Shell Scripting
 - Execution
 - The read command
 - Code de retour
 - The IFS Variable
 - The test Command
 - Testing Files
 - LAB #1
 - Testing Strings

- LAB #2
- Testing Numbers
 - LAB #3
- Expressions
 - LAB #4
- Testing the User Environment
 - LAB #5
- The [[expression]] Command
 - LAB #6
- Shell Operators
 - LAB #7
- The expr Command
 - Maths
 - Comparisons
 - Logic
 - LAB #8
 - The let Command
 - Maths
 - Comparisons
 - Logic
 - Binary
 - LAB #9
- Control Structures
 - If
 - case
 - Loops
 - for
 - while
 - Example
 - Start-up Scripts
 - LAB #10
 - ~/.bash_profile
 - ~/.bashrc
- **Commands:** type, alias, unalias, chsh, history, wc, tee, set, vi, script, read, test, expr, let, if, case, for, while.

