2025/08/11 14:01 1/8 Debian Linux : Basics

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
- o 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
- o 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 Is Command
 - The Isof 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

2025/08/11 14:01 4/8 Debian Linux : Basics

- 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

2025/08/11 14:01 5/8 Debian Linux : Basics

- Control Statements
 - ∘ if
 - o 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

2025/08/11 14:01 7/8 Debian Linux : Basics

- ∘ 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.

2025/08/11 14:01 8/8 Debian Linux : Basics