

Unix Fundamentals

Day 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: INTRODUCTION TO THE UNIX OPERATING SYSTEM

- A brief history of UNIX
- The UNIX kernel
- The UNIX file system
- Getting started navigating the file system
- The file system structure
- Directories and files
- Pathnames
- Navigating the file system
- Exercise: Logging on to the system
- Exercise: Navigating the file system

Session 2: BASIC COMMANDS

- Command line syntax
- Basic file handling commands
- Basic Directory handling commands
- Filename wildcard characters
- Exercise: Manipulating files and directories

Session 3: REDIRECTION AND PIPES

- Input redirection
- Output redirection
- Pipes
- Exercise: Using redirection and pipe facilities

DAY 2

Session 4: INTRODUCTION TO THE vi EDITOR

- Overview of the vi editor

- Basic functions
- Switching to input mode
- Other useful commands
- Exercises: Using the vi editor
- Exercise: Using more advanced vi features

Session 5: SEARCHING AND REPLACING TEXT

- Searching and replacing text using the vi editor
- Using regular expressions (regex)
- Using sed for search and replace
- Searching for text with grep, egrep and fgrep
- Exercises: Searching and Replacing Text

Session 6: RECALLING AND EDITING COMMANDS

- Overview
- The bash shell
- The korn shell
- Exercises: Recall and Edit Commands

Session 7: FILE PERMISSIONS AND ACCESS CONTROL

- Users and user groups
- File access permissions
- Changing file attributes
- Switching users and user groups
- Linking files
- Exercise: Setting and access permissions

DAY 3

Session 8: FILTERING TEXT

- Overview
- The cut command
- An introduction to awk
- The nl command
- Exercises: Filtering Text

Session 9: PROCESSES

- What is a process?
- Monitoring processes
- Killing processes
- Background processes
- Job Control
- Grouping commands
- Exercise: Monitoring and controlling processes

Session 10: THE USER ENVIRONMENT

- Customising the .profile or .bash_profile
- Customising the .kshrc or .bashrc
- Exercise: Setting up an environment

Session 11: MORE BASIC COMMANDS

- The find command
- Using xargs command
- The locate command
- The df command
- The cut command
- The sort command
- Finding duplicate content
- The finger and pinky commands
- Exercise: More Basic Commands