

AIX Fundamentals

DAY 1

Course Introduction

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

Session 1: INTRODUCTION TO THE AIX OPERATING SYSTEM

- A brief history of UNIX
- The UNIX kernel
- The UNIX file system
- A login Session
- 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
- Using the locate command
- The df command
- The cut command
- The sort command
- Finding duplicate content
- The finger and pinky commands
- Exercise: More Basic Commands

DAY 4

AIX Fundamentals Training Course

Session 12: UNIX COMMAND REVIEW

- Basic Unix commands
- General commands
- File and directory handling commands
- Filename generation characters and regular expressions (regex)
- I/O Redirection features
- Other commands

Session 13: GETTING STARTED

- What is a shell script?
- Development guidelines
- Creating and editing shell scripts
- Naming and storing shell scripts
- Executing shell scripts
- Exercise: Write a simple shell script

Session 14: USING VARIABLES

- Environment variables
- Local variables
- Assigning values to variables
- Assessing variable values
- Using quotes

- Delimiting variable names
- echo control sequences
- Exercise: Add variables to a script

Session 15: INTEGER ARITHMETIC

- Using the expr command
- Using the (()) notation
- Exercise: Add integer arithmetic to a shell script

Session 16: HANDLING RUN TIME DATA

- The read command
- Command line arguments
- Exercise: Writing a generic shell script
- Exercise: Writing an interactive shell script

Session 17: CONDITIONAL EXECUTION

- The if statement
- The test command
- Exercise: Adding validation to previous scripts

Session 18: ADDITIONAL KORN, BASH & POSIX SYNTAX

- Other test notations
- Default and substitute variables
- Exit status codes
- Exercise

DAY 5

Session 19: LOOP CONSTRUCTS

- The while loop
- The until loop
- The for loop
- The while true and until false loops
- Loop control commands
- Exercise: Enhancing the previously written scripts
- Exercise: Writing a script to copy files using a 'for' loop
- Exercise: Writing a script to generate numbers with the 'while' loop

Session 20: MULTI-BRANCH DECISIONS

- The case statement
- Menu driven applications

- Exercise: Developing and writing a menu system

Session 21: FUNCTIONS

- What is a function?
- Syntax
- Examples
- Exercise: Add a function to a script

Session 22: INTERRUPT HANDLING

- Interrupt signals
- Trapping interrupts
- Exercise: Adding traps to the menu script

Session 23: ADDITIONAL FEATURES AND FACILITIES

- The exec commands
- The includes notation
- More about loops
- Arrays
- Here Documents
- Exercise: Create a here script