

UNIX Shell Programming

Course Outline

Day 1

Course Introduction

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

Session 1: UNIX COMMAND REVIEW

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

Session 2: 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 3: 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 4: INTEGER ARITHMETIC

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

Session 5: HANDLING RUN TIME DATA

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

Session 6: CONDITIONAL EXECUTION

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

Session 7: ADDITIONAL KORN, BASH & POSIX SYNTAX

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

DAY 2

UNIX Shell Programming Training Course

Session 8: 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 9: MULTI-BRANCH DECISIONS

- The case statement
- Menu driven applications

- Exercise: Developing and writing a menu system

Session 10: FUNCTIONS

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

Session 11: INTERRUPT HANDLING

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

Session 12: ADDITIONAL FEATURES AND FACILITIES

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