

Linux Shell Programming

Course 108 – 24 Hours

Overview

This course provides a comprehensive introduction to shell programming using the CShell (csh) and BASH shell (bash). A shell is a command-interpreting language used in UNIX, Linux, and Mac OS/X.

Course Objectives

- Understanding different shells
- Learn how to use the interactive shell effectively
- Learn how to write shell scripts to automate tasks

Who Should Attend

The course is designed for Linux users/programmers/administrators who want to master shell usage.

Prerequisites

Students should have a basic knowledge in Linux

Course Contents

A Course Introduction

- Course Objectives
- Course Delivery
- Course Practical
- Course Structure

Shell Introduction

- What is a shell
- Different shells
 - Bash
 - Cshell
 - Python
 - More shells
- Redirection
- Pipes

Useful commands

- cut
- sort
- uniq
- grep
- history

- alias
- configuration files
- startup files
- wildcards
- which
- echo
- exec and job control

Variables

- overview
- assigning values
- arrays
- using the values
- built in and predefined variables

Writing scripts

- the path
- creating a simple scripts
- comments
- command line and parameters
- shift
- prompting

Conditions

- string tests
- if – else expression
- testing files
- and/or/not
- switch

Loops

- while loop
- for loop
- exit status
- arithmetic

Advanced option

- debugging scripts
- signals
- sub-scripts
- regular expressions
- sed
- awk