

## Linux Shell Programming

**Duration: 2 Days**    **Course Code: LSP**    **Delivery Method: Virtual Learning**

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### Overview:

#### Linux Shell Programming Course Overview

This Linux Bash Shell Programming training course is designed to give delegates practical experience in developing and writing LINUX shell scripts. Most of the built-in shell commands are introduced together with the main program control structures. This course is not suitable for C shell programmers.

Similarly, the course is targeted to closely follow the official Linux Professional Institute (LPI) curriculum for certification.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

#### Who will the Course Benefit?

Programmers, administrators and support personnel who need to understand existing shell scripts, automate procedures and write their own utilities.

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### Objectives:

- Course Objectives
  - To provide the skills needed to develop and customise shell programs.
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### Prerequisites:

- The Linux Shell Programming course assumes knowledge of the LINUX Operating System to the level covered in the Linux Introduction course. Some programming experience may also prove advantageous.
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### Follow-on-Courses:

#### Further Learning

- Linux System Administration (LPI)
  - Linux Advanced Shell Programming Tools
  - Linux Networking
  - Oracle SQL
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## Content:

### Linux Shell Programming Training Course Course Contents - DAY 1

#### Course Introduction

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

#### Session 1: LINUX COMMAND REVIEW

- Basic Linux commands
- General commands
- File and directory handling commands
- Filename generation characters and regular expressions (regex)
- 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 Linux Shell Programming Training Course Course Contents - DAY 2

#### 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
- 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

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)