

HP-UX Fundamentals

Duration: 5 Days Course Code: HF

Overview:

HP-UX Fundamentals Course Overview

This Hewlett Packard HP-UX Operating System and Posix Shell Programming training course introduces the delegate to the main concepts of the HP-UX Operating System. The most commonly used commands are described in detail as are the command line wildcard and redirection facilities. The mechanisms by which a user acquires a login environment are discussed and the main features of the Korn/Posix/Bash Shells are introduced.

The course is designed to give delegates practical experience in developing and writing shell scripts. Most of the built-in shell commands are introduced together with the main program control structures.

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

Target Audience:

Who will the Course Benefit?

There are no formal pre-requisites for the HP-UX Fundamentals course, although an understanding of and exposure to information technology is advantageous.

Programmers, administrators and support personnel who need to understand the HP-UX Operating system, existing shellscripts, automate procedures and write their own utilities.

Some programming experience may also prove advantageous.

Objectives:

- Course Objectives
 - To provide the skills needed to work productively in an HP-UX environment to develop and customise shell programs.
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Prerequisites:

- There are no formal pre-requisites for this HP-UX Fundamentals training course, although an understanding of and exposure to information technology and an understanding of operating systems is required.
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Follow-on-Courses:

Further Learning

- HP-UX System Administration
 - Oracle SQL
 - HP-UX Advanced Shell Programming Tools
 - Linux Networking
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Content:

HP-UX Fundamentals Training Course Course Contents - DAY 1

Course Introduction

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

Session 1: INTRODUCTION TO THE HP-UX OPERATING SYSTEM

- A brief history of UNIX / Linux
- The UNIX / Linux kernel
- The UNIX / Linux file system structure
- File and directory management commands
- Absolute vs Relative Pathnames
- Further basic commands
- Exercise: Navigating the file system

Session 2: BASIC COMMANDS

- Command line syntax
- Basic file handling commands
- Basic Directory handling commands
- Filename wildcard characters
- Using commands with logical AND and OR
- Sequential command execution
- Exercise: Manipulating files and directories

Session 3: REDIRECTION AND PIPES

- Input and Output redirection
- Redirecting errors
- Piping commands
- Exercise: Using redirection and pipe facilities

Session 4: INTRODUCTION TO THE vi/Vim EDITOR

- Overview of the vi/Vim editor
- The language of vi
- Undoing and Redoing changes
- Input Mode and Last Line Mode
- Further vi functions
- Executing commands within vi / Vim
- Customising the vi / Vim Environment
- Getting Help
- Exercises: Using the vi editor

Session 5: SEARCHING AND REPLACING TEXT

- Searching and replacing text using the vi/Vim 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 8: FILTERING AND FORMATTING TEXT

- Overview
- The paste command
- 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
- Number sequencing
- Exercise: More Basic Commands

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

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: HP-UX Fundamentals Training Course Course Contents - 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

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
- HP-UX Fundamentals Training
Course Course Contents - DAY 3

- 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

Further Information:

For More information, or to book your course, please call us on 030 - 60 89 444

info@globalknowledge.nl

www.globalknowledge.com/nl-nl/

Iepenhoeve 5, 3438 MR Nieuwegein