UNIX Advanced Shell Programming Tools

Category: Infrastructure & IT Operations | **Vendor:** Various

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

The UNIX Advanced Shell Programming Tools course is designed to give delegates practical experience using a range of UNIX tools to manipulate text and incorporate them into UNIX shell scripts.

About This Course

The UNIX Advanced Shell Programming Tools course is designed to give delegates practical experience using a range of UNIX tools to manipulate text and incorporate them into UNIX shell scripts.

Who Should Attend

Programmers, developers and system administrators who need to construct shell scripts using advanced text handling facilities.

Prerequisites & Entry Requirements

General Prerequisites:

The UNIX Advanced Shell Programming Tools course assumes knowledge of the UNIX Operating System to the level covered in the
UNIX Introduction (UI)course. Some shell programming experience to the level covered in UNIX Shell Programming (SP) is also necessary.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Backing up and restoring files with tar
- File compression
- Scheduling background jobs with crontab and at
- Comparing file contents
- Splitting files
- Identifying and translating characters
- Review of regular expressions
- Editing text files with sed
- Pattern scanning and report generating with awk
- Debugging awk scripts
- Miscellaneous commands

Detailed Course Outline

Course Contents - DAY 1

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

Session 1: BACKUP AND RESTORE UTILITIES

- The tar command
- Compression utilities gzip, bzip2, zip and compress
- Exercise: Backing up and restoring files using tar

- Exercises: Compressing files

Session 2: BACKGROUND JOB SCHEDULING

- Scheduling jobs with the cron command

- Scheduling jobs with the at command

- Exercises: Running background jobs

Session 3: COMMANDS FOR COMPARING FILES

- Compare two files with the cmp command

- Compare two files with the comm command

- Compare two files with the diff and sdiff commands

- Compare large files with the bdiff command

- Exercises: Identifying file differences

Session 4: SPLITTING FILES

- The split and csplit commands

- Exercises: Splitting files

Course Contents - DAY 2

Session 5: IDENTIFYING AND TRANSLATING CHARACTERS

- od - octal dump

- Use cat to display non-printing characters

- The expand and unexpand commands to convert between tab and space characters

- The tr command for character translation

- Exercises: Translating characters with tr

Session 6: REGULAR EXPRESSION NOTATION REVIEW

- Standard regular expressions

- Extended regular expressions

Session 7: THE STREAM EDITOR - sed

- sed command line syntax

- sed command processing

- Pattern space

- sed addresses

- sed commands

- Hold and get functions

- Advanced flow control

- Exercises: Text processing with sed

Session 8: INTRODUCTION TO THE PATTERN SCANNING UTILITY - awk

- Introduction and command line syntax

- The awk program structure

- Operators

- Simple patterns

- Extended patterns

- Special patterns (BEGIN and END)

- Program variables: Built-in variables, User defined variables, Arrays
- Mathematical operators
- Displaying output with print and printf
- Exercises: Create awk scripts to extract selected data from a file and generate reports

Course Contents - DAY 3

Session 9: awk PROGRAM CONTROL STRUCTURES

- Program control structures
- The if construct
- The while and do ... while constructs
- The basic for construct
- Associative array handling
- Functions: Mathematical and string functions, The system function, The getline function, User defined functions
- Exercises: Create an awk script using an program control structures and arrays

Session 10: awk DEBUGGING AWK SCRIPTS

- Responding to Syntax errors
- Responding to Logical errors

Session 11: MISCELLANEOUS TOOLS

- bc (calculator)
- fuser (testing for files in use)

- getops (checking options passed to shell scripts)
- printf (formatting screen output)
- logger (script logging)
- xargs (generating arguments for a command)
- eval (re-evaluating variables)
- Exercises: Using tools within a shell script

Skills You Will Learn:

- Backing up and restoring files with tar
- File compression
- Scheduling background jobs with crontab and at
- Comparing file contents
- Splitting files
- Identifying and translating characters
- Review of regular expressions
- Editing text files with sed
- Pattern scanning and report generating with awk
- Debugging awk scripts
- Miscellaneous commands

Frequently Asked Questions

Q: What delivery options are available for UNIX Advanced Shell Programming Tools?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 3-day UNIX Advanced Shell Programming Tools course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the UNIX Advanced Shell Programming Tools training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for UNIX Advanced Shell Programming Tools?

Yes, we provide corporate training, dedicated training, and closed classes for UNIX Advanced Shell Programming Tools. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: UNIX Advanced Shell Programming Tools, UNIX, UT

Q: Why choose Nexus Human for UNIX Advanced Shell Programming Tools?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your UNIX Advanced Shell Programming Tools training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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