



What is Unix Shell Scripting?

A computer program or a script written for the Unix shell, which is a command-line interpreter, is called Shell Scripting. The shell script can perform different operations including file manipulation, program execution, printing text, etc. Shell scripting allows you to use programming functions such as if/then/else statements, for loops, etc. directly with the operating system.

What are the uses of Shell Scripting?

- It enables you to automate the tasks that are required to be performed frequently.
- Shell Scripting is easy to use and portable, that is, not just for Unix, it could be used with any UNIX-type operating system.
- Sequence of commands could be run as a single command.

Why should you learn Unix Shell Scripting?

- The robustness and time-effectiveness of shell scripting helps considerably to speed up file management and other repetitive tasks
- There are not enough experienced professionals who are adept with shell scripting, which means less competition for you
- You can bag jobs such as Software Engineer – Unix/Linux, System Administrator, and other related jobs with top companies including IBM, Cisco, Intel, Salesforce and more!
- Consistent growth in salary packages for professionals in shell scripting.

Course Syllabus:

Introduction

- Basics of computer applications
- Unix Course Introductions
- Pre-requisites
- Course Summary

Unix Commands

Processing & Listing

- Processes and Directories
- Displaying Processes – ps
- Displaying Directories – ls
- Getting Help – man
- Simple Commands used for processing
- Using Wildcards

File Creation and Displaying

- Creating files – using > symbol
- Redirection – using >> symbol
- Redirecting Input – using < symbol
- Displaying Files – cat, more
- Piping – using | symbol
- Word Count
- Sorting a file
- Removing duplicates
- Transliteration
- Using Head and Tail command in files

Files Handling

- Creating directory
- Moving files to directories
- Copying files to directories
- Changing directory
- Removing files and directories
- Special Files – . and ..
- Creating Aliases
- Using Aliases

Cut and Paste

- Displaying selected characters – using cut
- Displaying selected fields – using delimiters
- Displaying selected files – using paste

- Using paste with delimiters

GREP and EGREP

- Displaying content of the file using GREP
- Displaying content of the file using EGREP
- EGREP Meta-character
- Back Referencing concepts
- Using POSIX command

ZIP & TAR

- Zipping a file
- Unzipping a file
- Combining a set of files using TAR
- Extracting TAR file
- Using TAR with ZIP

FIND command

- Searching for a file – using find
- Finding List of files and directories
- Finding Last modified files
- Find with -exec
- Find with -xargs

Handling Jobs

- Using /dev/null
- Foreground Jobs
- Background Jobs – &
- Stopping Jobs – kill
- Changing Permissions – chmod

Shell Programming

Introduction to Shell

- Basics of Shell
- Set and Unset a variable

- Displaying – using echo
- Using Expr
- Using Test
- Getting input – using read
- Header files of shell script – using Shabang (#!)
- Sample Shell script program

Command Substitution

- Assigning a command to a variable
- Storing output to a variable
- Assigning global value – using Export

Command Line Arguments

- Passing input in runtime.
- Using input inside a program

Conditional & Looping Statement

- Using if statement
- Using if –else statement
- Using Nested if statement
- Using 'While' Loop
- Using 'Until' Loop
- Using 'For' Loop
- Using CASE

Functions

- Creating a function
- Calling a function in file
- Calling a function in another file

Advanced Commands

- SED
- Replacing values in a file
- STTY
- TOP

- Sending an email – using MAIL
- HERE

Editors

- NANO
- PICO
- GEDIT
- Vi Editor
- AWK
- Basics of AWK
- Displaying values – using awk
- Using awk in Shell script

Scheduler

- Scheduling a job – using ‘Crontab’
- Scheduling a job – using ‘at’
- Scheduling a job – using ‘nohup’

Advanced Shell Scripting

- Monitoring a file
- Extracting data from HTML/XML file
- Trapping Signals

Database Connectivity

- Connecting MYSQL to Shell
- Running SQL queries from Shell Script
- Generating a report and storing in a file Shopping cart