

Unix Course Content:

- Introduction to UNIX/LINUX
- History of UNIX/LINUX
- Features and Benefits of UNIX/LINUX
- Different flavors of UNIX/LINUX
- Difference between UNIX, DOS, Windows and LINUX
- Architecture of UNIX

UNIX File System Architecture

- Boot Block
- Super Block
- Inode Block
- Data Block

File System of UNIX

- Ordinary Files
- Directory Files
- Device Files
- The Structure of UNIX File system

Different UNIX Commands

- pwd, who, whoami
- exit, date, cal, exit, banner

Links

- Hard Link
- Soft link or Symbolic Link
- Unlink

Complex Filters

- tr, comm., tee, sed, nl

Working with Files

- cat, touch, rm
- cp, mv, ln, wc

Working with Directories

- mkdir, cd, rmdir, rm

Displaying Files

- ls, ls with options

Simple Filters

- pg, more, less, head, tail, paste, cut, sort

Zip Files

- gzip, gunzip, zcat, compress
- Uncompress, pack, unpack and Pcat

Printing Files

- lp, cancel

Finding Files

- find, locate etc.,

Input and Output Redirection

- Redirecting Output
- Redirecting Input
- Standard error

Shell Meta Characters

- File substitution
- I/O redirection
- Process Execution

- Quoting meta characters
- Positional parameters
- Special Parameters

More Filters

- grep, grep with options
- fgrep, egrep

Regular Expressions and Patterns

- What is Pattern?
- Usage of regular expression
- Different types of patterns

How C programs are useful for solving problems in UNIX

UNIX Commands

- Uniq
- Diff
- cmp

Backup Utilities

- tar, cpio

Piping

- Usage of piping
- Piping with filters

File Permissions

- chmod, chown, chgrp, umask

Communication Commands

- write, wall, mail, mail with options

Networking commands

- telnet, ftp, rlogin, finger, etc..

Disk Utilities

- df, du, mount, unmount

Job Control

- Foreground jobs
- Background jobs
- Killing jobs
- Nohup

Process Status

- Ps
- Kill
- Pkill

Job scheduling

- At
- Crontab
- Batch

ed, ex and vi editors

- Command mode
- Insert mode
- Ex command mode

Shell Scripting

- What is shell scripting?
- Importance of shell scripting
- Different types of shells
- Creating Shell script
- Making shell script executable

Shell Input and Output

- echo, print, read

Backslash character constants aliases and History concept variables

- What is a variable?
- System defined variables
- Environment Variables
- User defined variables
- Constant variables
- Local and Global variables
- Special Variables
- Comments

Operators

- Arithmetic Operators
- Relational Operators
- Relational ASCII operators
- Logical Operators
- Assignment Operators

Flow Control Structure

- If, if...else
- If... elif
- Case

Looping

- while, until, for, break, continue

Formatted I/O

Namespaces in UNIX

Introduction to Message Queues

Introduction to Different Types of System Calls

Programming Aspects of Berkeley Sockets & Reserved Ports

UNIX Domain Protocol

Socket Addresses