Linux Basic Commands

Getting Started to Unix
- Introduction to operating system
- Introduction to Unix
- Features of Unix
- Introduction to Unix file system Structure
- Unix directories files and inodes

Introduction to shell
- Understanding shell uses
- Types of shells in Unix
- Features for shell

Basics UNIX Commands
- Unix commands with their functions
- Create, delete of files with options
- Create, delete directories with options
- Copy files, & directories with options
- Files, directories modification commands
- Files, directories removing commands
- Files, directories renaming commands
- List files, directories with permissions

Introduction to VI Editor
- Introduction to Visual editor
- Understand VI editor functions and use
- Types of modes in VI editor Creation of Shell scripts using VI editor

File access Permissions
- Introduction to file access permissions
- Understand unmask and its advantages
- Advantages of file access permissions
- Methods of the access permissions
- Like absolute and symbolic methods
- Creation deleting file permissions

Communication tools
- Introduction to communication tools
- Understand types of communication tools
- Like write, wall, talk and mail
  - Working with communication tools

Types of filters
- Introduction to filters and their advantages
- Understanding uses of filters
- Understanding types of filters like
- Simple filters (more, less , tail, head, sort, wc, paste)
- Advanced filters (find, grep, sed and awk
- Work with filters

Introduction to links
- Introduction to links and their advantages
- Understanding links between the files and directories
- Understanding types of links like soft / hard
- Creation and removing links

Introduction to process Scheduling
- Introduction to process management
- Understanding system process & user process
- Understanding different types of processes (Fore ground and Back ground process)

Introduction to Process Killing

- Understand different killing signals on Unix
- List killing signal with their functions
- Advantages of killing signals
- Kill process with process id
- Kill process with process name

Admin Paper - 1
System Administration
Installation (Text and Graphical Mode)
- Stand-alone Installation
- NFS Installation

File system Management
- Disk partition
- Manage Partitions
- Under stand file system
- Convert file system ext2 to ext3
- Revert file system ext3 to ext2
- Understand Virtual file system / proc
- Manage a data with mount command
- Mount file system
- Mount CD/DVD's USB and Floppy
- Understand'/etc/fstab' & '/etc/mtab'files

User and Group Management
- Creation of Users and Groups
- Understand '/etc'passwd','/etc/group',&'/etc/shadow'
- Switch accounts between 'su' & 'Sudo'
- Password aging policies
- Creation of quotas for user's group and files systems

System Initialization
- Boot sequence overview
- Bios initialization
- Boot loader
- 'Grub' boot loader & configuration file
- Trouble shoot of grub boot loader
- Kernel initialization
- Kernal overview
- Kernal Hardware support
- Configure Kernel parameters

Backups
- Understand of Different Backups
- Backups with dump / Restore, cpio, tar / star

LVM's (logical Volume Manager)
- Overview of LVMs
- Creation of Physical Volumes
- Creation of Volume Groups
- Creation logical partition
- Extend the vol group
- Extend the Logical Partition
- Remove vol group and Logical Partition

RPM
- Overview of RPM
- Install, Remove software with RPM
- RPM Queries
- RPM Verifications
- YUM Concept & Configure

Xinted Services

- Xinted services & non-xinted services
- Configure xinted and non-xinted services

Printing and Administrating Tools

Configure a stand-alone printer

Configure a Network Printer

- LPD
- Cups

DEMO'S IN LAB
* * * AS SCHEDULED * * *

Network and Security Services

Network Configuration

- Configure Network utilities
- Netconfig, setup, neat and with configuration file
- Ifdown / ifup, ifconfig, ping
- Binding multiple address
- Configure range of ip-address
- Ssh, Telnet
- Rcp / scp
- Write / wall

FTP Services

- Ftp Overview
- Configure ftp Server and ftp clients
- Configure ftp server for Anonymous users and Real users
- Secure ftp server

NFS Services

- NFS Overview
- NFS Advantages and Disadvantages
- Configure NFS Server
- Configure NFS Client
- Configure NFS Client with / etc/fstab file
- Configure NFS Client with Auto mount services

DNS

- Understand DNS Services
- Configure types of DNS
  1. Primary DNS
  2. Secondary DNS
  3. Forwarder and Cache DNS

DHCP

- Overview of DHCP Services
- Configure DHCP Server
- Configure DHCP Client in heterogeneous platform

Configure Web Server with APACHE services

- Apache Overview
- Apache Configuration
- Virtual hosts
- Configure IP-Based DNS, Name based DNS and PORT based DNS
- Configure member logins for web server

Monitoring Tools

- Overview of SAMBA

- Install and Configure SAMBA Server
- Configure SAMBA Server with heterogeneous platforms
- Configure SAMBA shares between UNIX-windows Vice Versa
- Configure SAMBA share with different levels of Security
- Tracking to message flow
- Using Queue Viewer

RAID

- Overview of RAID
- Types of RAIDS
- Configure RAID 0.1 and 5