CAP448:LINUX AND SHELL SCRIPTING

L:3 T:0 P:0   Credits:3

Course Outcomes: Through this course students should be able to

CO1 :: understand the installation process of Linux and the working of file system utilities.

CO2 :: understand how to administer a Linux machine and configure different Linux servers like samba, ftp, apache and nfs.

CO3 :: use the various file editors and the modes to edit the files.

CO4 :: analyze the shell scripting and programming in Linux using Bourne Again shell and TC shell.

Unit I

Getting started with Linux and Installation Guide : History of UNIX and GNU–Linux, What Is So Good About Linux?,, Overview of Linux, Additional Features of Linux, Booting Linux Installation Program, Partitioning Hard Drives, Setting up Swap Space, Choosing Partitions to Format Booting with LILO, Multi-boot with Other Operating Systems, Logging In from a Terminal or Terminal Emulator, More About Logging In

Unit II

Utilities and Filesystems : Basic Utilities, Working with Files, Pipe, Four More Utilities, Compressing and Archiving Files, Locating Commands, Obtaining User and System Information,, Communicating with Other Users, Directory Files and Ordinary Files, Pathnames, Working with Directories, Access Permissions, Access Control Lists, Links

Unit III

The Shell and popular editors : The Command Line, Standard Input and Standard Output, Running a Command in the Background, Filename Generation/Pathname Expansion, Builtins, Using VIM to Create and Edit a File, Introduction to vim Features, Command Mode, Input Mode, Emacs versus Vim, Getting Started with Emacs, Basic Editing Commands

Unit IV

The Bourne Again Shell and TC Shell : Shell Basics, Parameters and Variables, Special Characters, Processes, Re-executing and Editing Commands, Aliases, Functions, Controlling bash, Entering and Leaving the TC Shell, Features Common to the Bourne Again and TC Shells

Unit V

Programming the Bourne Again Shell : Control Structures, File Descriptors, Parameters and Variables, Builtin Commands, Expressions

Unit VI

Linux System Administration : System Administrator and Superuser, Rescue Mode, SELinux, System Operation, System Administration Utilities, Setting Up a Server, Important Files and Directories, File Types, Filesystems, Configuring User and Group Accounts, Backing Up Files, Scheduling Task, System Reports, Parted

Text Books:
1. A PRACTICAL BEGINNING REDHAT LINUX 9 by SANDEEP BHTTACHARAYA, WROX PROGRAMMER

References:
1. A PRACTICAL GUIDE TO LINUX COMMANDS, EDITORS AND SHELL by MARK G. SOBELL, PEARSON