CSE308:COMPUTING PRACTICUM-IV

L:0   T:0   P:3   Credits:2

Course Outcomes: Through this course students should be able to

CO1 :: understand advance features of Bash shell, shell scripts

CO2 :: simulate AVLs on files and manage security of a server by using SELinux

CO3 :: devise and manage storage devices, partitions, file systems, and swap spaces from the command line

CO4 :: determine network -attached storage using the NFS protocol

CO5 :: analyze the boot process to control services offered and to troubleshoot and repair problems

CO6 :: analyze the scheduling priority of processes and tasks for automatic execution in future.

List of Practicals / Experiments:

Improving Command-line productivity
- Writing Simple Bash Scripts
- Running commands More Efficiently Using Loops
- Matching Text in Command Output with Regular Expressions

Scheduling Future Tasks
- Scheduling a Deferred User Job
- Scheduling Recurring User Jobs
- Scheduling Recurring System Jobs
- Managing Temporary Files

Tuning System Performance
- Adjusting Tuning Profiles
- Influencing Process Scheduling

Controlling Access to Files with ACLs
- Interpreting File ACLs
- Securing Files with ACLs

Managing SELinux Security
- Changing the SELinux Enforcement Mode
- Controlling SELinux File Contexts
- Adjusting SELinux Policy with Booleans
- Investing and Resolving SELinux Issues

Managing Basic Storage and Logical Volumes
- Adding Partitions, File Systems, and Persistent Mounts
- Managing Swap Space
- Creating Logical Volumes
- Extended Logical Volumes

Implementing Advanced Storage Features
- Managing Layered Storage with Stratis
- Compressing and Deduplicating Storage with VDO

Accessing Network-Attached Storage
- Mounting Network-Attached Storage with NFS
- Automounting Network-Attached Storage

Controlling the Boot Process

- Selecting the Boot Target

- Resetting the Root Password

- Repairing File System Issues at Boot

Managing Network Security

- Managing Server Firewalls

- Controlling SeLinux Port Labeling

Installing Red Hat Enterprise Linux

- Installing RedHat EnterpriseLinux

- Automating Installation with Kickstart

- Installing and Configuring Virtual Machines

Text Books: 1. RHCSA/RHCE RED HAT LINUX CERTIFICATION PRACTICE EXAMS WITH VIRTUAL MACHINES (EXAMS EX200 & EX300) by MICHAEL JANG, Tata McGraw Hill, India

References: 1. RHCSA/RHCE RED HAT LINUX CERTIFICATION STUDY GUIDE EXAMS EX200 & EX30 by ORSARIA JANG, Tata McGraw Hill, India