Linux System Administration Level 2

Course Duration: 1 month

1. **Automating Installation with Kickstart**

   - **Defining the Anaconda Kickstart System**
   - **Practice: Kickstart File Syntax and Modification**
   - **Deploying a New Virtual System with Kickstart**
   - **Practice: Installing a System Using Kickstart**
   - **Chapter Test: Automating Installation with Kickstart**

2. **Using Regular Expressions with grep**

   - **Regular Expressions Fundamentals**
   - **Practice: Match the Regular Expression**
   - **Matching Text withgrep**
   - **Practice: Using grepwith Logs**
   - **Lab: Using Regular Expressions with grep**

3. **Creating and Editing Text Files with vim**

   - **Lab: Edit a System File with vim**
   - **Practice: Edit a File with vim**
   - **Editing with vim**
   - **Practice: Basic vim Workflow**
   - **Basic vim Workf low**
   - **Practice: vim Modes**
   - **The vim Text Editor**

4. **Scheduling Future Linux Tasks**

   - **Scheduling One-Time Tasks with at**
   - **Practice: Scheduling One-Ti me Tasks with at**
   - **Scheduling Recurring Jobs with cron**
   - **Practice: Scheduling Recurring Jobs with cron**

- Scheduling System cron Jobs
- Practice: Scheduling System cron Jobs
- Managing Temporary Files
- Practice: Managing Temporary Files
- Chapter Test: Scheduling Future Linux Tasks

5. **Managing Priority of Linux Processes**

- Process Priority and "nice" Concepts
- Practice: Process Priority and "nice" Concepts
- Using nice and renice to Influence Process Priority
- Practice: Discovering Process Priorities
- Lab: Managing Priority of Linux Processes

6. **Controlling Access to Files with Access Control Lists (ACLs)**

- POSIX Access Control Lists (ACLs)
- Practice: Interpret ACLs
- SecurinqFiles with ACLs
- Practice: Using ACLs to Grant and Limit Access
- Lab: Controlling Access to Files with Access Control Lists (ACLs)

7. **Managing SELinux Security**

- Enabling and Monitoring Security Enhanced Linux(SELinux)
- Practice: SELinux Concepts
- Changing SELinux Modes
- Practice: Changing SELinux Modes
- Changing SELinux Contexts
- Practice: Changing SELinux Contexts
- Changing SELinux Booleans
- Practice: Changing SELinux Booleans
- Troubleshooting SELinux
- Practice: Troubleshooting SELinux
- Lab: Managing SELinux Security

8. **Connecting to Network-defined Users and Groups**

- Using Identity Management Services
- Practice: Connecting to a Central LDAP and Kerberos Server
- Lab: Connecting to Network-defined Users and Groups

9. **Adding Disks, Partitions, and File Systems to a Linux System**

- **Adding Partitions, File Systems, and Persistent Mounts**
- **Practice: Adding Partitions, File Systems, and Persistent Mounts**
- **Managing Swap Space**
- **Practice: Adding and Enabling Swap Space**
- **Lab: Adding Disks, Partitions, and File Systems to a Linux System**

10. **Managing Logical Volume Management (LVM) Storage**

- **Logical Volume Management Concepts**
- **Practice: Logical Volume Management Concepts**
- **Managing Logical Volumes**
- **Extending Logical Volumes**
- **Practice: Adding a Logical Volume**
- **Practice: Extending a Logical Volume**
- **Lab: Managing Logical Volume Management (LVM) Storage**

11. **Accessing Network Storage with Network File System (NFS)**

- **Mounting Network Storage with NFS**
- **Practice: Mounting and UnmountingNFS**
- **Automounting Network Storage with NFS**
- **Practice: Automounting NFS**
- **Lab: Accessing Network Storage with Network File System (NFS)**

12. **Accessing Network Storage with SMB**

- **Accessing Network storage with SMB**
- **Practice: Mounting a SMP File System**
- **Lab: Accessing Network Storage with SMB**

13. **Controlling and Troubleshooting the Red Hat Enterprise Linux Boot Process**

- **The Red Hat Enterprise Linux Boot Process**
- **Practice: Selecting a Boot Target**
- **Repairing Common Boot Issues**
- **Practice: Resetting a Lost root Password**
- **Repairing File System Issues at Boot**
- **Practice: Repairing Boot Problems**
- **Repairing Boot Loader Issues**

- **Practice: Repairing a Boot Loader Problem**
- **Chapter Test: Controlling and Troubleshooting the Red Hat Enterprise Linux Boot Process**

14. Limiting Network Communication with firewalld

- **Limiting Network Communication**
- **Practice: Limiting Network Communication**
- **Lab: Limiting Network Communication**