## **Getting Started With Linux**

- 1. Introduction
  - a. History
  - b. Unix Architecture (Hardware, kernel, application)
  - c. Important Concepts
    - i. Kernel
    - ii. Shell and Environment
    - iii. Directory Structure
    - iv. Commands and applications
- 2. User Management
  - a. Root vs Non-root User
  - b. Important Files (/etc/passwd, /etc/shadow, /etc/groups, /etc/gshadow)
  - c. Utilities to execute commands as root (Sudo, Suid/Guid binaries)
  - d. Creating/Modifying/Deleting Users and Groups
- 3. File Permissions
  - a. Ownerships (Owner, Groups, Other)
  - b. File Access Modes (Read, Write, Execute)
  - c. Changing Ownership and File Permissions
- 4. Command-Line Text Editors
  - a. Vim
  - b. Nano
- 5. Processes
  - a. Listing Processes
  - b. Monitoring Resource consumed by the process
  - c. Killing Processes
- 6. Network
  - a. Interfaces
  - b. DNS Information and Hosts File
  - c. Identifying Open ports and associated process
  - d. Identifying Established connections
- 7. Steams, Pipe, and Redirection
- 8. Cron
- 9. Package management and tool installation
- 10. Popular Linux command and utilities