

# Linux Course Content

## Module-1: Introduction to Linux

- Overview of Operating System
- Types of Operating Systems
- History of Unix / Linux
- Advantages of Unix / Linux
- Linux Distributions
- Difference b/w RHEL, Centos and Fedora, Debian, Ubuntu, etc.
- Windows vs. Linux

## Module-2: Virtual Machine Setup (Manual)

- Overview of VM
- Installing Chocolate Package Manager
- Installing Oracle Virtual Box Manager
- Downloading the CentOS Disk Image
- VM setup with CentOS
- Downloading the Ubuntu Disk Image
- VM setup with Ubuntu
- Start VM
- Stop VM
- VM Disc Space Details

## Module-3: Virtual Machine Setup (Automation)

- Overview of Vagrant
- Vagrant Architecture
- Vagrant Use cases
- Vagrant Installation
- Vagrant Boxes
- Vagrant Files
- Providers
- Automate VM Setup using Vagrant
- Vagrant IP, RAM and CPU
- Vagrant Sync Directories
- Provisioning
- Multi VM Vagrant file setup
- Vagrant Share
- Vagrant up
- Vagrant SSH

## Module-4: SSH Client Installation

- SSH Overview
  - Downloading and installing MobXterm
  - Connecting to VM from MobaXterm using SSH
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## **Module-5: Linux Concepts**

- Introduction to Linux
- Directories and File Systems
- File Types
- Commands like mkdir, cp,mv,touch and more
- vim editor
- Filters
- Redirections
- Users and Groups
- Permissions: sudo
- Package Management
- Services
- Process
- Archiving

## **Module-6: Shelling Scripting**

- Overview of Shell Scripting
- Variables
- System Variables
- Command line arguments
- User Input
- Decision making
- Monitoring Script
- Loops, while Loops
- Remote Command Execution
- SSH Key Exchange

