

Deep-Dive Network Automation

Module-1: Python Fundamental

- 1.1 - Installation of python
- 1.2 - Number and Math with Python
- 1.3 - Format Dtring Variable
- 1.4 - Using Build-in Methods
- 1.5 - Dictionaries
- 1.6 - Lists
- 1.7 - Nested Objects
- 1.8 - Working with Files & Directories
- 1.9 - WITH Statement
- 1.10 - Functions
- 1.11 - Conditionals
- 1.12 - For Loops
- 1.13 - Using Netmiko to Connect to Network Devices

Module-2: Advanced Python

- 2.1 - Using Netmiko
- 2.2 - Built-in Input Function
- 2.3 - SysArgv
- 2.4 - Argparse
- 2.5 - Using Regex
- 2.6 - Parsing Data Using Regex
- 2.7 - TextFSM

Module-3: GIT Fundamental

- 3.1 - Introduction to GIT
- 3.2 - GIT Setup
- 3.3 - GIT Repositories
- 3.4 - Adding Files to GIT
- 3.5 - Modifying Files in GIT
- 3.6 - Ignoring Files in GIT
- 3.7 - Reverting Changes

- 3.8 - Merging Branches
- 3.9 - Remote Repositories

Module-4: Network Automation and Programming

- 4.1 - Introduction to Network Management Automation
- 4.2 - Network Management Automation Protocols
- 4.3 - Controller-Based SDN Architecture
- 4.4 - SDN Concept
- 4.5 - Introduction to Northbound and Southbound APIs
- 4.6 - Introduction to DNA Center
- 4.7 - Elements of Intent Based Networking
- 4.8 - Characteristics of Rest-Based APIs
- 4.9 - Encoding Data with JSON

Module-5: Ansible

- 5.1 - Introduction to Ansible
- 5.2 - Ansible Installation
- 5.3 - Ansible Playbooks
- 5.4 - Ansible Gather Facts
- 5.5 - Ansible Debug and Troubleshooting
- 5.6 - Ansible Inventory
- 5.7 - Ansible Variables
- 5.8 - Ansible for Network Automation
- 5.9 - Ansible with Cisco
- 5.10 - IOS Commands
- 5.11 - IOS-XR Commands
- 5.12 - NX-OS Commands
- 5.13 - Ansible with Juniper
- 5.14 - Multi-Play Playbook
- 5.15 - Templates
- 5.16 - Conditionals
- 5.17 - Ansible Vault
- 5.18 - Ansible Roles
- 5.19 - Ansible Tower with AWX Introduction
- 5.20 - Create Custom Modules
- 5.21 - Ansible with AWS



Module-6: DevOps

6.1 Introduction to Docker Container

6.2 Introduction to Kubernetes

6.3 Basics of Linux OS

6.4 Basics of Software Development

6.5 Introduction to CI/CD Pipelines

6.6 Understanding of API

6.7 Introduction to Jenkins

6.8 Integration with Jenkins for Automation

6.9 Introduction to Grafana

