NGINX Web Server Administration

Duration: 4 days (8hrs/day)

Prerequisites: Basic knowledge of Linux.

Course Objective: The Nginx Web Server Administration course provides validation of a professional's ability to manage, configure, and administer the Nginx web server platform, a popular choice for delivering websites and applications due to its high performance, scalability, and flexibility.

Nginx Version: Latest

Lab Requirement: Koenig DC (CentOS 9)

Module 1 - Introduction to NGINX and Installation

What is NGINX

What is HTTP and How Does it work?

NGINX vs Apache

Install NGINX

Lab: Installing NGINX on Centos 9

Module 2 – NGINX as a Web Server

Understanding the NGINX Architecture

Understanding the Default NGINX Configuration

MIME Types

Overview of NGINX Modules

Lab: Simple Virtual Hosts and Serving Static Content

Lab: Handling Error Pages

Lab: Access Control with HTTP Basic Auth

Lab: Generating Self-Signed Certificates

Lab: Configuring the Host for SSL_TLS_HTTPS

Lab: Redirecting All Traffic to HTTPS

Lab: Adding Functionality to NGINX with Dynamic Modules

Module 3 - Reverse Proxy

Introduction to Reverse Proxy

Lab: Configuring NGINX as a Reverse Proxy

Lab: X-Real-IP

Lab: FastCGI Proxy for PHP_WORDPRESS with fastcgi_parameter

Lab: Simple Caching for Static Content

Module 4 - Load Balancing

Introduction to Load Balancing

Lab: Simple Load Balancer

Lab: Health Checks in Load Balancer

Lab: Understanding Passive Health Check

Lab: Parameter Configurations in Passive Health Checks

Lab: Active vs Passive Health Checks

Lab: Server Weights

Module 5 - The Caching Subsystem

Introduction to HTTP Caching

Understanding the HTTP Cache Control Headers

Lab: Cache Control Headers no-store

Lab: If-Modified-Since Header

Module 6 - Logging

Understanding of NGINX Logging

Lab: Configuring Custom Logging like Storing in Different Locations with Different Levels

Module 7 – Advanced NGINX Security

Introduction to Web Application Firewall

Introduction to NAXSI

Improving SSL Configuration

Lab: Installing and Configuring NAXSI

Lab: NAXSI- Custom Messages on Rule Matching Patterns

Module 8 – Compression

HTTP Compression

Accept Content Encoding

Lab: GZIP Compression for NGINX