

Computer Networking

Duration: 3 Months

Server 2012/2016/2019/2022

Windows server 2022

installing **Windows Server 2022**

- Review system requirements
- Comparison of Standard and Datacenter editions of Windows Server 2022
- Installing Windows Server 2022
- Using Server Manager to configure basic Server settings

Installing simple **Active Directory (ADDS)** (AD in single domain environment)

- Understanding Roles and Features
- Installing and configuring ADDS
- Setting new domain environment
- Verifying Active Directory configuration
- Connecting Windows 10 Client or Member servers in the domain

Managing **AD objects**

- Create and manage users and computers
- Create and manage groups and organizational units (OUs)
- Configuring organizational units (OUs) delegation
- Using Active Directory Admin Center
- Recovering deleted objects using AD Recycle bin

Managing **Server Storage**

- Determine when to use NTFS and ReFS File Systems
- Understanding volume types (RAID Levels)
- Configure RAID Levels
- Configure storage pools/spaces
- Implement and configure Data Deduplication
- Configuring File Sharing and NTFS permissions
- Configure NTFS permissions
- Configure NTFS Disk Quotas for users

Implementing **Core Networking: DHCP and DNS roles**

- Understanding DHCP DORA steps
- Install and configure DHCP server (Scope types, Options, DHCP reservation, Policies and Filters)
- Backing up & Restoring the DHCP database
- Install and configure DNS servers
- Understanding zone types
- Create and configure DNS zones and records
- Configure Zone properties
- Configure AD integrated zones
- Configure forwarders, root hints and recursion

Implementing **Complex AD environment**

- Understanding AD environment for enterprise setup
- Understanding Multiple DC's, Active Directory Domain Tree and Child domains
- Implementing Additional DC's
- Implementing Child domains
- Understanding and configuring different AD trust types

Managing **Active Directory** database

- Configure multiple user principal name (UPN) suffixes
- Configure a global catalog server
- Transfer and seize operations master roles (FSMO)
- Perform metadata cleanup
- Configure domain and forest functional levels
- Configure AD DS sites and subnets

Implement and manage **Group Policy Objects (GPOs)**

- Create and manage Group Policy Objects
- Back up, restore, import, and copy GPOs
- Configure processing order and precedence
- Force a Group Policy update
- Configure Group Policy settings
- Configure administrative templates
- Configure account policies
- Configure and apply Password Settings Objects (PSOs)

Monitor and maintain **Server Environment**

- Monitor workloads using Performance Monitor
 - Configure data collector sets
 - Overview of the Event Viewer
 - Monitor workloads using Resource Monitor
 - Using Windows Server Backup (WSB) to back up and restore data
 - Backup and Restore Data and AD environment
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